Seminar Nasional PPG UPGRIS 2023

Improving E Phase Students Learning Outcomes in English Class Using Team Game Tournaments

Ainin Sofiya Septiana^{1,*}, Windy Ekowati², Siti Lestari³

^{1.3}Universitas PGRI Semarang, Jl. Sidodadi Timur No.24, 50232 ²SMA Negeri 5 Semarang, Jl. Pemuda No.143, 50132

*E-mail: <u>aininsofiyaseptiana@gmail.com</u>

ABSTRAK

Karena hanya sedikit sekolah dasar di Indonesia yang menawarkan pembelajaran bahasa Inggris, banyak siswa menganggap kelas bahasa Inggris di sekolah menengah pertama memberatkan. Ini adalah hasil dari banyaknya kosakata yang harus mereka pelajari dengan cepat. Kenyataannya, bahasa Inggris merupakan bahasa yang harus diajarkan kepada siswa Indonesia sejak dini, karena strukturnya sangat berbeda dengan mayoritas bahasa Indonesia sehingga mempelajarinya memerlukan usaha dan dorongan yang lebih. Hal ini tentunya berdampak pada proses pembelajaran bahasa Inggris mereka pada fase E. Siswa yang berada pada fase E kurikulum merdeka saat ini masih dalam proses transisi dari SMP dengan kurikulum 2013 ke SMA dengan kurikulum merdeka. Penelitian tindakan kelas ini dilakukan dengan mengimplementasikan Team Game Tournaments (TGT) pada pelajaran Bahasa Inggris untuk meningkatkan hasil belajar siswa fase E. Penelitian ini dilakukan karena rendahnya hasil belajar siswa yang ditemukan pada pra-siklus dengan materi extended text. Setelah melakukan dua siklus dengan masing-masing siklus terdiri dari empat fase, ditemukan peningkatan rata-rata nilai dari 51,67% pada pra-siklus, menjadi 66,11% pada siklus 1, hingga peningkatan menjadi 84,31% pada siklus 2. Dengan dua siklus, penelitian ini menunjukkan bahwa TGT telah berhasil meningkatkan hasil belajar siswa. Oleh karena itu, siklus lain tidak diperlukan. Jadi, dapat disimpulkan bahwa pelaksanaan Team Game Tournaments pada siswa fase E berhasil meningkatkan hasil belajar siswa.

Kata kunci: Team Game Tournaments, Hasil Belajar Siswa, Siswa Fase E

ABSTRACT

Few elementary schools in Indonesia offer English as a second language, therefore many students find junior high school English lessons to be difficult. This is a result of their need to quickly master a large vocabulary. Since English's structure is so different from that of the majority of Indonesian languages, it is actually a language that must be taught to Indonesian kids from a young age. This is because learning English requires more effort and encouragement. It goes without arguing that this has an impact on their E Phase English learning process. Transitioning from junior high school with the 2013 curriculum to senior high school with the merdeka curriculum is still happening for students who are in Phase E of the current merdeka curriculum. Team Game Tournaments (TGT) were used on English courses as part of this classroom action research study to improve students' learning outcomes in phase E. This study was carried out in response to the low student learning outcomes observed in the pre-cycle with extended text material. The average number increased from 51.67% in the pre-cycle to 66.11% in cycle 1, and then increased by 84.31% in cycle 2 after two cycles, each of which had four stages. This study demonstrates that TGT has been successful in improving student learning outcomes after two cycles. Thus, it is not necessary to perform another cycle. We can therefore draw the conclusion that the implementation of Team Game Tournaments for E phase students was successful in improving student learning outcomes.

Keywords: Team Game Tournaments, Learning Outcomes, E Phase Students

1. INTRODUCTION

English is one of the most widely spoken languages in the world and serves as a lingua franca in many international contexts. Learning English enables Indonesians to communicate effectively with people from diverse linguistic backgrounds, both within and outside of Indonesia (Parupalli, 2019).

In terms of globalization and crosscultural communication, English is regarded as being extremely important. In order to ensure that Indonesian students are able to participate in international conversations, the government and educational institutions are aiming to improve their skills in English.

Formal education in Indonesia spans several levels, from elementary school through college. Although English is typically taught in high schools, it's possible that this method hasn't made it to elementary schools.

The national curriculum for education in Indonesia was created by the national government. However, not all elementary schools include English education in their main curriculum. The way that a curriculum is implemented can differ between schools, states, and locales.

Since few Indonesian elementary schools offer English language learning, many students find junior high school English classes burdensome. This is a result of the extensive vocabulary that they must learn quickly (Siswandi, 2018). In reality. English is a language that must be taught to Indonesian students from a young age (Artila Dewi et al., 2023), since its structure is so distinctive to that of the majority of Indonesian languages that learning it takes more effort and encouragement (Irnanda & Sarair, 2022). It goes without saving that this affects their English learning process for phase E. Students who are in Phase E of the current merdeka curriculum are still going through the process of transitioning from junior high school with the 2013 curriculum to senior high school with the merdeka curriculum (Rawi et al., 2022).

The Merdeka Curriculum offers a variety of intracurricular learning

opportunities where the content will be better organized so that students have adequate time to investigate ideas and develop competency (Kemdikbud, 2022). The main characteristics of the merdeka curriculum are: (1) project-based learning to build character and soft skills in accordance with the Pancasila student profile: (2) focus on essential content to allow for enough opportunity for in-depth learning of fundamental skills like literacy and numeracy; and (3) flexibility for teachers to implement differentiated learning in accordance with students' abilities and make adjustments to the context and local content (Nugroho & Narawaty, 2022).

Due to the merdeka curriculum's significant differences from the 2013 curriculum, the transition from the 2013 curriculum to the merdeka curriculum took a considerable amount of time. To achieve the standards of the learning process, schools and teachers had to construct an advanced educational program (Rawi et al., 2022). Based on such characteristics, it is clear that the merdeka curriculum demands students to think more critically and actively develop their skills and interests.

Students in Phase E are charged with merdeka curriculum such needs in though. learning. Even besides experiencing a transition period from the 2013 curriculum, these students also experienced the impact of the pandemic, which caused them with learning difficulties (Najiah et al., 2023), lack of motivation to study (Birmingham et al., 2023), bored while studying (Mohammad & Maulidiyah, 2023), and much more.

Considering that learning can be personalized according to the requirements and interests of students, the teacher, in his or her role as a student facilitator, has the freedom to select a variety of teaching materials (Kemdikbud, 2022). One of the keys to the effective management of teaching and learning activities is the teacher's ability to select their preferred techniques of instruction (Sommefeldt & Briggs, 2002). Teachers frequently utilize cooperative learning techniques, including group investigations, think-pair-share, and team game competitions to enhance their students' critical thinking abilities. activeness. and learning enthusiasm, outcomes (Daniel, 2023; Sukra et al., 2023; Umar, 2021).

Learning outcomes are precise indications of what students will be able to perform after completing a learning experience (whether it's a project, course, or program). They are always written in a simple, insightful, and doable manner that is student-centered and measurable (Davis, 1993).

Learning outcomes must go through a process of maximal collaboration across all elements in the teaching and learning process in order to be felt immediately. Intellectual, emotional, and spiritual (IQ, EQ, and SQ) questions are used to evaluate learning outcomes. Because a learner's talents may be seen from the three factors that influence him or her, the three types of targets above cannot be isolated from one another. To build the three models of intelligence, a teacher and student are Starting with needed. intellectual intelligence, the outcomes of the teaching and learning process, the first and most important item is the students' intellectual abilities, as well as educators' ability to effectively combine methods and strategies in teaching (Djamaluddin & Wardana, 2019).

Learning outcomes assist teachers in laying out expectations for students; planning effective teaching methods, materials, and assessments: learning from curriculum evaluations to improve student learning; and determining how the outcomes of one course relate to more general program outcomes. While learning outcomes helps students with anticipating what they will learn from an educational experience; tracking their development and knowing where they stand; and anticipating how they will be evaluated (Bloom et al., 1956).

This suggests that in order to improve learning outcomes, teachers should develop efficient strategies to increase students' intellectual intelligence. That is why this study will conduct team game tournaments in the English learning process for E phase students to see how this strategy can be well implemented.

Team-Game-Tournaments (TGT) is a teaching strategy developed by Edwards and DeVries (1972) that encourages students to learn by engaging them in friendly competition (DeVries & Edwards, 1974; Hollifield, 1973).

This strategy encourages the establishment of student learning teams made up of four to five students who are diverse in terms of ability, gender, and race. There will be representations of students at the same academic level in each competing team (Slavin et al., 2003). As a result, in TGT, teams compete against other teams that are on an equal intellectual level as them. In cooperative TGT learning, the emphasis is on the level of cooperation among team members and how that level of cooperation affects scores for the progression of the team's value, while also improving individual value.

The three primary components of TGT are: (1) teams, where students are placed into teams at random and stay in the same team for the duration of the cooperative learning process; (2) games, in which students participate in activities created by the teacher; (3) tournaments, in which students represent their teams and compete against individuals from other teams. The team score is influenced by each player's performance (DeVries & Snyder, 2015; Veloo et al., 2016).

It was discovered that using this strategy improved peer tutoring, classroom interaction, and learning outcomes (Hollifield, 1973; Umar, 2021; Veloo et al., 2016). This study further explores how team game tournaments can improve learning outcomes for E phase students.

The primary focus of this study will be on implementing Team Game Tournament, one of the cooperative learning activities, in the English class for students in phase E. Because it has been discovered that students in phase E have low academic results and have no interest in learning English (Silalahi et al., 2022) due to their lack of motivation, lack of confidence, lack of courage, fear of making mistakes, lack of English vocabulary, and lack of a supportive environment to practice English conversations (Harahap, 2023; Prayudha.S & Pradana, 2023; Silalahi et al., 2022). According to this study, it is hoped that using team games tournaments will improve E phase students' learning outcomes in the English learning process.

2. RESEARCH DESIGN

This study was conducted at SMA Negeri 5 Semarang. The E phase students were chosen by the researcher so that the required information could be collected and used to solve the research topic.

From the time the study began in July 2023 until its finish. Students in the E phase of their first-semester English class selected the study's topics. Table 1 displays a thorough chronology of the study's events.

Activity		Month										
		July			August				September			
		1	2	3	4	1	2	3	4	5	1	2
Cycle 1	Planning											
	Action											
	Observation											
	Reflection											
Cycle 2	Planning											
	Action											
	Observation											
	Reflection											
Construct research report												

Table 1. The Timeline of Research

This study is used Classroom Action Research. Classroom Action Research (CAR) is an approach with the objective of guiding practice in a specific context. By using CAR, teachers can figure out what works best in their particular classroom environment and make educated decisions regarding their lesson plans (Mettetal, 2003). Therefore, this study used mixed methods to examine data, integrating qualitative and quantitative data to merely "mining" the databases (Creswell & Creswell, 2018).

To determine whether student learning outcomes have improved, the quantitative data was examined. Quantitative data is studied statistically since it represents numbers from which data points can be derived. This data could be test scores, grades (Mettetal, 2003). The test outcomes were used as the data in this study by the researcher.

The researcher analyzes whether or not students' learning outcomes may have improved based on their cycle 1 and cycle 2 results. The researcher used the formula below to find students' average learning outcomes:

$$M = \frac{\sum x}{N_{\pi}} x \ 100\%$$

M = Average Score $\sum x = \text{Total Students' Score}$ N = Total Students

Before employing a team game tournament, the observation is carried out throughout the teaching and learning activities in the class to gather the students' learning outcomes. The data gathered from this observation is utilized as a foundation to decide how to plan for the cycle that follows.

In this research, the researcher used Miles and Huberman's data analysis to analyze the data observation that has been collected from students' activeness during the learning process.

The game tournament team is considered successful in improving student learning outcomes if the student's score is above KKM (75%) and the learning outcomes from cycle 2 are better than the learning outcomes from cycle 1.

In order to collect data for processing and analysis, testing is carried out by the researcher when extended text materials are given to E phase students for English language learning. The test may be multiple choice, or an essay, depending on the situation or the learning game being used.

3. FINDINGS AND DISCUSSION

This classroom action research was conducted in semester 1 in class X-12 at SMA Negeri 5 Semarang. Based on English learning before using the team game tournament, the learning outcomes students can be seen in table 2.

Table 2. Students Learning Outcomes Pre-cycle

CRITERIA	F	%
PASSED	2	5,56%
UNPASSED	34	94,44%
TOTAL	36	100,00%

As shown in table 2, students' learning outcomes are regarded low because the percentage of students who passed the KKM is less than 75%. For this reason, researchers hope that the use of team game tournaments in classroom action research can improve student learning outcomes in English lessons.

The first cycle learning process was implemented by the researchers as a follow-up to the learning process and the grades obtained by students in improving student learning outcomes under extremely low in the beginning conditions. Planning, action, observation, and reflection were the four stages of activity that Cycle I of this research went through.

The researcher creates a lesson plan implementing a team game tournament in this step. The subject is an extended text that includes recount and descriptive text.

The learning process included introduction, main activity, and closing.

After that, observations were conducted of the students' active learning during the first cycle of learning activities. In cycle 1, it was discovered that students participated in learning more actively when team game tournaments were used in place of classical learning.

Researchers must reflect on the learning activities that have been completed after cycle 1's learning activities are finished. Following the completion of the learning activities, this reflection is carried out by reviewing the data from the results. student test The learning outcomes obtained by students in cycle 1 learning activities are shown via data on student test scores. The table 3 below provides information on student written test results in improving learning outcomes in cycle 1 learning activities.

Table 3. Students Learning OutcomesCycle 1

CRITERIA	F	%
PASSED	11	30,56%
UNPASSED	25	69,44%
TOTAL	36	100,00%

With the findings in cycle 1, we can see differences in phase E student learning outcomes in table 4.

outcomes in tuble 4:						
Table 4. Student Learning Outcomes fr	om Pre-cycle to Cycle 1					
DRF_CVCI F	CYCLE 1					

PRE-C	YCLE	CYCI	LE 1
F	%	F	%
2	5,56%	11	30,56%
34	94,44%	25	69,44%
36	100,00%	36	100,00%
	F 2 34	2 5,56% 34 94,44%	F % F 2 5,56% 11 34 94,44% 25

Tables 4 shows that there are now 11 students, up from the original 2 students, whose scores have met the KKM (75%) standard. This demonstrates that cycle 1 has seen a rise in the use of team game tournaments. However, the number of students who meet the KKM is still 30.56%, so the implementation of this team game tournament is insufficient. Therefore, cycle 2 must proceed with the team game tournaments implementation.

Learning activities in cycle 2 are the same as learning activities in cycle 1, through four activity stages, namely planning, action, observation and reflection. With the same activities, this cycle also discusses extended text that includes recount and descriptive text.

Observations were conducted of the students' active learning during the second cycle of learning activities. In cycle 2, it was discovered that students participated in learning more actively than in cycle 1 because they already know the rules and how to play the games.

The learning outcomes obtained by students in cycle 2 learning activities are shown via data on student test scores. The table 5 below provides information on student written test results in improving learning outcomes in cycle 2 learning activities.

Table 5. Students Learning OutcomesCycle 2

CRITERIA	F	%
PASSED	28	77,78%
UNPASSED	8	22,22%
TOTAL	36	100,00%

We can see that there have been significant improvements based on table 5.

There were 28 students out of the 11 that earned the KKM scores in cycle 1. This demonstrates that the team game tournament used in cycle 2 was successful in improving student learning outcomes. Cycle 2 alone demonstrates that the game tournament team has been successful in improving student learning outcomes.

Team-Game-Tournaments (TGT) is a teaching strategy that encourages students to learn by engaging them in friendly competition. It is a type of cooperative learning model, which depends on teamwork in a learning game to accomplish learning objectives. To win this game, a team must correctly respond to questions based on the material they have studied. If they are unable to respond, the group that can respond will have a higher chance of winning due to the points awarded for correctly extra answering the questions.

There was an improvement in learning outcomes, according to data from studies on the implementation of the TGT learning model to E phase student learning outcomes with the extended text topic. English topics were previously mostly taught using the classical techniques, which resulted in students participating less in the learning process. Additionally, as a result, students' English test results fall short of expectations. The team game tournament type cooperative learning model was used to change this.

In this classroom action research which implemented a team game tournament, E phase students' learning outcomes showed improvement after 2 cycles.

With the findings in cycle 1, we can see differences in phase E student learning outcomes from pre-cycle until cycle 2 in table 6.

Table 6. Student Learning Outcomes from Pre-cycle, Cycle 1, Cycle 2

	PRE-CYCLE		CYCI	LE 1	CYCLE 2		
CRITERIA	F	%	F	%	F	%	
PASSED	2	5,56%	11	30,56%	28	77,28%	
UNPASSED	34	94,44%	25	69,44%	8	22,22%	
TOTAL	36	100,00%	36	100,00%	36	100,00%	

Based on a comparison of the average student learning outcomes in table 6, it can be seen that student learning outcomes from pre-cycle to cycle 2 have increased by 33%.

From initially only 2 students who met the KKM score, there were 28 students. The fact that there have been an additional 26 students shows that the game tournament team has been successful in improving student learning outcomes on average from 51.67% to 84.31%. Because the game tournament team is considered successful in improving student learning outcomes by the fact that student's score is above KKM is increasing and the learning outcomes from cycle 2 are better than the learning outcomes from cycle 1. Therefore, another cycle is not required.

Figure 1 below shows how phase E student learning outcomes improved from pre-cycle, cycle 1, to cycle 2.

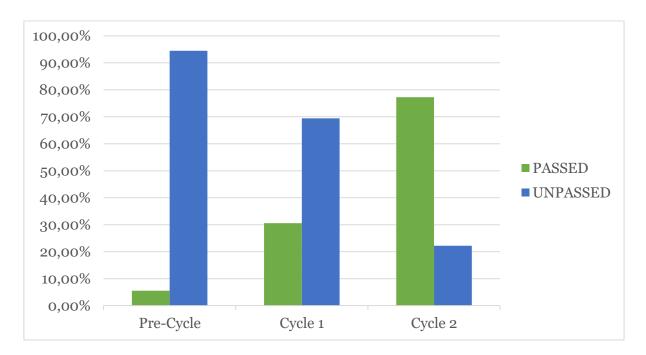


Figure 1. Students' Learning Outcomes Diagram

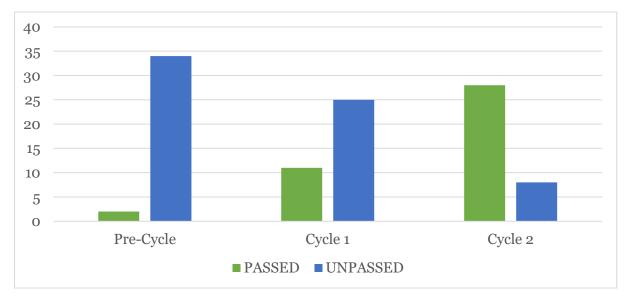


Figure 2. Total Students Who Passed and Unpassed the KKM Score

We can see the development of improved outcomes for student learning in figures 1 and 2 above. Before the implementation of the team game tournaments in cycle 1, the average E phase students' score was only 51.67%. The average increased by 14% to 66.11% once the team game tournaments were put into place. In the meantime, from just 2 to 11 students, the number of students who met the KKM increased by 9 students.

Improvements in student learning outcomes became more obvious in cycle 2. Additionally, there were more students whose learning outcomes reached the KKM level. Cycle 2 had 28 students, up from cycle 1, which had only 11 students. If we compare the situation before the cycle was run, there were just 2 students instead of the current 28 students.

4. CONCLUSION

The conclusions of this research are based on data collected by researchers in the form of student learning outcomes. So it can be concluded that the game implementation of the team tournament for E phase students has succeeded in improving student learning outcomes.

The 14% increase in average student learning outcomes in cycle 1, which was still lacking, was finally continued with the implementation of cycle 2, which increased by 18% from cycle 1. With a percentage increase of 33% over the entire cycle, the average student learning outcome can be said to be good.

BIBLIOGRAPHY

Artila Dewi, N. P., Sintadewi, M. D., & Suryantini, M. D. (2023). Urgency of Teaching English to Young Learners in Kurikulum Merdeka Belajar. *Riwayat: Educational Journal of History and Humanities*, 4(2), 188– 196. https://doi.org/10.24815/jr.v6i1.294

27

Birmingham, W. C., Wadsworth, L. L., Lassetter, J. H., Graff, T. C., Lauren, E., & Hung, M. (2023). COVID-19 lockdown: Impact on college students' lives. *Journal of American* *College Health*, *71*(3), 879–893. https://doi.org/10.1080/07448481.2 021.1909041

- Bloom, B. S., Krathwohl, D. R., & Masia, B. B. (1956). *Taxonomy of educational objectives : the classification of educational goals*. David McKay Company.
- Creswell, J. W., & Creswell, J. D. (2018). Mixed Methods Procedures. In SAGE Publications, Inc.
- Daniel, D. D. (2023). Penerapan Model Cooperative Learning Type Group Investigation untuk Meningkatkan Hasil Belajar Bahasa Inggris di Kelas XI AKL-2 SMK Negeri 1 Waingapu. Voteteknika (Vocational Teknik Elektronika Dan Informatika), 8(1), 22–29. https://doi.org/10.24036/voteteknik a.v3i1.5170
- Davis, B. G. (1993). Tools for Teaching. In *The Journal of Higher Education* (Vol. 66, Issue 2). Jossey-Bass Inc. https://doi.org/10.2307/2943914
- DeVries, D. L., & Edwards, K. J. (1974). Student teams and learning games: Their effects on cross-race and crosssex interaction. *Journal of Educational Psychology*, 66(5), 741– 749. https://doi.org/10.1037/h0037479
- DeVries, D. L., & Snyder, J. P. (2015). Games and teams. 247–269.
- Djamaluddin, A., & Wardana. (2019). Belajar Dan Pembelajaran. CV Kaaffah Learning Center.
- Harahap, A. I. (2023). AN ANALYSIS OF STUDENTS' ERRORS IN USING PERSONAL PRONOUNS IN WRITING DESCRIPTIVE TEXT IN THE TENTH GRADE OF SMA NEGERI 1 TANJUNG PURA. Journal of Classroom Action Research, 2(1), 1–6.
- Hollifield, J. H. (1973). Teams-Game-Tournament. *Science Activities:*

Classroom Projects and Curriculum Ideas, 10(3), 19–45. https://doi.org/10.1080/00368121.19 73.9957662

- Irnanda, S., & Sarair, S. (2022). Learning L3 English Early: A Danger to L1 Indonesian Language Acquisition? *Jurnal Dedikasi Pendidikan*, 6(2), 435–444. https://doi.org/10.30601/dedikasi.v6 i2.3072
- Kemdikbud. (2022). Buku Saku Kurikulum Merdeka. *Kementerian Pendidikan Dan Kebudayaan*, 1–50.
- Mettetal, G. (2003). Essays on Teaching Excellence Improving Teaching through Classroom Action Research. *Action Research*, 14(7), 2002–2003.
- Mohammad, W., & Maulidiyah, N. R. (2023). PENGALAMAN BELAJAR SECARA ONLINE MELALUI APLIKASI MEETING PADA MASA PANDEMI COVID-19: ANALISIS PERSEPSI DAN DAMPAK TERHADAP MOTIVASI DAN. *Triwikrama: Jurnal Multidisiplin Ilmu Sosial*, 01(02), 30–45.
- Najiah, J., Haryati, T., Wibowo, F. I. S., Rohmatullah, N., & Sutiyan, O. S. J. (2023). Kesulitan Belajar: Analisis Dampak Pembelajaran Daring Terhadap Siswa. *Paedagoria: Jurnal Kajian, Penelitian Dan Pengembangan Kependidikan, 14*(1), 34–44.
- Nugroho, T., & Narawaty, D. (2022). Kurikulum 2013, Kurikulum Darurat (2020-2021), Dan Kurikulum Prototipe Atau Kurikulum Merdeka (2022) Mata Pelajaran Bahasa Inggris: Suatu Kajian Bandingan. *Sinastra*, 1(1), 373–382.
- Parupalli, S. R. (2019). The Role of English as a Global Language. *Research Journal Of English (RJOE)*, 4(1), 64– 79.

https://www.researchgate.net/public ation/334282978%0ATHE%0Awww. rjoe.org.in

- Prayudha.S, J., & Pradana, A. (2023). Analysis of Students' Difficulties in English Conversation Practice. Journal Corner of Education, Linguistics, and Literature (JCELL), 2(3), 215–222. https://doi.org/10.54012/jcell.v2i3.11 9
- Rawi, H. W., Salsabila, A., Ainun, N., Harahap, N., Akmalia, R., Lubis, S. P., & Rachman, S. (2022). Peralihan Kurikulum 2013 Menjadi Kurikulum Merdeka Pada Siswa Sma Melalui Inovasi Pendidikan. Jurnal Pendidikan Dan Konseling, 5(2), 5969–5976.
- Silalahi, M., Purba, A., Benarita, B., Matondang, M. K. ., Sipayung, R. W., Silalahi, T. F., Saragih, N., Girsang, S. E., Damanik, I. J., & Sibuea, B. (2022). Analisis Kesulitan Belajar Bahasa Inggris Siswa Sma Negeri 1 Kabupaten Narumonda Tobasa. Community Development Journal: Pengabdian Jurnal Masuarakat. 3(2),728-732. https://doi.org/10.31004/cdj.v3i2.46 86
- Siswandi. (2018). Proses Pembelajaran Bahasa Inggris di SMP Negeri Pekanbaru Provinsi Riau. Jurnal Ilmu Pendidikan Sosial, Sains Dan Humaniora, 4(1), 395–412.
- E., Hurley, E. Slavin. R. A., & Chamberlain, A. (2003). Cooperative Learning and Achievement: Theory and Research. Handbook of Psychology, February 2019. https://doi.org/10.1002/0471264385 .wei0709
- Sommefeldt, D., & Briggs, A. (2002). Managing Effective Learning and Teaching. Sage Publications Ltd.
- Sukra, I. W., Widiyanti, N. L. P. M., & Sholekah, M. Y. (2023). The Comparison Of Students' Critical Thinking Skill By The Implementation Of Think Pair Share And Student Teams Achievement Division Cooperative Learning Model

In Biology Instruction At SMAN 2 Singaraja. *Wahana Matematika Dan Sains: Jurnal Matematika, Sains, Dan Pembelajarannya, 17*(1), 1–11. https://ejournal.undiksha.ac.id/inde x.php/JPM/article/view/61915%0Aht tps://ejournal.undiksha.ac.id/index.p hp/JPM/article/download/61915/26 022

- Umar, M. (2021). Implementasi Model Pembelajaran Team Game Tournament Untuk Meningkatkan Hasil Belajar Bahasa Inggris. *Edutrained: Jurnal Pendidikan Dan Pelatihan*, 5(2), 140–147. https://doi.org/10.47200/intersectio ns.v4i2.496
- Veloo, A., Md-Ali, R., & Chairany, S. (2016). Using cooperative teamsgame-tournament in 11 religious school to improve mathematics understanding and communication. *Malaysian Journal of Learning and Instruction*, 13(2), 97–123. https://doi.org/10.32890/mjli2016.1 3.2.4