

## Self-Regulated Learning Needs in Teams Games Tournament: A Systematic Literature Review in Elementary Education

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### Abstract

*Self-Regulated Learning is an important factor in the successful implementation of learning models, including the Teams Games Tournament (TGT) model, which is often overlooked and receives less attention in learning practices. This article aims to analyze the need for Self-Regulated Learning in the Teams Games Tournament learning model based on the results of a literature review. This study adopted a systematic literature review approach by formulating research questions, namely: (i) what are the characteristics of research related to Self-Regulated Learning in TGT learning, (ii) what components of Self-Regulated Learning influence TGT learning, and (iii) what is the role of Self-Regulated Learning in supporting the effectiveness of the TGT learning model implementation. The subjects of this study were articles published in journals indexed by Google Scholar, Garuda, and DOAJ. The article selection process used the PRISMA method, resulting in 22 relevant articles from 254 articles. The results of the review indicate that the implementation of the Teams Games Tournament learning model generally has a positive impact on student engagement and learning outcomes, but its success is highly dependent on the level of Self-Regulated Learning. The most dominant SRL components required in TGT learning include learning planning, self-monitoring, and self-evaluation. Based on these findings, it can be concluded that Self-Regulated Learning is an essential requirement that needs to be systematically integrated into the Teams Games Tournament learning model.*

**Keywords:** *Self-Regulated Learning, Teams Games Tournament, Learning Model, Self-Regulated Learning Components*

### Abstrak

Pembelajaran Mandiri (Self-Regulated Learning/STR) merupakan faktor penting dalam keberhasilan implementasi model pembelajaran, termasuk model Teams Games Tournament (TGT), yang seringkali diabaikan dan kurang mendapat perhatian dalam praktik pembelajaran. Artikel ini bertujuan untuk menganalisis kebutuhan akan Pembelajaran Mandiri dalam model pembelajaran Teams Games Tournament berdasarkan hasil tinjauan pustaka. Penelitian ini menggunakan pendekatan tinjauan pustaka sistematis dengan merumuskan pertanyaan penelitian, yaitu: (i) apa saja karakteristik penelitian yang berkaitan dengan Pembelajaran Mandiri dalam pembelajaran TGT, (ii) apa saja komponen Pembelajaran Mandiri yang memengaruhi pembelajaran TGT, dan (iii) apa peran Pembelajaran Mandiri dalam mendukung efektivitas implementasi model pembelajaran TGT. Subjek penelitian ini adalah artikel yang diterbitkan dalam jurnal yang terindeks oleh Google Scholar, Garuda, dan DOAJ. Proses seleksi artikel menggunakan metode PRISMA, menghasilkan 22 artikel relevan dari 254 artikel. Hasil tinjauan menunjukkan bahwa implementasi model pembelajaran Turnamen Permainan Tim secara umum berdampak positif pada keterlibatan siswa dan hasil belajar, tetapi keberhasilannya sangat bergantung pada tingkat Pembelajaran Mandiri (Self-Regulated Learning/SRL). Komponen SRL yang paling dominan yang dibutuhkan dalam pembelajaran TGT meliputi perencanaan pembelajaran, pemantauan diri, dan evaluasi diri. Berdasarkan temuan ini, dapat disimpulkan bahwa Pembelajaran Mandiri merupakan persyaratan penting yang perlu diintegrasikan secara sistematis ke dalam model pembelajaran Turnamen Permainan Tim.

**Kata kunci:** Pembelajaran Mandiri, Turnamen Permainan Tim, Model Pembelajaran, Komponen Pembelajaran Mandiri



## INTRODUCTION

21st-century education emphasizes not only students' mastery of academic content but also their ability to manage learning independently and adaptively. One essential competence is self-regulated learning (SRL), defined as students' active ability to plan, monitor, control, and reflect on their cognitive, motivational, and behavioral processes during learning (Zimmerman, 2002; Panadero, 2017). Empirical studies have shown that students with low SRL tend to experience difficulties in maintaining learning consistency, show lower academic achievement, and depend heavily on teacher guidance. For instance, several studies in elementary education contexts report that a significant proportion of students demonstrate low levels of learning independence and self-monitoring skills, which negatively impact their academic performance.

In response to these challenges, the learning paradigm has shifted from teacher-centered to student-centered approaches. One widely implemented cooperative learning model is Teams Games Tournament (TGT), which integrates teamwork, academic games, and structured competition to enhance student engagement and motivation (Slavin, 1995). TGT encourages students to actively participate, collaborate, and take responsibility for their group performance. However, despite its potential, the implementation of TGT does not always yield optimal outcomes in practice.

Several empirical studies indicate persistent problems in TGT implementation. For example, Fadhilaturrahmi and Ananda (2019) found that although TGT improved mathematics learning outcomes, student participation within groups remained unequal, with some students dominating while others were passive. Similar findings across studies suggest that cooperative learning often suffers from issues such as social loafing, unequal contribution, and dependency on high-achieving students. These patterns indicate that the effectiveness of TGT is not solely determined by instructional design but is also influenced by students' internal learning capacities.

From a theoretical perspective, SRL plays a crucial role in addressing these issues. In the context of TGT, SRL operates through several mechanisms. First, the planning phase enables students to set learning goals and prepare strategies before participating in group activities. Second, the monitoring process helps students track their understanding during discussions and games. Third, self-control and motivation regulation support sustained engagement and prevent passive participation. Finally, self-reflection allows students to evaluate their performance and improve future learning strategies. These mechanisms suggest that SRL can function as an internal driver that enhances individual accountability and optimizes the collaborative structure of TGT.

Previous studies have demonstrated a positive relationship between SRL and TGT effectiveness. Purnamasari and Haryanto (2020) reported that the integration of SRL within TGT significantly improved students' mathematics achievement. Putri and Musdi (2021) found that TGT not only enhanced learning outcomes but also fostered students' SRL abilities. Similarly, Rachman et al. (2021) showed that TGT contributed to both cognitive achievement and self-regulation skills. However, these studies are mostly fragmented and focus on specific outcomes without providing a comprehensive understanding of how SRL components function within the TGT framework.

However, previous studies tend to examine Self-Regulated Learning (SRL) and Teams Games Tournament (TGT) separately, with limited attention to how SRL is integrated within cooperative learning processes. Most studies focus on learning outcomes rather than explaining the mechanisms through which SRL supports student interaction, participation, and strategy use in TGT settings. This indicates a conceptual gap, where SRL is treated as an independent variable rather than an embedded learning process. In addition, the dominance of quantitative approaches reflects a methodological gap, as few studies explore the process of SRL in depth. Therefore, a systematic

synthesis is needed to provide a comprehensive understanding of how SRL contributes to the effectiveness of TGT learning.

Despite the growing body of research, there is a clear gap in the literature. First, no study has systematically synthesized findings on the relationship between SRL and TGT learning. Second, the dominant components of SRL that most influence TGT effectiveness remain unclear. Third, the underlying mechanisms explaining how SRL supports cooperative learning processes have not been comprehensively analyzed. This indicates a significant methodological gap, particularly the absence of a Systematic Literature Review (SLR) that integrates and evaluates existing evidence on this topic.

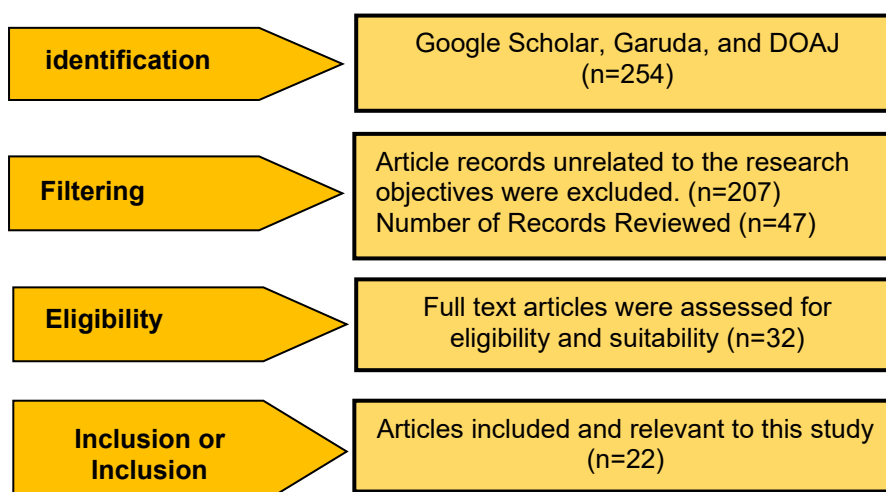
Therefore, this study aims to address these gaps by conducting a Systematic Literature Review (SLR) on Self-Regulated Learning in the context of Teams Games Tournament learning. This study seeks to (1) identify the characteristics of research related to SRL in TGT learning, (2) analyze the dominant SRL components influencing TGT effectiveness, and (3) examine the role and mechanisms of SRL in supporting effective TGT implementation. The findings are expected to provide both theoretical insights and practical implications for developing more effective cooperative learning strategies through the strengthening of students' self-regulation skills.

## METHOD

This study uses a Systematic Literature Review (SLR) approach to analyze the role of Self-Regulated Learning (SRL) in Team Games Tournament (TGT) learning. The research procedure refers to the PRISMA (identification, screening, eligibility, inclusion) guidelines to ensure transparency and replicability. The literature search was conducted through Google Scholar, Garuda, and DOAJ in the period 2017–2026 using a combination of keywords related to SRL and TGT processed using Boolean operators (AND, OR).

Inclusion criteria included: (1) empirical research articles (quantitative or mixed methods), (2) discussing SRL, TGT, or the relationship between the two, (3) published in peer-reviewed journals, (4) focusing on educational contexts (primary and secondary schools), and (5) available in full text. Exclusion criteria included: (1) non-research articles, (2) not relevant to the focus of the study, (3) duplication, and (4) having unclear methodology or incomplete data.

Of the initial 254 articles, 22 articles met the criteria and were analyzed (Figure 1).



**Figure 1. PRISMA Flow**

Article quality was assessed based on the clarity of objectives, research design, data collection methods, and the validity of the findings. Data were extracted and coded,

covering study characteristics, SRL components (planning, monitoring, controlling, and reflection), TGT implementation, and key findings.

Thematic analysis was used to identify patterns and relationships between SRL and TGT effectiveness. Potential publication bias and database limitations were considered in interpreting the results.

## RESULTS AND DISCUSSION

### 1. Search Results and Evaluation of Self-Regulated Learning Articles in Team Games Tournament Learning

Table 1. presents a summary of the findings from various relevant articles obtained through the PRISMA process, as follows.

**Table 1. Summary of Findings from 22 Articles**

No	Writer	Methodology	Key Findings
1	Ng, D. T. K., <i>et al.</i> (2024)	Quantitative: Quasi-Experimental	Improves learning outcomes
2	Taranto, D., & Buchanan, M. T. (2020)	Literature Review	SRL enhances TGT effectiveness
3	Anthonymsamy, L., <i>et al.</i> (2020)	Quantitative	Improves achievement
4	Anthonymsamy, L., <i>et al.</i> (2020).	Literature Review	Increases participation and outcomes
5	Luo, R. Z., & Zhou, Y. L. (2024)	Literature Review	Improves classroom performance
6	Russell, J. M., <i>et al.</i> (2022)	Quantitative	Effective in mathematics learning
7	Rizqi, A. R., <i>et al.</i> (2025)	ADDIE Development	Increases motivation
8	Sari, S. N., <i>et al.</i> (2025)	Classroom Action Research (CAR)	Improves SRL through media
9	Khoiriah, I., <i>et al.</i> (2024)	Literature Review	Monitoring is dominant component
10	Diah, R., & Siregar, N. (2023)	Quantitative Experiment	Enhances problem-solving skills
11	Utami, N. P., <i>et al.</i> (2022)	Quantitative Experiment	Positively related to achievement
12	Anwar, Y. A. S., & Junaidi, E. (2022)	Quantitative	Supports independent learning
13	Sarbia, S., <i>et al.</i> (2017)	Quantitative Experiment	Defines SRL framework
14	Putra, I. K. A. D., <i>et al.</i> (2019)	Quantitative	Explains SRL models
15	Hidayah, N., & SUMBAWATI, M. S. (2019)	Quantitative	Unequal participation found
16	Anggraini, M. N. E., <i>et al.</i> (2022)	Quantitative	Improves engagement
17	Tarumasely, Y. (2020)	Quantitative Experiment	Improves student activity
18	Kirana, D. L. (2022)	Literature Review	Increases motivation
19	Kamelia, S., & Pujiastuti, H. (2020)	Quantitative	Improves learning independence
20	Khoirudin, M., <i>et al.</i> (2022)	Quantitative Experiment	Enhances effectiveness
21	Agustina, V., <i>et al.</i> (2022)	Mixed Method	Improves outcomes
22	Herawati, I., <i>et al.</i> (2023)	Quantitative Correlational	Improves academic performance

Based on the PRISMA selection process, 22 relevant studies were included in this review. A quantitative overview indicates that experimental and quantitative designs dominate the literature (64%), followed by literature reviews (18%), classroom action research (9%), and mixed or development studies (9%). This

distribution suggests that most studies focus on measuring the effectiveness of learning outcomes rather than exploring the learning process in depth.

The dominance of quantitative approaches reflects a broader trend in educational research, where learning success is often evaluated through measurable outcomes such as achievement scores and participation rates. However, this tendency also indicates a methodological limitation, as it provides limited insight into how Self-Regulated Learning (SRL) operates during the learning process (Panadero, 2017). As a result, the internal mechanisms through which SRL influences student behavior in cooperative settings remain underexplored.

Furthermore, only approximately half of the reviewed studies explicitly integrate SRL within the Teams Games Tournament (TGT) learning model, while the remaining studies examine SRL and TGT separately. This imbalance highlights a conceptual gap in the literature. SRL is often positioned as an outcome variable rather than as an embedded process that supports learning interactions. Previous studies, such as Purnamasari and Haryanto (2020) and Putri and Musdi (2021), demonstrate positive relationships between SRL and learning outcomes, yet they do not sufficiently explain how SRL is enacted during cooperative learning activities.

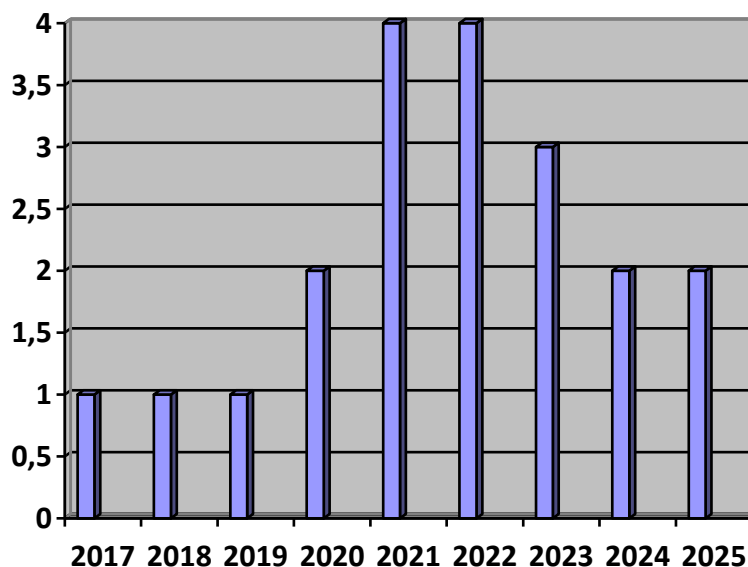


Figure 2. Publication trend by year

The increasing number of publications after 2020 reflects a growing emphasis on 21st-century skills, particularly learner autonomy and self-regulation. However, despite this trend, the lack of integrative and process-oriented studies suggests that the field has not fully addressed how SRL functions within structured cooperative learning models such as TGT. This finding reinforces the need for more comprehensive approaches that combine effectiveness measurement with process analysis.

## 2. Important Components of Self-Regulated Learning

Table 2. presents a summary of findings from various relevant articles regarding the components of Self-Regulated Learning, as follows.

Table 2. Summary of SRL Components

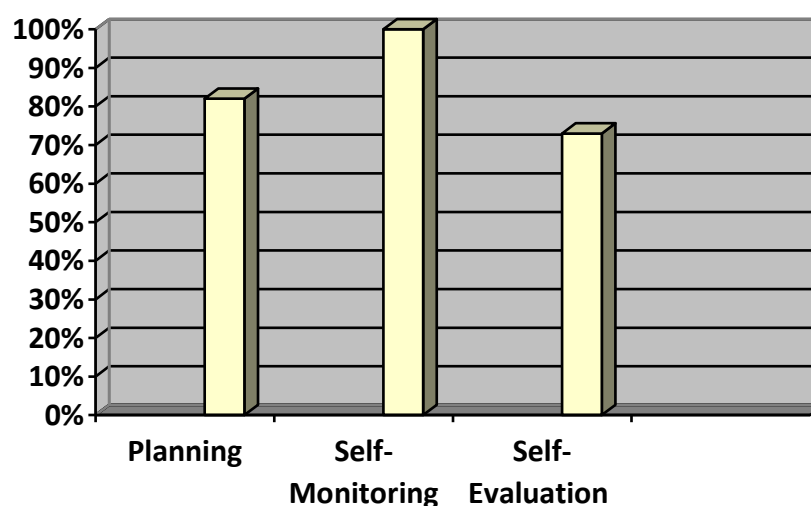
No	Penulis	Komponen SRL
1	Ng, D. T. K., <i>et al.</i> (2024)	Learning planning, self-monitoring, and self-evaluation
2	Anthonyamy, L., <i>et al</i> (2020)	Learning planning and self-monitoring

3	Luo, R. Z., & Zhou, Y. L. (2024)	Learning planning and self-monitoring
4	Utami, N. P., <i>et al.</i> (2022)	Learning planning, self-monitoring, and self-evaluation
5	Anwar, Y. A. S., & Junaidi, E. (2022)	Self-monitoring
6	Sarbia, S., <i>et al.</i> (2017)	Learning planning, self-monitoring, and self-evaluation
7	Putra, I. K. A. D., <i>et al.</i> (2019)	Learning planning, self-monitoring, and self-evaluation
8	Anggraini, M. N. E., <i>et al.</i> (2022)	Learning planning, self-monitoring, and self-evaluation
9	Tarumasely, Y. (2020)	Learning planning, self-monitoring, and self-evaluation
10	Kamelia, S., & Pujiastuti, H. (2020)	Self-monitoring
11	Khoirudin, M., <i>et al.</i> (2022)	Learning planning, self-monitoring, and self-evaluation

The synthesis of the reviewed studies reveals that three main components of SRL-learning planning, self-monitoring, and self-evaluation-consistently emerge as the most influential in TGT learning contexts. Among these components, self-monitoring appears in nearly all studies (100%), while planning (82%) and self-evaluation (73%) are less consistently addressed.

The prominence of self-monitoring can be explained by the nature of TGT learning, which requires students to actively engage in discussions, games, and competitive activities. In such dynamic environments, students must continuously assess their understanding and adjust their strategies in real time. This finding aligns with the theoretical perspective that monitoring plays a central role in regulating cognitive processes during learning (Zimmerman, 2002).

However, the uneven distribution of SRL components indicates that SRL is often implemented partially rather than holistically. While monitoring is emphasized during learning activities, the planning phase is sometimes overlooked, and reflection (self-evaluation) is frequently underdeveloped. This is problematic because SRL is inherently cyclical, involving planning, monitoring, and reflection as interconnected processes (Panadero, 2017).



**Figure 3. Distribution of SRL Components**

The limited emphasis on self-evaluation suggests that students are rarely guided to reflect on their learning outcomes and strategies after completing TGT activities. Without reflection, students may improve short-term performance but fail to

develop long-term learning strategies. Therefore, the findings indicate that effective integration of SRL in TGT learning requires a more balanced implementation of all SRL components.

### **3. *The Role of Self-Regulated Learning in Supporting the Effectiveness of the Implementation of the Teams Games Tournament Learning Model***

The findings of this review indicate that SRL functions as a key internal factor that strengthens the effectiveness of TGT learning. Students with higher levels of SRL tend to demonstrate better academic achievement, stronger engagement, and more consistent participation in group activities (Rachman et al., 2021). This suggests that SRL enhances individual accountability, which is essential in cooperative learning environments.

However, the effectiveness of TGT is not always consistent across studies. While many studies report positive outcomes, others highlight challenges such as unequal participation, social loafing, and dependence on high-achieving students (Fadhilaturrahmi & Ananda, 2019). These issues indicate that the cooperative structure of TGT alone is insufficient to ensure active participation from all group members.

From a theoretical perspective, SRL can address these challenges by functioning as an internal regulatory mechanism. During the planning phase, students set goals and prepare strategies before participating in group activities. In the monitoring phase, they track their understanding and contributions during discussions and games. Finally, through self-evaluation, students reflect on their performance and identify areas for improvement. These processes help students become more responsible and engaged learners, thereby optimizing the effectiveness of TGT.

Despite these findings, most studies only report the relationship between SRL and learning outcomes without explaining the underlying mechanisms. SRL is frequently treated as an independent variable rather than as an integral part of the learning process. This indicates a conceptual limitation in the current literature.

In addition, the dominance of quantitative research limits the exploration of how SRL supports interaction, collaboration, and strategy use in TGT settings. Few studies adopt qualitative or mixed-method approaches to examine these processes in depth. As a result, the understanding of SRL within cooperative learning remains fragmented.

Therefore, future research should focus on exploring the integration of SRL into TGT learning through process-oriented approaches. This includes examining how teachers can design learning activities that explicitly support planning, monitoring, and reflection, as well as how students experience and develop SRL skills during cooperative learning.

## **CONCLUSION**

Self-Regulated Learning in Team Games Tournament learning is dominated by a quantitative approach and demonstrates consistent findings regarding the importance of SRL in improving the effectiveness of cooperative learning. The main components of SRL that are most influential in TGT learning include learning planning, self-monitoring, and self-evaluation, which work cyclically to support student independence and learning success.

Self-Regulated Learning plays an essential role in strengthening the effectiveness of the Teams Games Tournament model, particularly in improving engagement, learning outcomes, and the quality of the learning process. Therefore, SRL is not only seen as an individual characteristic of students, but also as a pedagogical need that needs to be

systematically integrated into the planning, implementation, and evaluation of TGT learning. These findings imply that future development of the TGT learning model needs to be accompanied by strategies to strengthen Self-Regulated Learning so that learning objectives can be optimally achieved.

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