

# Implementation of Teams Games Tournament to Improve Student's Learning Activity and Learning Outcome: Classroom Action Research

Wahyu Lestari<sup>1</sup>, Ani Widayati<sup>2</sup>

<sup>1</sup> Universitas Negeri Yogyakarta, DIY, Indonesia; wahyulestari.2020@student.uny.ac.id

<sup>2</sup> Universitas Negeri Yogyakarta, DIY, Indonesia; ani\_widayati@uny.ac.id

---

## ARTICLE INFO

### *Keywords:*

TGT;  
Learning Activity;  
Learning Outcomes;  
Classroom Action Research.

---

### *Article history:*

Received 2021-08-03

Revised 2022-01-11

Accepted 2022-11-30

---

## ABSTRACT

This research purpose to improve the quality of accounting learning in certain aspects of learning activity and learning outcome through the implementation of the Teams Games Tournament (TGT) learning model. The design of Classroom Action Research (CAR) was used in this study. The research is organized into two cycles, where each cycle includes four important phases in CAR including: planning, action, observation, and reflection/evaluation. The data collection technique uses observations on seven indicators of learning activity and uses pre-test & post-test questions to determine an increase in student performance. The results of the study show that the Teams Games Tournament (TGT) model can improve the learning activity and learning outcomes of students in accounting subjects. The average score for student learning activities increased from 71.28% in cycle I to 90.03% in cycle II. The average academic performance in accounting increased from 81.56 on the first cycle test to 95.70 on the second cycle test. This study provides suggestions and recommendations for teachers to use the Teams Games Tournament (TGT) model, as this model can improve the quality of classroom learning, especially in aspects of learning activity and student learning outcomes.

*This is an open access article under the [CC BY-NC-SA](https://creativecommons.org/licenses/by-nc-sa/4.0/) license.*



---

### **Corresponding Author:**

Wahyu Lestari

Universitas Negeri Yogyakarta, DIY, Indonesia; wahyulestari.2020@student.uny.ac.id

---

## 1. INTRODUCTION

Education is a sector for humans to develop their potential and improve their quality. Education plays a very important role in human civilization. Humans can develop various sciences to achieve better quality through education. Improving the learning process is one way to raise the quality of education (Fitrah, 2017). If the learning process and learning activities are runs effectively and achieve the learning objectives, the quality of learning will be increase. This quality improvement occurs in the cognitive, psychomotor, and affective aspects of students. Student activities and learning outcomes are components

that become benchmarks in the quality of student education (Destiana, Suchyadi, & Anjaswuri, 2020), so this component is very important in assessing the quality of the teaching and learning process.

Learning activities are all the activities managed to achieve learning objectives so that students will have learning behavior. Student interactions and responses as well as student involvement in learning are aspects of learning activities (Groccia, 2018). Meanwhile, Sardiman (2014) and Watson et al (2017) suggest that student learning activities are divided into physical activity and psychological activity. Physical activity is an activity that requires students to actively use their limbs (making something, playing, or working). While psychic activities include listening, observing, remembering, describing, associating one thing to another, and so on. If students can active in the learning, then students will get a positive perception of the learning so that they can get higher learning outcomes (Park, Paik, & Koo, 2019).

In addition to learning activities, learning outcomes are also an important aspect that included in the indicators of improving the quality of learning. According to Sudjana (2017), learning outcomes are something that students get as a result of the learning process. Learning are grades, changes in behavior from not knowing to knowing, and an increase in the knowledge gained by students. Learning outcomes result in increased student understanding in cognitive, psychomotor, and affective aspects. These three areas are objects of assessment of the learning outcomes. However, among the three objects, the cognitive field is the one most valued by teachers because it relates to students' ability to understand the content of teaching materials. Meanwhile, Dwijayani (2018) revealed that learning outcomes are the results that given to learners in the form of an assessment after students participating in learning process.

From the observations made by researchers in class X Accounting at SMK Negeri 1 Wonosari, it shows that student learning activities are still low. This is shown from 32 students, only 7 students (25%) are actively asking and answering questions and 8 students (22%) are actively taking notes. In addition, there are 16 students (50%) who actually do other activities outside the context of learning. Based on the daily test scores on Basic Accounting subjects and the score of the final exams, it is known that the accounting learning outcomes of class X Accounting students at SMK Negeri 1 Wonosari for the 2019/2020 school year are still relatively low. This is shown in the daily test of the Basic Accounting showing that out of 32 students, as many as 13 students (40.6%) have not reached the minimum score. Meanwhile, on the final exam showed that out of 32 students, 11 students (34.4%) had not reached the KKM that had been determined by the school. The minimum score that has been determined is 75.

The data is strengthened by interviews conducted by researchers to class X Accounting at SMK Negeri 1 Wonosari. From the results of interviews conducted, the low of accounting learning outcomes are influenced by the conventional learning methods (teacher-centered) used by teachers. Conventional learning models cause students to be passive because students are only required to listen to the teacher's explanation. Students' learning motivation is also low because students are very bored following the monotonous learning, besides that students' creativity is also not optimally channeled. In addition, the learning media used by teachers are also less varied. In fact, LCD projectors have not been used optimally. Teachers are still focused on using modules or printed books so that learning activities tend to be teacher-centered. This causes students to be very bored in participating in learning. Students want a fun learning model, especially group learning so that learners can get a new atmosphere in learning. By studying groups, students can exchange ideas in the process of understanding the material. This will increase student learning motivation so that student learning outcomes are expected to be optimal.

There are several factors that must be considered in the selection of teaching methods (Abidin, 2016; Sianipar, Rambitan, Sairwona, & Zega, 2020; Suswanto, 2020) which include: suitability for goals, individual differences of students, teacher abilities, subject matter, classroom situations, the facilities that available, and so on. Cooperative learning model is group learning which is one of the modern learning models so that it can be used by teachers. The utilization of cooperative learning models is highly suggested by experts because it has several advantages compared to other learning methods. In line with the opinion expressed by Wina Sanjaya (2016) and Rahmawati et al (2018), that the cooperative learning model has several advantages, namely: reducing students' dependence on teachers, empowering students

to be more responsible in learning, improving academic achievement, and increasing student learning activities.

Teams Games Tournament is a group learning called cooperative learning model that can be applied by teachers in the learning process. In the theory proposed by Slavin (1995) states that in the Teams Games Tournament model, students are placed in several study groups where each group composed of 4-6 learners. Each group consists of members who are heterogeneous, that is, they have different levels of ability, gender, ethnicity, or race. The stages in this learning model are: 1) The teacher divides the students into several small groups, where each group composed of 4-6 learners; 2) The teacher explains the subject matter with power point; 3) The teacher gives group worksheets and asks students to work on questions, discuss, and explore until each group member understands the subject matter clearly; 4) The teacher makes inter-group tournament games with a group intelligent model; 5) The teacher provides reflection and material reinforcement to students.

Pangestuti et al (2015) revealed that there are several advantages in implementing the Teams Games Tournament (TGT), that groups have a variety of thoughts that are richer than those of individuals, group members will be motivated by other group members, and members who passive people will be more daring to express their thoughts in small groups. Frianto et al (2016) also stated the advantages of this type of learning model, that each group can produce better decisions. Participation in group discussions can also improve each student's understanding (Sa'adah, 2017).

Several studies on the Teams Games Tournament (TGT) cooperative learning model have been carried out previously, including research from Putri & Mawardi (2017), Sa'adah (2017), Widodo (2018), Latifah (2018), Samrin et al (2021). From these several studies, different results were found regarding the implementation of the TGT learning model, so further research is needed to strengthen previous studies and eliminate gaps in previous studies. Some of these studies also have some limitations which include: 1) aspects of learning activities have not measured visual activity, oral activity, listening activity, and writing activity; 2) have not applied the HOTS (High Order Thinking Skills) question model to measure student learning outcomes. So that in this study, novelty were made based on previous research suggestions, namely: 1) measuring student learning activities in the implementation of the TGT learning model in aspect of visual activity, oral activity, listening activity, and writing activity; 2) apply the HOTS question model to measure student learning outcomes that have been validated by expert judgment.

This research purpose to improve the quality of learning in certain aspects of learning activity and learning outcome through the implementation of the Teams Games Tournament (TGT) learning model. The design of Classroom Action Research (CAR) was used in this study. The research is organized into two cycles, where each cycle includes four important phases in CAR including: planning, action, observation, and reflection/evaluation. This research has an important contribution to test the collaborative learning models, especially the Teams Games Tournament (TGT) model. The results of this study can provide recommendations to teachers to use this model to improve the quality of learning in aspects of learning activities and student learning outcomes.

## 2. METHODS

Classroom Action Research (CAR) model is used in this study. The research subjects were 32 students of SMK Negeri 1 Wonosari's class X accounting in 2019/2020. The object of this research is learning activities and student learning outcomes by use the Teams Games Tournament (TGT) learning model. The instruments that used in this research are observation sheets, pre-test and post-test questions. The observation sheets is used to assess student learning activities, while the test instrument is used to measure student learning outcomes. The validity of the instrument was carried out by three expert judgments, while the observers in this study were five accounting teachers.

This study uses descriptive quantitative data analysis techniques. The results of data acquisition will be analyzed in each cycle to determine there is any improvement in student activity and learning outcomes. Each cycle in the research consists of four important stages in classroom action research, viz:

planning, implementing actions, observing, and reflecting/evaluating according to the CAR model proposed by Suharsimi Arikunto et al (2016) as follows.

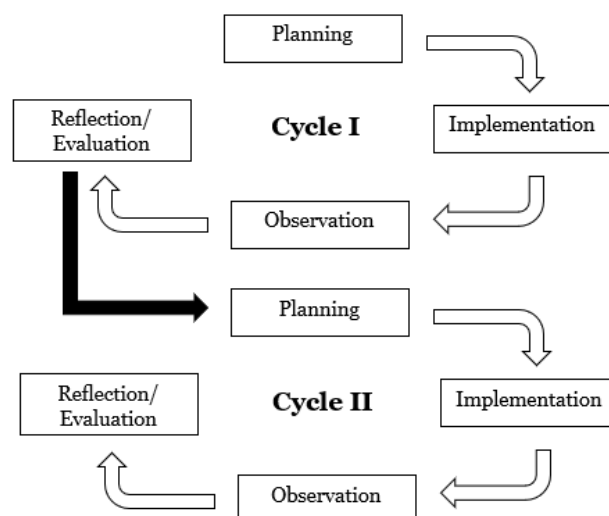


Fig. 1. Classroom Action Research Model

The research steps have been described in the image above. In the first cycle, the researcher first planned the lesson and prepared the research instrument. Furthermore, the implementation of the TGT learning model begins with giving pretest questions. Observations were made to see student learning activities using the observation guidelines that had been made. In the observation stage, the teacher evaluates the learning activities during the learning process. At the end of the lesson, the teacher gives posttest questions to measure student learning outcomes. After the learning process is complete, the teacher reflects and evaluates the entire learning process. The results of the evaluation were used to improve the learning process in the second cycle. If the learning objectives have been achieved in the second cycle, the research has been completed.

### 3. FINDINGS AND DISCUSSION

This study uses the classroom action research model described by Arikunto et al (Arikunto et al., 2016). This study consisted of two cycles, where each cycle consisted of planning, implementing, observing, and evaluation stages. The following is described in detail at each stage.

#### *Planning Stage*

At this stage, the researcher prepares all learning and research needs which include: making pre-test and post-test questions, observation guidelines, modules, and lesson plans (RPP). The instrument must be validated by expert judgment before use. This validity is based on Permendikbud No. 23 of 2016 concerning educational assessment standards in article 14 paragraph 2 which says that assessment instruments must meet the requirements of substance, construction, and language. The valid criteria are based on the criteria according to Ratumanan & Laurens (2003). The following are the results of the content validity of the research instrument.

**Table 1.** Content Validity Test Results

Validator	Observation Guide	Test Instrument	Module	RPP
Validator 1	3.51	3.67	3.30	3.61
Validator 2	3.68	3.64	3.42	3.64
Validator 3	3.41	3.79	3.30	3.68
<b>Average Score</b>	<b>3.53</b>	<b>3.70</b>	<b>3.34</b>	<b>3.64</b>
<b>Category</b>	<b>Very Valid</b>	<b>Very Valid</b>	<b>Valid</b>	<b>Very Valid</b>

Furthermore, the test instrument must be tested for quality in order to meet the criteria for a good research instrument. The test used is a description of 5 questions. This question uses the HOTS (High Order Thinking Skills) question type. The following are the results of the quality test of the questions consisting of a test of the discriminatory power index of the questions and the level of difficulty of the questions.

**Table 2.** Test Instrument Quality

Numb of Questions	Distinguishing Index	Category	Question Difficulty Level	Category
1	0.267	Pretty Good	0.782	Easy
2	0.489	Good	0.697	Medium
3	0.344	Pretty Good	0.593	Medium
4	0.269	Pretty Good	0.645	Medium
5	0.478	Good	0.667	Medium

Based on the table above, it can be concluded that the test instrument used in this study had 3 questions in a fairly good category and 2 questions in a good category. Meanwhile, based on the level of difficulty, the questions used have 1 question in the easy category and 4 questions in the medium category. The criteria for the quality test of this question are based on the criteria proposed by Arikunto (2016).

### Student Learning Activity

Student learning activities are viewed from seven indicators according to Sudjana (2017) and Usman (2013) which include visual activity, oral activity, and physical activity. The results of the research in this paper reveal that seven indicators in student learning activities have increased after the teacher uses the Teams Games Tournament (TGT) model. These improvements are presented in the table below.

**Table 3.** The Score of Accounting Learning Activities

No	Indicators of Accounting Learning Activities	Cycle I result	Cycle II result	Improvement
1.	Pay attention to the teacher's explanation	78.13%	89.58%	11.45%
2.	Actively ask questions in the aspect of the subject matter.	51.04%	88.54%	37.50%
3.	Answer the teacher's or friend's about the subject matter during the learning process.	54.17%	89.58%	35.41%
4.	Actively discuss in study groups.	81.25%	94.79%	13.54%
5.	Take notes on the explanation of the material delivered by the teacher.	60.42%	89.58%	29.16%
6.	Doing the exercises	86.46%	89.58%	3.12%
7.	Answering questions during the games tournament.	87.50%	88.54%	1.04%

No	Indicators of Accounting Learning Activities	Cycle I result	Cycle II result	Improvement
	Average Score of Accounting Learning Activities	71.28%	90.03%	18.75%

The improvement in learning activity scores can also be observed in the graph below.

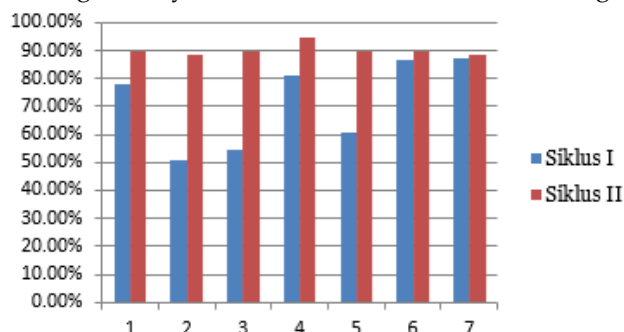


Fig. 2. Average Score of Accounting Learning Activities

From the tables and graphs above, it can be observed that each indicator of learning activity has improve from cycle I to II. The average learning activity of the seven indicators above also increased from the cycle I to II, which was 71.28% to 89.58%, where there was an increase of 18.75%. This increase occurred due to an increase in each indicator of accounting learning activities which include:

**1. Pay attention to the instructor's clarification of the subject matter.**

Student activity in paying attention to the material clarification by the instructor has increased. In the first cycle, the activity gain of 78.13% improved to 89.58% in the second cycle. This indicator has increased because in cycle II the teacher puts emphasis on important materials so that each student can focus more on listening to the teacher's explanation.

**2. Actively ask questions in the aspect of the subject matter.**

Student activities in asking questions to teachers during the learning process and during the discussions experienced an increase in score from the first cycle of 51.04% to 88.54% in the second cycle, resulting in an increase of 37.50%. This indicator has improved because in cycle II the instructor provides motivation and guides the learners to actively inquire if there is material that has not been obvious. Students are also triggered to make questions addressed to other groups regarding the subject matter. Therefore, this indicator has increased significantly.

**3. Answer the teacher's or friend's questions about the subject matter during the learning process.**

Learning activities in the aspect of answering teacher's or friend's questions about the subject matter during the learning process experienced an improve in score from the first cycle of 54.17% to 89.58% in the second cycle, resulting in an increase of 35.41%. The increasing of students who ask questions is directly proportional to the increase in the number of students who answer questions.

**4. Actively discuss in study groups**

Learning activities in conducting discussions during group study increased the score from the cycle I of 81.25% to 94.79% in the cycle II, resulting in an improve of 13.54%. This indicator has increased because in cycle II the teacher guides students to always discuss with their groups. Students are also triggered to work on group questions so that students are more active in discussing to do group assignments. Therefore, discussion activities can run well until the discussion session is over.

**5. Take notes on the explanation of the material.**

Learning activities in noting the explanation of the material provided by the instructor in the learning process increased the score from the first cycle of 60.42% to 89.58% in the second cycle, resulting in an improve of 29.16%. This indicator has increased because in cycle II the instructor emphasizes learners to take notes on material that is considered important. Therefore, this indicator has increased.

### 6. *Doing the exercises given by the teacher.*

Learning activities in the aspect of doing exercises given by the teacher in the pretest and posttest question experienced an increase in score from the first cycle of 86.46% to 89.58% in the second cycle, resulting in an improve of 3.12%. This indicator has increased because in cycle II students try to do the questions correctly and in the time provided. Therefore, this indicator has increased.

### 7. *Answering questions during the games tournament.*

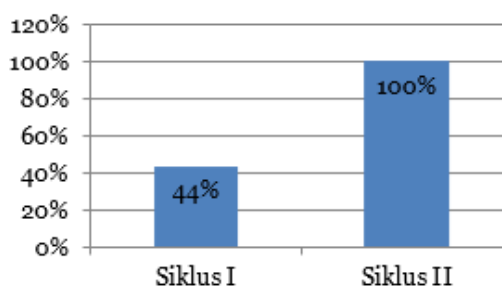
Learning activities in answering questions during the games tournament experienced an increase in scores from the first cycle of 87.50% to 88.54% in the second cycle, resulting in an increase of 1.04%. This indicator has increased because in cycle II students try to do the questions correctly and in the time provided. Therefore, this indicator has increased.

Improvements in accounting learning activities have also been achieved individually. The number of learners achieving a score of 75% or higher increased from cycle 1 to cycle 2 as follows:

**Table 4.** Individual Learning Activities

Category	Cycle I		Cycle II		Improvement (I-II)
	Frequency	%	Frequency	%	
S $\geq$ 75%	14	44	32	100	56%

From the table above, it is known that the number of students who achieved scores above 75% increased from 14 students (44%) to 32 students (100%). This means that the implementation of the TGT learning model allows all students to actively participate in the learning process. This increase can be observed from the following graph.



**Fig. 3.** Individual Learning Activities Score

This improving learning activities are in line with what was stated by Dimiyati & Mudjiono (2018), namely that one way that can be done to increase student activities is to use multiple methods and multimedia. What is meant by the use of multimethods in this study is that implementing the Teams Games Tournament (TGT) model that can increase the learning activities of class X Accounting at SMK Negeri 1 Wonosari for the 2019/2020 academic year.

The results of this research are in line with the research conducted by Widodo (2018) and Silky (2017) which stated that the implementation of the TGT type of cooperative learning model was proven to increase student learning activities. Thus, the results of this study can strengthen the results of previous studies in the aspect of student learning activities. So it can be concluded that the implementation of the TGT type cooperative learning model can improve student learning activities.

### Student Learning Outcomes

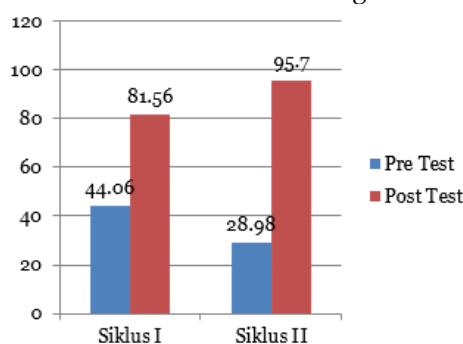
This study focus on accounting learning outcomes in the cognitive domain. This is assessed from student learning outcomes in working on pretest and posttest questions in each research cycle. This paper reveals that accounting learning outcomes have increased since the implementation of the Teams

Games Tournament learning model. This improvement is seen from the average score of pretest and posttest in each cycle as follows.

**Table 5.** Average Score of Accounting Study

Cycle	Class Average		Improving
	Pretest	Posttest	
I	44.06	81.56	37.5
II	28.98	95.7	66.72

The graph below also shows an increase in student learning outcomes.



**Fig. 4.** Average Score of Accounting Study

From the table and graph above, we can understand that the average learning outcomes in accounting have improved from cycle I to II. This increase occurred after the practice of the Teams Games Tournament learning model. The average of learning outcomes increased from 44.06 to 81.56 in the first cycle. While in the second cycle, learning outcomes raised from 28.98 to 95.7.

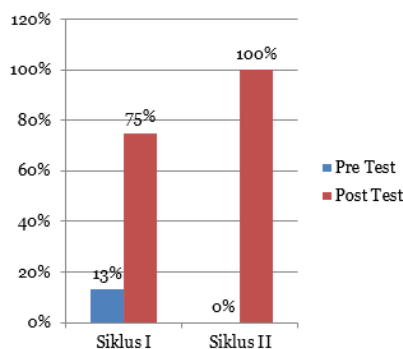
The completeness of learning outcomes also increased through the number of students who achieved the following minimum scores.

**Table 6.** Completeness of Individual Learning Outcomes

Cycle	Pretest		Posttest		Improving
	S ≥ 75	%	S ≥ 75	%	
I	4	13	24	75	62%
II	0	0	32	100	100%

S = Score

The improving in completeness of accounting learning outcomes can also be seen in the following graph.



**Fig. 5.** Completeness of Learning Outcomes

From the table and figure above, we can see that after implementing this learning model, the completeness of the accounting learning results has improved. The completeness of accounting learning result in the first cycle of the pre-test was 13% increasing to 75% in the post-test or an increase of 62%. In cycle II, the completeness of accounting learning outcomes in the 0% pre-test increased to 100% in the post-test or increased by 100%. If the completeness of accounting learning outcomes in cycle I and cycle II is compared, the improve in completeness learning outcomes in accounting in cycle II is greater than the increase in cycle I. In addition, completeness learning outcomes in accounting in cycle II have also reached the predetermined success indicators. This is because 100% or all students in one class have reached the minimum score determined by the school. The data from the research indicate that the implementation of the Teams Games Tournament model can improve accounting learning outcomes.

The results of this study are in line with the results of research conducted by Putri & Mawardi (2017), Latifah (2018), and Samrin et al (2021) which state that the implementation of the TGT type cooperative learning model can improve student learning outcomes. Thus, the results of this study can support the results of previous studies in the aspect of student learning outcomes. So it can be concluded that the implementation of the TGT type cooperative learning model can improve student learning outcomes.

#### 4. CONCLUSION

Based on the results of research and discussion, it can be concluded that the implementation of the Teams Games Tournament (TGT) can improve the accounting learning activities and learning outcomes of class X Accounting students at SMK Negeri 1 Wonosari. The average score of the seven indicators of accounting learning activity increased from the first cycle of 71.28% to 90.03% in the second cycle. And then, the average score of learning outcomes in the pre-test cycle I was 44.06, increasing to 81.56 in the post-test or an increase of 37.50. In the second cycle, the average learning outcomes in the pre-test were 28.98 and increased to 95.70 in the post-test or an increase of 66.72. Completeness in learning activities and learning outcomes also increased in every aspect according to the discussion described. This study provides implications and recommendations for teachers to use the Teams Games Tournament (TGT) cooperative learning model, because this model can improve the quality of learning in the classroom, especially in aspects of student learning activities and student learning outcomes. This study has limitations that the learning activities measured are still in the visual, oral, listening, and written aspects. While learning activities in mental and emotional aspects have not been studied. Researchers suggest that in future research can measure aspects of learning activities in the mental and emotional domains such as interest and motivation in learning.

#### REFERENCES

- Abidin, Z. (2016). Penerapan Pemilihan Media Pembelajaran [Application of Learning Media Selection]. *Edcomtech*, 1(1), 9–20.
- Arikunto, S. (2016). *Manajemen Penelitian*. Jakarta: PT. Rineka Cipta.
- Arikunto, S., Suhardjono, & Supardi. (2016). *Penelitian Tindakan Kelas [Classroom action research]*. Jakarta: PT Bumi Aksara.
- Destiana, D., Suchyadi, Y., & Anjaswuri, F. (2020). Pengembangan Instrumen Penilaian Untuk Meningkatkan Kualitas Pembelajaran Produktif di Sekolah Dasar [Development of Assessment Instruments to Improve the Quality of Productive Learning in Elementary Schools]. *Jurnal Pendidikan Dan Pengajaran Guru Sekolah Dasar (JPPGuseda)*, 3(2), 119–123. Retrieved from <https://journal.unpak.ac.id/index.php/JPPGuseda/article/view/2720>
- Dimiyati, & Mudjiono. (2018). *Belajar dan Pembelajaran [Study and Learning]*. Jakarta: Rineka Cipta.
- Fitrah, M. (2017). Peran Kepala Sekolah dalam Meningkatkan Mutu Pendidikan [The Principal's Role in Improving the Quality of Education]. *Jurnal Penjaminan Mutu*, 3(1), 31–42.

- <https://doi.org/10.25078/jpm.v3i1.90>
- Frianto, Soetjipto, B. E., & Amirudin, A. (2016). The Implementation of Cooperative Learning Model Team Game Tournament and Fan N Pick to Enhance Motivation and Social Studies Learning Outcomes. *IOSR Journal of Humanities and Social Science*, 21(5), 74–81. <https://doi.org/10.9790/0837-2105077481>
- Groccia, J. E. (2018). What Is Student Engagement? *New Directions for Teaching and Learning*, 2018(154), 11–20. <https://doi.org/10.1002/tl.20287>
- Latifah, L. (2018). *The Implementation of TGT (Teams-Games-Tournament) Technique in Improving Writing Skills*. IAIN Salatiga.
- Nurrita, T. (2018). Pengembangan Media Pembelajaran Untuk Meningkatkan Hasil Belajar Siswa. *Misykat*, 03(01), 171–187. <https://doi.org/10.1088/1742-6596/1321/2/022099>
- Pangestuti, A. A., Mistianah, Corebima, A. ., & Zubaidah, S. (2015). Using Reading-Concept Map-Teams Games Tournament (Remap-TGT) to Improve Reading Interest of Tenth Grade Student of Laboratory Senior High School State University of Malang. *American Journal of Educational Research*, 3(2), 250–254. <https://doi.org/10.12691/education-3-2-19>
- Park, Y. H., Paik, T. Y., & Koo, J. H. (2019). Effect of student activity participation on accounting education. *Journal of Open Innovation: Technology, Market, and Complexity*, 5(3), 1–11. <https://doi.org/10.3390/JOITMC5030040>
- Putri, D. S., & Mawardi, M. (2017). The Application of Teams-Games-Tournament (Tgt) To Increase Students' Activeness and Learning Outcomes. *Jurnal Pendidikan Dan Pengajaran*, 50(2), 60–68. Retrieved from <https://ejournal.undiksha.ac.id/index.php/JPP/article/view/11652>
- Rahma Wati, S., Kusumawardani, R., & Majid, A. (2018). Perbedaan Hasil Belajar Siswa SMK antara Model Pembelajaran Kooperatif Tipe Group Investigation dengan Model Pembelajaran Problem Based Learning pada Pokok Bahasan Larutan Elektrolit dan Nonelektrolit [Differences in Learning Outcomes of Vocational High S. *Bioalen: Chemical Studies Journal*, 1(1), 16–20. <https://doi.org/10.30872/bcsj.v1i1.275>
- Ratumanan, G. T., & Laurens, T. (2003). *Evaluasi hasil yang relevan dengan memecahkan problematika belajar dan mengajar*. Bandung: Alfabeta.
- Sa'adah, S. (2017). Implementation of Cooperative Learning Model with Teams Games Tournament (TGT) Method to Improve Interests and Learning Outcomes. *Classroom Action Research Journal*, 1(2), 65–72. <https://doi.org/10.17977/um013v1i22017p065>
- Samrin, Rijal, M., & Syamsuddin. (2021). Use of Cooperative Learning Model With Team Games Tournament ( TGT ) to Increase Students ' Learning Achievement in Islamic Education at SMAN 6 Wangi-Wangi of Wakatobi. *Edukasi Islami: Jurnal Pendidikan Islam*, 10(2), 677–692. <https://doi.org/10.30868/ei.v10i02.1551>
- Sanjaya, W. (2016). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan [Educational Process Standard Oriented Learning Strategy]*. Jakarta: Kencana Prenadamedia Group.
- Sardiman. (2014). *Interaksi dan Motivasi Belajar Mengajar [Teaching and Learning Interaction and Motivation]*. Jakarta: Jakarta: PT Raja Grafindo Persada.
- Sianipar, D., Rambitan, S., Sairwona, W., & Zega, Y. K. (2020). Pelatihan Penggunaan Metode Mengajar Remaja Di Masa Pandemi Covid-19 Di HKBP Resort Jatisampurna Bekasi [Training on the Use of Teenage Teaching Methods During the Covid-19 Pandemic At HKBP Resort Jatisampurna Bekasi]. *JURNAL ComunitÃ Servizio : Jurnal Terkait Kegiatan Pengabdian Kepada Masyarakat, Terkhusus Bidang Teknologi, Kewirausahaan Dan Sosial Kemasyarakatan*, 2(2), 406–428. <https://doi.org/10.33541/cs.v2i2.1963>
- Slavin, R. E. (1995). *Cooperative Learning : Theory, Research, and Practice*. Boston: Boston: Allyn and Bacon.
- Sudjana, N. (2017). *Penilaian Hasil Proses Belajar Mengajar*. Bandung: Bandung: PT Remaja Rosdakarya.
- Suswanto, A. (2020). Kemampuan Kemampuan Mengelola Program Belajar Mengajar [Ability Ability to Manage Teaching and Learning Programs]. *Murabbi: Jurnal Ilmiah Dalam Bidang Pendidikan*, 03(01), 69–88.

- Usman, M. U. (2013). *Menjadi Guru Profesional [Become a Professional Teacher]*. Bandung: PT Remaja Rosdakarya.
- Watson, A., Timperio, A., Brown, H., Best, K., & Hesketh, K. D. (2017). Effect of classroom-based physical activity interventions on academic and physical activity outcomes: A systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 14(1), 1–24. <https://doi.org/10.1186/s12966-017-0569-9>
- Widodo, S. (2018). Implementation of TGT Learning Model To Improve Learning Activities and Study Results. *JCER (Journal of Chemistry Education Research)*, 2(1), 37. <https://doi.org/10.26740/jcer.v2n1.p37-44>

