

The Effect of Team Games Tournament (TGT) Learning Model Using Genially Snakes and Ladders on Students' Economics Achievement

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ABSTRACT

This research investigates the impact of the Team Games Tournament (TGT) cooperative model—integrated with a Genially-based snakes and ladders game—on students' achievement in economics. Employing a quasi-experimental approach with a nonequivalent control group and purposive sampling, data were gathered through tests. Findings reveal that the TGT model supported by the educational game significantly enhances students' performance in economics at SMAN 2 Lubuk Basung.



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INTRODUCTION

Education plays a crucial role in shaping individuals to be prepared for the dynamics and challenges of life, particularly in facing the future. In Indonesia, formal education is compulsory for twelve years, covering levels from elementary to senior high school. Primary objective of education is to help learners complete tasks with greater efficiency and precision, to develop well-structured knowledge in their minds, and to prepare them for the next, more complex stages of life and experience (Lodge, 2002). The achievement of learning objectives within an educational institution or school can be observed through the level of students' academic performance. Learning achievement reflects the extent of students' skills and knowledge acquired after participating in the learning process (Sudjana, 2017). In addition, learning achievement can also serve as a basis for teachers to evaluate and improve their teaching methods (Slameto, 2010). The learning process guides students in carrying out learning activities. A strong understanding of concepts will help students achieve academic success (Fitri & Oknaryana, 2024).

From the initial review of students' average daily assessments and midterm results at SMA Negeri 2 Lubuk Basung during the 2024/2025 academic year, it was found that 52% of the daily test scores—equivalent to around 209 out of 404 students—did not meet the KKTP standard. Similarly, 58% of the midterm scores, or approximately 236 students, also fell below the required standard. These findings indicate that the majority of students have relatively low academic

achievement. However, this condition can be improved if students are motivated to continuously enhance their learning performance. Essentially, learning achievement is the result of active interaction between the individual, the learning model, and the supporting media used in the learning process.

Internal influences arise from within the learner—covering aspects like physical health, sensory capability, talent, interest, intelligence, motivation, and cognitive skills. In contrast, external influences stem from the learner's surrounding environment, including the family and school settings, which encompass aspects such as facilities and infrastructure, learning media, and instructional methods (Ahmadi & Supriyono, 2011). An appropriate learning method can create a conducive learning environment and enhance student engagement, thereby contributing positively to their learning achievement.

Based on an interview conducted with one of the economics teachers at SMA Negeri 2 Lubuk Basung, it was revealed that the learning process is generally still dominated by the lecture method. The teacher acts as the primary provider of knowledge, while students tend to be passive—listening to explanations and merely taking notes. This one-way learning pattern has an impact on students' ability to achieve optimal academic performance. The lack of active participation and interaction among students often leads to limited understanding of the subject matter, which is an essential component in supporting learning achievement. This condition calls for the implementation of innovative learning strategies that can foster students' activeness, engagement, and learning responsibility. The TGT cooperative framework serves as an effective means to build interactive classroom dynamics, enjoyable, and competitive learning atmosphere by combining group collaboration with educational games that challenge students' thinking and participation. The TGT model not only enhances students' interaction and learning enthusiasm but also provides opportunities for them to share knowledge, develop critical thinking skills, and ultimately improve their learning outcomes. This is particularly significant in economics subjects, which emphasize conceptual understanding and the application of knowledge in real-life contexts. In accordance with this, Khosiin, (2020) found a significant and positive effect of learning motivation and the Cooperative Learning Model of Team-Games-Tournament (TGT) on the academic achievement of Grade X students. Consistent with these findings, Putri & Wati, (2019) also confirmed that the consistent implementation of the TGT model contributes substantially to the improvement of students' academic performance. Moreover, the study conducted by Arizka & Khairuna, (2022) indicated that the TGT learning model supported by question cards not only enhances students' learning outcomes but also exerts a significant influence on the biology learning process. Therefore, the integration of question cards within the TGT framework may serve as an effective pedagogical approach for teachers to optimize both the learning process and students' academic achievement.

Learning achievement serves as one of the key indicators of students' success throughout the educational process. It also represents the optimal outcome achieved by an individual in mastering the knowledge or learning materials that have been previously studied (Azwar, 2006). Academic achievement refers to the degree of knowledge or proficiency attained in a specific educational domain, typically measured through teacher assessments, standardized

examinations, custom tests, or a mix of these evaluative tools Franky & Chamundeswari, (2014). Achieving good academic performance requires considerable effort, as there are various factors that influence a student's level of learning achievement. These factors are generally divided into internal and external factors. Internal factors include both physical and psychological aspects. The physical factors relate to general physical conditions such as hearing, vision, and body structure. Meanwhile, psychological factors involve non-physical aspects such as intelligence, talents, abilities (previous achievements), and personality traits including attitude, interest, motivation, and mental health. External factors, on the other hand, consist of physical and social aspects. Physical factors are related to the learning environment, facilities and equipment, learning materials, and the overall condition of the learning setting. Social factors involve the family environment, school environment, and cultural influences (Azwar, 2022).

A learning model represents a theoretical framework that systematically describes the stages of organizing instructional activities aimed at achieving specific educational objectives. Moreover, it functions as a practical guide for educators in designing, implementing, and planning effective learning experiences (Malawi & Kadarwati, 2017). The Team Games Tournament (TGT) model, developed by David DeVries and Keith Edwards, is an easy-to-apply cooperative learning method that promotes equal and active participation among all students, encourages students to take on peer tutoring roles, and integrates game elements into the learning process (Ervianna et al., 2012). Through systematically designed game activities within this model, students can learn in a more relaxed atmosphere while simultaneously developing a sense of responsibility, collaboration skills, A healthy sense of competition and active student participation are essential to this model's success. It is built on five key components: class presentation, group division, gameplay, tournament, and group rewards (Mahardi et al., 2019). Effective learning also requires appropriate media; this study used a modified *Snakes and Ladders* game. Unlike the traditional version for entertainment, it was redesigned as an educational tool to support classroom learning (Syukurti, 2020). The game further encourages peer interaction and active engagement in learning activities, establishing social relationships, and building self-confidence. In addition, the game encourages students to be more confident and optimistic when expressing their opinions (Fransisca et al., 2020).

Several international studies have also highlighted the strong connection between cooperative learning and improved academic outcomes. Slavin (2014) explained that cooperative learning models such as TGT enhance achievement by promoting peer support and shared accountability. Johnson & Johnson (2009) further noted that cooperative settings encourage positive interdependence and individual responsibility, leading to deeper understanding and retention. In the context of digital education, Hamari et al., (2016) found that gamification fosters intrinsic motivation and sustained engagement through feedback loops, competition, and goal-oriented play. Integrating these perspectives into the present study strengthens the theoretical foundation of using TGT with digital game-based media to promote both cognitive and motivational learning benefits.

Research examining the influence of the Team Games Tournament (TGT) instructional approach on learners' academic performance—such as that by Solihatin & Öztürk, (2014)—

revealed notable gains in student achievement and affirmed the positive impact of cooperative learning facilitated through the TGT strategy. From a theoretical perspective, the integration of the Team Games Tournament (TGT) model with digital games can be explained through Vygotsky's (1978) *social constructivism*, which emphasizes that learning occurs most effectively through social interaction and collaboration. In the TGT structure, students engage in peer discussion, scaffolding, and cooperative problem-solving—core mechanisms of Vygotskian learning. Moreover, the use of Genially-based snakes and ladders as a digital learning medium aligns with *gamification theory* (Deterding et al., 2011; Sailer & Homner, 2020), which asserts that incorporating game elements such as points, challenges, and rewards increases intrinsic motivation, engagement, and persistence. By merging these theoretical perspectives, TGT-supported digital gameplay provides both cognitive and motivational scaffolds that enhance students' understanding and academic achievement in economics.

RESEARCH METHODOLOGY

This study implemented a quantitative approach using a quasi-experimental method with a Nonequivalent Control Group Design. The population consisted of all tenth-grade students at SMAN 2 Lubuk Basung, totaling 404 students. The sampling technique used was purposive sampling, resulting in two classes being selected as the research samples: Class X-7 with 35 students as the control group, and Class X-8 with 35 students as the experimental group. The study was conducted over three learning sessions, each lasting 3×45 minutes. The topics taught included Human Needs, Scarcity, and Opportunity Cost. Data on students' learning achievement were collected using pre-tests and post-tests consisting of 30 objective questions. The test items had undergone validity, reliability, difficulty level, and discriminating power analyses, with a Cronbach's Alpha reliability coefficient of 0.816. In the learning process, the experimental group was taught using the Team Games Tournament (TGT) cooperative learning model combined with a Snakes and Ladders game designed through the Genially Education website, while the control group was taught using conventional teaching methods. The collected data were analyzed using an independent samples t-test to determine the effect of the treatment on students' learning achievement.

RESULT AND DISCUSSION

Results OF The Study

Students' academic performance was evaluated through the comparison of pre-test and post-test results in the experimental group. The concise summary of the descriptive statistics for the learning achievement variable is shown in the table below.

Table 1. Descriptive Statistics of Experimental Group

Type of Test	Mean	Median	Mode	Standard Deviation
Pre-test	50.48	50	53.33	6.32
Post-test	87.52	86.67	96.67	7.73

Table 1 shows a clear rise in students' performance: the mean grew from 50.48 to 87.52, the median from 50.00 to 86.67, and the mode from 53.33 to 96.67, indicating better results after the learning treatment. The standard deviation increased slightly from 6.32 to 7.73, which means that there was a bit more variation in the scores. However, this also suggests that the improvement was fairly consistent among most students. Overall, the calculation showed a 73.37% increase, indicating that students' average learning performance improved by 73.37% after the treatment compared to before.

Students' academic performance was measured using their pre-test and post-test results in the control group. The summary of descriptive statistics for the learning achievement variable is displayed in the table below.

Table 2. Descriptive Statistics of Control Group

Type of Test	Mean	Median	Mode	Standard Deviation
Pre-test	44.10	43.33	46.67	8.37
Post-test	55.24	56.67	56.67	8.49

Table 2 illustrates that, overall, students in the control group experienced an improvement in their learning outcomes. The average score rose from 44.10 on the pre-test to 55.24 on the post-test. Similarly, the median increased from 43.33 to 56.67, and the mode shifted from 46.67 to 56.67. The standard deviation, 8.49, remained nearly unchanged from the pre-test, indicating that the dispersion of students' scores was relatively consistent. Overall, students' average achievement in the control group improved by approximately 25.27%. This finding suggests that conventional learning methods were still able to improve students' performance, although the improvement was not as substantial as that observed in the experimental class.

To determine whether the distribution of residuals followed a normal distribution, the Shapiro–Wilk test was applied. The results of the normality test are presented in the following table.

Table 3. Normality Test

No	Class	Learning Achievement	Significance Value
1	Control	Pre-test	0.270
		Post-test	0.333
2	Experimental	Pre-test	0.094
		Post-test	0.126

Table 3 shows the outcomes of the Shapiro–Wilk normality test applied to students' learning achievement data. For the control group, the significance levels were 0.270 (pre-test) and 0.333 (post-test), while the experimental group recorded 0.094 and 0.126 respectively. Since all p-values are greater than 0.05, the results confirm that both datasets follow a normal distribution, indicating that the data meet the assumptions required for subsequent statistical analyses in this research.

The homogeneity test aimed to verify if the datasets from different groups had similar variance values. The obtained results are summarized in the following table.

Table 4. Homogeneity Test

Variable	Based on Mean	Significance Value	Description
Learning Achievement	0.907	0.05	Homogeneous

Table 4 demonstrates that the obtained significance value, based on the mean, is 0.907—greater than the 0.05 threshold. Hence, it can be inferred that the post-test results from both the experimental and control groups are uniform, showing that the variances between the two samples are statistically equivalent.

Shown below is the t-test summary comparing post-test performances of the experimental and control classes.

Table 5. T-Test

Result	Independent Samples Test		
	t	df	Sig. (2-tailed)
	16.639	68	0.001

If the significance value is below 0.05, the null hypothesis (H_0) is rejected. In this case, since the obtained significance level (0.001) is less than 0.05, H_0 is rejected. This result signifies a statistically meaningful difference in learning outcomes between the experimental group—taught through the Team Games Tournament (TGT) cooperative learning model supported by the Genially Education-based snakes and ladders game, and the control group, which was taught using a conventional learning model.

Discussion

The study's results show that applying the cooperative learning approach—Team Games Tournament (TGT)—combined with the Genially Education-based snakes and ladders game, significantly enhances students' academic performance. Analysis results revealed a notable rise in the experimental group's mean score, from 50.48 on the pretest to 87.52 on the posttest—an improvement of 73.37%. This considerable gain demonstrates that the TGT model, supported by interactive, game-based media, effectively fostered a more engaging and enjoyable learning atmosphere, which in turn motivated students to better understand the learning material. Meanwhile, in the control class that applied conventional teaching methods, the improvement was only 25.27%, rising from an average of 44.10 to 55.24. This clear disparity indicates that the Team Games Tournament learning model yields greater improvement in students' academic performance than conventional teaching methods.

The significant improvement observed in the experimental group can be further explained through the interaction between cognitive and motivational mechanisms. From a cognitive standpoint, the TGT structure promotes *peer scaffolding* and social interaction, enabling students to construct knowledge collaboratively in line with Vygotsky's constructivist theory. The continuous exchange of ideas during group activities helps students clarify economic concepts and strengthen problem-solving abilities. From a motivational perspective, the integration of digital snakes and ladders through Genially introduces key gamification elements—such as

competition, challenge, and instant feedback—that sustain students’ engagement and foster intrinsic motivation. These elements transform the learning process into an enjoyable experience that encourages persistence and active participation. Consequently, the TGT approach not only leads to statistically significant differences but also provides pedagogical advantages by nurturing higher-order thinking skills (HOTS) and long-term conceptual retention.

The results of this research align with the findings of Syafitri et al., (2019), who discovered that using a cooperative learning approach—specifically the Team Games Tournament (TGT) model integrated with the Snakes and Ladders game—produced superior cognitive learning outcomes compared to puzzle-based media. This study strengthens earlier evidence, confirming that employing Snakes and Ladders as an instructional tool effectively enhances students’ motivation and comprehension. The game’s interactive design promotes active engagement and stimulates curiosity as learners attempt to answer questions that emerge throughout play.

Abriyanto et al., (2022) demonstrated that applying the Team Games Tournament (TGT) approach notably enhances students’ performance in Science learning. Similarly, Permatasari et al., (2018) confirmed that the TGT model effectively boosts academic achievement. Compared to other cooperative strategies, TGT proves more effective because its game-based structure fosters stronger motivation, active participation, and emotional involvement among students.

However, these findings not only reinforce previous research but also provide new insights into how the Team Games Tournament (TGT) model can contribute to achieving broader educational goals. Based on the constructivist theories developed by Jean Piaget and Lev Vygotsky, learning occurs most effectively through meaningful social interaction. The cooperative learning method represents a practical application of constructivist principles, emphasizing collaborative training that enables students to master complex or abstract concepts through group discussion (Sudirman, Burhanuddin, 2024). In this context, the TGT model encourages students to engage actively in discussions, collaborate within groups, and exchange knowledge to achieve common learning objectives. Game elements such as healthy competition and group rewards play an essential role in enhancing students’ intrinsic motivation, as they foster a sense of responsibility toward the success of their team. Furthermore, the implementation of TGT integrated with digital games carries significant pedagogical implications for developing Higher Order Thinking Skills (HOTS). Through interactive quizzes and challenging game-based situations, students are trained to analyze, reason, and make strategic decisions rather than merely recalling information. In the context of economics education, for example, students are not only expected to understand theoretical concepts but also to apply them in contextual and problem-based situations that mirror real-world economic phenomena.

Nevertheless, based on the results and analyses conducted, it can be concluded that the Team Games Tournament (TGT) learning model assisted by the Snakes and Ladders game has a significant influence not only on students’ academic achievement quantitatively, but also on the enhancement of their social, collaborative, and cognitive competencies. Learning activities designed interactively through digital quizzes effectively encourage students’ active participation, thereby facilitating a more optimal understanding of the learning concepts. The significant difference in post-test results between the experimental and control classes indicates

that integrating the Snakes and Ladders game into the TGT learning model provides substantial added value and can serve as an effective alternative teaching strategy.

CONCLUSION

This study clearly demonstrates a significant improvement in students' learning achievement following the implementation of the Team Games Tournament (TGT) learning model supported by the Snakes and Ladders game, compared to the conventional teaching method. The findings indicate that adopting innovative cooperative learning models, complemented by interactive digital media such as Genially Education, has a positive effect on students' academic performance in the subject of Economics at SMAN 2 Lubuk Basung. This improvement was not only reflected in the students' test results but also in their enthusiasm and active participation throughout the learning process. Students displayed greater engagement, experienced a more interactive and enjoyable learning environment, and benefited from immediate feedback provided through the game format. Therefore, it can be concluded that the selection of appropriate learning models and media plays a crucial role in enhancing the effectiveness of the teaching and learning process. However, this research has certain limitations regarding the scope of its variables, as it focused solely on academic achievement without considering other important aspects such as learning motivation, collaborative skills, or affective engagement. Moreover, the study was conducted within a specific context—a single school level, institution, and subject area—so the generalizability of the findings should be approached with caution.

In light of these findings and limitations, future research is encouraged to expand the scope of inquiry by, investigating the long-term retention of knowledge gained through the TGT model supported by game-based media, examining the effects of the model on students' intrinsic and extrinsic motivation and their interest in learning Economics, Exploring affective and social engagement within digital cooperative learning environments, adapting and testing the TGT model in different subjects and educational levels to assess its consistency and broader applicability. From a practical standpoint, teachers are encouraged to continuously innovate by integrating interactive digital learning media that foster student participation and create a collaborative and engaging classroom environment. For education policymakers, the results of this study may serve as a foundation for promoting the implementation of digital game-based learning models across schools and for providing teacher training programs aimed at developing digital pedagogical competencies. In conclusion, this research not only provides empirical evidence of the effectiveness of the TGT model assisted by the Snakes and Ladders game but also opens new opportunities for the development of innovative, adaptive, and student-centered learning strategies that align with the demands of the digital era.

REFERENCES

- Abriyanto, H., Megawati, M., & Retnowati, K. (2022). Metode Kooperatif Tipe Teams Games Tournaments Dalam Meningkatkan Hasil Belajar Siswa. *Journal of Innovation in Teaching and Instructional Media*, 3(1), 15–27. <https://doi.org/10.52690/jitim.v3i1.704>
- Ahmadi, A., & Supriyono, W. (2011). *Psikologi Belajar* (3rd ed.). PT. Rineka Cipta.
- Arizka, N., & Khairuna, K. (2022). The effect of the team games tournament learning model assisted by question card media on student learning outcomes. *BIO-INOVED : Jurnal Biologi-Inovasi Pendidikan*, 4(3), 260. <https://doi.org/10.20527/bino.v4i3.13874>
- Azwar, S. (2006). *Reliabilitas dan validitas* (3rd ed.). Pustaka pelajar.
- Azwar, S. (2022). *Sikap Manusia Teori dan Pengukurannya* (3rd ed.). Pustaka Belajar.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining “gamification.” *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, MindTrek 2011, September, 9–15*. <https://doi.org/10.1145/2181037.2181040>
- Dr. Malawi Ibadullah, M. P., & Dr. Kadarwati Ani, M. P. (2017). *Pembelajaran Tematik (konsep dan aplikasi)* (Edisi kedua). CV. AE MADIKA GRAFIKA.
- Ervianna, R., Sari, K., Hadi, D. S., Si, M., & Prishardoyo, D. B. (2012). Upaya Peningkatan Hasil Belajar Dengan Menggunakan Model Pembelajaran Kooperatif Team Games Tournament. *Economic Education Analysis Journal*, 1(1).
- Fitri, W., & Oknaryana, O. (2024). Penerapan Model Pembelajaran Project Based Learning Berbantuan Media Pembelajaran Scrapbook Terhadap Hasil Belajar. *Jurnal Ecogen*, 7(3), 498. <https://doi.org/10.24036/jmpe.v7i3.16550>
- Franky, D., & Chamundeswari, S. (2014). Psycho-social correlates of academic achievement of students. *International Journal of Current Research and Academic Review*, 2(2), 148–158. <http://www.ijcrar.com/vol-2-2/Deepa Franky and S.Chamundeswari.pdf>
- Fransisca, R., Wulan, S., & Supena, A. (2020). Meningkatkan Percaya Diri Anak dengan Permainan Ular Tangga Edukasi. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 4(2), 630. <https://doi.org/10.31004/obsesi.v4i2.405>
- Hamari, J., Shernoff, D. J., Rowe, E., Coller, B., Asbell-Clarke, J., & Edwards, T. (2016). Challenging games help students learn: An empirical study on engagement, flow and immersion in game-based learning. *Computers in Human Behavior*, 54, 170–179. <https://doi.org/10.1016/j.chb.2015.07.045>
- Johnson, D. 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>
- Khosiin, K. (2020). Pengaruh Motivasi Belajar Terhadap Prestasi Belajar Siswa Melalui Penggunaan Model Pembelajaran Teams Games Tournaments (TGT) Pada Mata Pelajaran Biologi Kelas X di MA NU 03 Sunan Katong Kaliwungu Kendal. *Journal Of Biology Education*, 3(2), 143. <https://doi.org/10.21043/job.v3i2.7762>
- Lodge, C. (2002). ‘Learning is something you do to children’ Discourses of learning and student empowerment. *Improving Schools*, 5(1), 21–35. <https://doi.org/10.1177/136548020200500106>
- Mahardi, I. P. Y. S., Murda, I. N., & Astawan, I. G. (2019). Model Pembelajaran Teams Games Tournament Berbasis Kearifan Lokal Trikaya Parisudha Terhadap Pendidikan Karakter Gotong Royong Dan Hasil Belajar Ipa. *Jurnal Pendidikan Multikultural Indonesia*, 1(2), 98–107. <https://doi.org/10.23887/jpmu.v2i2.20821>
- Permatasari, M., Kurnia, D., & Rostikawati, R. T. (2018). The Effect of Teams Games Tournament

- (TGT) and Student Teams Achievement Divisions (STAD) Teaching Techniques on The Learning Outcome of Natural Science Subject. *Jhss (Journal of Humanities and Social Studies)*, 2(1), 7–11. <https://doi.org/10.33751/jhss.v2i1.814>
- Putri, P. O., & Wati, E. (2019). Implementasi Model Pembelajaran Team Game Tournament(Tgt) Untuk Meningkatkan Aktifitas Belajar Siswa. *Intersections*, 4. <https://doi.org/10.47200/intersections.v5i1.514>
- Sailer, M., & Homner, L. (2020). The Gamification of Learning: a Meta-analysis. *Educational Psychology Review*, 32(1), 77–112. <https://doi.org/10.1007/s10648-019-09498-w>
- Slameto. (2010). *Belajar dan Faktor-Faktor Yang Mempengaruhi* (5th ed.). PT. Rineka Cipta.
- Slavin, R. E. (2014). Cooperative Learning and Academic Achievement: Why Does Groupwork Work? *Anales de Psicologia*, 30(3), 785–791. <https://doi.org/10.6018/analesps.30.3.201201>
- Solihatini, E., & Öztürk, A. (2014). Increasing Civics Learning Achievement by Applying Cooperative Learning: Team Game Tournament Method. *Sociology Study*, 4(11), 949–954. <https://doi.org/10.17265/2159>
- Sudirman, Burhanuddin, F. (2024). Teori-Teori Belajar dan Pembelajaran “Neurosains dan Multiple intelligence.” In M. Kahar, Nurhayati (Ed.), *ペインクリニック学会治療指針 2* (pertama). PT. Pena Persada Kerta Utama.
- Sudjana Nana. (2017). *Penilaian hasil proses belajar mengajar* (cetakan ke). PT. REMAJA ROSDAKARYA.
- Syafitri, A., Amir, H., & Elvinawati, E. (2019). Perbandingan Hasil Belajar Siswa Menggunakan Pembelajaran Kooperatif Tipe Team Games Tournament (Tgt) Dengan Media Ular Tangga Dan Media Puzzle Di Kelas Xi Sma Negeri 01 Bengkulu Tengah. *Alotrop*, 3(2), 132–138. <https://doi.org/10.33369/atp.v3i2.9911>
- Syukurti, D. (2020). Penerapan Model Pembelajaran Kooperatif Tipe Team Games Tournament Berbantuan Media Permainan Ular Tangga untuk Meningkatkan Konsentrasi dan Hasil Belajar. *Jurnal Ilmiah Teknologi Pendidikan*, 10(1), 31–37.
- Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. In M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.), *Harvard University Press*. <https://doi.org/10.3928/0048-5713-19850401-09>