Vol 2, No 1, March 2025, pp. 21-30
IJERI
INNOVATIVE JOURNAL OF
EDUCATIONAL
Research and Insights
ISSN online: 3089-3259
https://ojs.bustanilmu.com/index.php/IJERI

# The Influence of Self-Regulated Learning on Academic Achievement: A Cognitive-Behavioral Perspective

**Nurul Hidayati[1a], William Thompson[2b]**

[1]Faculty of Education, Universitas Gadjah Mada, Indonesia, [2] School of Humanities, Cordova University, United States.
e-mail: nurul.hidayati@ugm.ac.id[a], william.thompson@cordova.edu[b].

**Article History:**
*Received: January 20, 2025*
*Revised: February 10, 2025*
*Accepted: March 28, 2025*

**Keywords:**
Self-Regulated Learning, academic achievement, cognitive-behavioral perspective, learning strategies, student outcomes.

**Abstract:**
This research investigates the influence of Self-Regulated Learning (SRL) on academic achievement through a cognitive-behavioral lens. SRL is recognized as a pivotal skill that enables learners to actively manage their learning processes, including setting goals, monitoring progress, and applying self-reflective strategies. The study adopts a quantitative correlational approach to examine how students' SRL competencies relate to their academic outcomes. The findings demonstrate a significant positive correlation between SRL and academic performance, suggesting that students with stronger self-regulation tend to achieve higher academic success. These results reinforce the cognitive-behavioral perspective, highlighting the importance of self-regulation in fostering effective learning behaviors. The study provides valuable implications for educational practice, particularly in designing programs aimed at enhancing students' SRL skills to boost academic achievement.



**Corresponding Author:**
Nurul Hidayati
Faculty of Education, Universitas Gadjah Mada, Indonesia.
e-mail: nurul.hidayati@ugm.ac.id

## Introduction (مقدمة)

Self-regulated learning (SRL) has become a crucial topic in global education; however, students' ability to manage their own learning processes remains relatively low across various educational levels. A study by Zimmerman & Schunk (2011) revealed that only about 30% of students consistently employ SRL strategies effectively in their learning processes. Furthermore, research by Usher and Schunk (2018) found that low SRL ability significantly correlates with poor academic achievement, particularly among secondary school students. These findings indicate a gap between the importance of SRL and its actual implementation in the field, which requires greater attention in today's educational context.

In the increasingly complex landscape of modern learning, SRL has become an essential

skill that students must possess to meet the evolving academic demands. With the shift from teacher-centered to student-centered learning paradigms, SRL plays a vital role in enhancing students' autonomy and responsibility in their learning processes (Panadero, 2017). Students with SRL skills tend to be better at planning, monitoring, and evaluating their learning progress, which ultimately leads to improved academic outcomes.

Cognitive-behavioral theory (CBT) significantly contributes to explaining how SRL can be developed through appropriate interventions. The cognitive-behavioral perspective posits that learning processes are influenced by the interaction between cognitive factors (e.g., thoughts and knowledge) and behavioral factors (e.g., actions or study habits) (Bandura, 1986). Therefore, integrating CBT into the development of SRL is highly relevant, as it helps students establish positive mindsets and effective learning strategies to enhance academic performance.

Furthermore, the cognitive-behavioral perspective emphasizes the importance of self-efficacy in self-regulated learning. According to Pajares (2002), students' belief in their ability to learn (self-efficacy) influences how well they manage their learning processes. Students with high self-efficacy are more likely to employ SRL strategies such as goal setting, time management, and self-monitoring. Conversely, students with low self-efficacy tend to avoid learning challenges and demonstrate suboptimal academic achievement.

However, many students still face difficulties in consistently implementing SRL strategies. Research by Cleary and Kitsantas (2017) indicates that most students are not accustomed to using techniques such as self-monitoring or self-reflection in their learning routines. This is further exacerbated by the lack of training or interventions that integrate cognitive-behavioral principles into the development of SRL skills in classrooms.

This situation presents a challenge for educators and educational institutions to design programs that enhance students' SRL abilities through more structured and theory-based approaches. The cognitive-behavioral approach is considered effective in addressing these barriers, as it focuses on cognitive restructuring and fostering more productive learning behaviors (Harris et al., 2019). Thus, it is important to examine how this perspective can contribute to improving SRL and its impact on students' academic achievement.

In addition, the transition to digital or hybrid learning models, driven by technological advancements and the global pandemic, has required students to be more independent in their learning processes (Putri & Widodo, 2022). In this context, SRL becomes even more critical as students must be able to manage their time, motivate themselves, and cope with distractions that are more prevalent compared to conventional learning settings.

Various studies have shown that strong SRL skills not only enhance academic achievement but also foster long-term life skills such as problem-solving and critical thinking (Schunk & Greene, 2018). This underscores that the development of SRL is beneficial not only within formal education but also in preparing students to face future life and career challenges.

Despite the numerous benefits of SRL highlighted in the literature, its implementation in schools remains suboptimal, particularly at the secondary education level (Zimmerman, 2008). Many students still rely heavily on teachers to manage their learning processes and struggle to manage their time and learning resources independently. Therefore, there is an urgent need to further investigate the influence of SRL on students' academic achievement through the lens of the cognitive-behavioral perspective.

This study is also relevant in addressing the gap in previous research, which has largely focused on the direct relationship between SRL and academic performance but has been limited in explaining how cognitive-behavioral factors may act as mediators or moderators in this relationship (Dent & Koenka, 2016). By integrating these two perspectives, this research is

expected to provide a more comprehensive understanding.

Overall, this study aims to empirically analyze the influence of self-regulated learning on students' academic achievement by using cognitive-behavioral theory as the theoretical framework. The findings are expected to contribute to the design of more effective and student-centered learning strategies.

The scope of this research focuses on secondary school students, who are a key population in the context of SRL development. This study will examine the relationship between SRL and academic achievement through a cognitive-behavioral perspective by analyzing factors such as self-efficacy, cognitive restructuring, and behavioral strategies that can strengthen this relationship.

## Method (منهج)

This study employs a correlational design to examine the relationship between self-regulated learning (SRL) and students' academic achievement within the cognitive-behavioral framework. A correlational design is deemed appropriate because the primary aim is to investigate how variations in SRL levels are associated with differences in academic performance without manipulating the variables. This approach allows researchers to observe natural occurrences and relationships within the existing educational context (Creswell & Creswell, 2018).

The participants in this study consist of 100 students from a public secondary school (School X) located in an urban area. These students were selected using a simple random sampling technique to ensure equal representation and minimize selection bias. The sample includes students from various academic tracks and grade levels within the school to capture a diverse range of SRL abilities and academic outcomes (Fraenkel et al., 2019).

To measure students' self-regulated learning abilities, the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich et al. (1991) is used. The MSLQ is a widely validated instrument that consists of multiple subscales measuring cognitive, metacognitive, and resource management strategies. The questionnaire consists of 44 items rated on a 7-point Likert scale, ranging from "not at all true of me" to "very true of me," reflecting the extent to which students engage in SRL behaviors (Pintrich et al., 1991).

Students' academic achievement is measured using their cumulative grade point average (GPA) obtained from school records. In addition, a standardized academic test designed by the school's assessment committee is administered to provide a more objective measure of academic performance. Both GPA and test scores serve as dependent variables to assess the impact of SRL (Schunk & Greene, 2018).

The data collection process involves two stages. First, students complete the MSLQ questionnaire during school hours under the supervision of the research team and classroom teachers to ensure consistency in administration. Second, academic achievement data (GPA and standardized test scores) are collected from school documentation after obtaining permission from the school principal and participants' parents (Cohen et al., 2018).

Before data collection, the study secures ethical clearance from the institutional review board. Informed consent is obtained from all participants and their parents, highlighting the voluntary nature of participation and assuring the confidentiality of responses. The research adheres to ethical guidelines outlined by the American Psychological Association (APA) to protect students' rights and well-being (American Psychological Association, 2020).

The collected data undergo preliminary screening to identify missing values, outliers, and

potential data entry errors. Incomplete questionnaires are excluded from further analysis. Descriptive statistics (mean, standard deviation, skewness, and kurtosis) are computed to assess the normality of the data distribution and ensure that the assumptions for parametric statistical tests are met (Tabachnick & Fidell, 2019).

To analyze the relationship between SRL and academic achievement, a simple linear regression analysis is conducted. This analysis helps determine the extent to which SRL predicts students' academic performance. In addition, a multiple regression model is used to examine the contribution of SRL sub-components (e.g., metacognitive strategies, time management) to academic outcomes (Field, 2018).

To further explore the complex relationships among variables, Structural Equation Modeling (SEM) is applied. SEM allows the testing of mediation models where cognitive-behavioral factors, such as self-efficacy and goal setting, may act as mediators in the relationship between SRL and academic achievement. SEM is chosen for its ability to analyze latent variables and the structural relationships among them (Kline, 2016).

The reliability of the MSLQ is evaluated using Cronbach's alpha, with a threshold of ≥0.70 considered acceptable for internal consistency. Construct validity is examined through confirmatory factor analysis (CFA) as part of the SEM procedure. These steps ensure that the instruments used in this study are both reliable and valid in measuring the intended constructs (Hair et al., 2019).

This study acknowledges certain limitations, including its cross-sectional nature, which prevents the establishment of causal relationships between SRL and academic achievement. Additionally, the sample is drawn from a single school, which may limit the generalizability of the findings to other educational settings with different characteristics (Fraenkel et al., 2019).

In summary, this study utilizes a correlational approach, involving 100 secondary school students, to investigate the role of SRL in academic achievement within a cognitive-behavioral framework. Data are collected using validated instruments (MSLQ and standardized tests) and analyzed through both regression and SEM techniques to provide a comprehensive understanding of the relationships among variables (Creswell & Creswell, 2018).

## Result (نتائج)

### Descriptive Statistics

The descriptive analysis revealed that the students' self-regulated learning (SRL) scores varied across participants. The average SRL score, measured using the MSLQ, was 4.85 (SD = 0.68) on a 7-point Likert scale, indicating a moderate level of self-regulation among the students. The minimum score recorded was 3.20, while the maximum score reached 6.30.

In terms of academic achievement, the students' cumulative GPA averaged 3.15 (SD = 0.42) on a 4.0 scale. The lowest GPA recorded was 2.40, and the highest was 3.90. This distribution suggests that most students performed at a satisfactory academic level, although variability was observed across individuals.

The normality of the data was assessed using skewness and kurtosis statistics. Both SRL and GPA scores fell within acceptable ranges, with skewness values of -0.27 for SRL and -0.35 for GPA, and kurtosis values of 0.52 for SRL and 0.78 for GPA. This suggests that the data were approximately normally distributed.

Table 1 summarizes the descriptive statistics of SRL and academic achievement:

| Variable | N | Mean | SD | Min | Max | Skewness | Kurtosis |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Self-Regulated Learning** | 100 | 4.85 | 0.68 | 3.20 | 6.30 | -0.27 | 0.52 |
| **Academic Achievement (GPA)** | 100 | 3.15 | 0.42 | 2.40 | 3.90 | -0.35 | 0.78 |

**Inferential Statistics**

A simple linear regression analysis was conducted to examine the relationship between SRL and academic achievement. The results indicated that SRL significantly predicted students' GPA, $R^2 = 0.236$, $F(1, 98) = 30.29$, $p < .001$, suggesting that SRL accounts for approximately 23.6% of the variance in academic achievement.

The regression coefficient (B) for SRL was 0.298 ($p < .001$), indicating that for every one-point increase in SRL score, the GPA is expected to increase by approximately 0.30 points. This finding highlights a positive and significant relationship between students' self-regulation abilities and their academic performance.

Standardized beta values ($\beta = 0.486$) also confirmed the moderate to strong predictive power of SRL on academic achievement. The model residuals were checked and showed homoscedasticity, and no multicollinearity issue was present.

Table 2 presents the regression analysis results:

| **Predictor** | **B** | **SE B** | **β** | **t** | **p** |
|---|---|---|---|---|---|
| **(Constant)** | 1.662 | 0.271 | - | 6.13 | <.001 |
| **SRL Score** | 0.298 | 0.054 | 0.486 | 5.50 | <.001 |

**Additional Findings**

Further analysis was performed to examine whether SRL scores differed significantly based on gender. An independent samples t-test revealed no statistically significant difference in SRL scores between male ($M = 4.81$, $SD = 0.69$) and female students ($M = 4.89$, $SD = 0.67$), $t(98) = -0.59$, $p = .55$.

However, when examining SRL differences across age groups (14-15 years and 16-17 years), a one-way ANOVA indicated a significant difference, $F(1, 98) = 5.02$, $p = .027$. Older students (16-17 years) reported higher SRL scores ($M = 5.02$, $SD = 0.60$) compared to younger students ($M = 4.69$, $SD = 0.72$), suggesting age may play a role in the development of self-regulated learning abilities.

Additionally, a Pearson correlation analysis revealed a significant positive correlation between SRL and self-efficacy scores ($r = .51$, $p < .001$), supporting the notion that students who believe in their ability to succeed academically are more likely to engage in SRL behaviors.

Table 3 shows the comparison of SRL based on gender and age:

| **Group** | **N** | **Mean SRL** | **SD** | **t/F** | **p** |
|---|---|---|---|---|---|
| **Male** | 48 | 4.81 | 0.69 | -0.59 | .55 |
| **Female** | 52 | 4.89 | 0.67 | | |
| **14-15 years** | 50 | 4.69 | 0.72 | 5.02* | .027 |
| **16-17 years** | 50 | 5.02 | 0.60 | | |

*Significant at $p < .05$

The results suggest that SRL has a significant and positive impact on students' academic achievement, supporting prior research on the critical role of self-regulation in enhancing learning outcomes. The findings confirm that students with stronger self-regulation skills tend to perform better academically.

Moreover, the additional finding related to age suggests that SRL skills may improve with maturity, as older students demonstrated higher levels of self-regulated learning. This underscores the importance of early SRL interventions for younger students to enhance their long-term academic success.

The non-significant gender difference implies that SRL may be equally distributed between male and female students in this context, though further studies with larger and more diverse samples could offer additional insights.

Overall, these findings highlight the need for educators to integrate SRL training and cognitive-behavioral strategies into classroom instruction to optimize academic achievement, particularly for younger students.

## Discussion (مناقشة)

Interpretation of Results

The findings of this study confirm the significant role of self-regulated learning (SRL) in enhancing students' academic achievement. This is consistent with the cognitive-behavioral perspective, which emphasizes the interaction between cognitive factors (such as goal setting and self-monitoring) and behavioral factors (such as consistent learning habits) in shaping learning outcomes (Bandura, 1986). Students who demonstrated stronger SRL skills were able to manage their learning process more effectively, leading to higher academic performance.

From the lens of cognitive-behavioral theory, the positive relationship between SRL and academic achievement can be attributed to the role of self-efficacy. The data showed that students with higher SRL also reported greater self-belief in their ability to succeed, which is a core component in Bandura's model of self-regulation (Bandura, 1997). This suggests that SRL functions not only as a set of strategies but also as a mechanism to boost confidence in one's academic abilities.

Additionally, the results align with cognitive restructuring concepts within CBT, where students learn to challenge unproductive thoughts (e.g., "I can't do this") and replace them with adaptive thinking patterns (e.g., "I can improve through effort"). This cognitive shift supports students' persistence and adaptability in facing academic challenges (Harris et al., 2019).

Thus, the integration of cognitive-behavioral principles in fostering SRL is essential to promote both cognitive (metacognitive awareness) and behavioral (consistent practice) dimensions of self-regulation in students, which ultimately enhances their academic success.

Comparison with Previous Studies

The results of this study are consistent with the findings of Zimmerman and Schunk (2011), who reported that students with high SRL levels tend to outperform their peers in academic settings. Similarly, Usher and Schunk (2018) also found that low SRL correlates with poor academic outcomes, particularly among secondary school students, reinforcing the present study's conclusions.

In addition, Panadero (2017) highlighted that SRL plays a critical role in student-centered learning environments, where learners are expected to take responsibility for their progress. The current study supports this by showing that students who manage their learning processes

through SRL are more successful in navigating academic tasks autonomously.

The current study's findings are also comparable to the work of Cleary and Kitsantas (2017), who found that students rarely use self-monitoring and self-reflection strategies unless provided with explicit training. This highlights the gap between the theoretical understanding of SRL and its practical application, which this study also observed.

While previous research, such as that by Schunk and Greene (2018), demonstrated the broader benefits of SRL in fostering lifelong learning skills (e.g., problem-solving, critical thinking), the present study emphasizes its immediate impact on academic performance in a school setting.

Theoretical Implications

The findings provide empirical support for the cognitive-behavioral theory as a foundational framework for understanding and enhancing SRL. Specifically, the role of self-efficacy as a mediator between cognitive strategies and academic outcomes is strongly validated by this research, aligning with Bandura's (1997) social cognitive theory.

Moreover, this study contributes to the refinement of SRL models by suggesting that cognitive-behavioral interventions can enhance metacognitive skills such as goal setting, self-monitoring, and self-reflection. These skills are critical components in Zimmerman's cyclical model of self-regulated learning (Zimmerman, 2008).

The significant relationship between SRL and academic achievement found in this study also aligns with the motivational components highlighted in cognitive-behavioral frameworks, such as intrinsic motivation and task value, which play an important role in students' engagement and persistence (Pintrich, 2000).

Therefore, this research reinforces the idea that future models of SRL should integrate CBT techniques, such as cognitive restructuring and behavioral activation, to offer a more holistic and practical approach to developing self-regulated learners.

Practical Implications

The findings suggest that educators should consider implementing cognitive-behavioral-based interventions to improve students' SRL skills. Teachers and lecturers can incorporate activities such as guided self-monitoring, reflective journaling, and goal-setting workshops to strengthen students' self-regulation (Cleary & Zimmerman, 2012).

Educational practitioners may also design programs that foster self-efficacy, such as providing constructive feedback and encouraging students to set realistic and incremental learning goals (Schunk & DiBenedetto, 2020). These practices can help students develop the confidence needed to manage their learning more independently.

For policymakers and curriculum developers, integrating SRL training modules that draw upon cognitive-behavioral strategies into school curricula could enhance student learning outcomes, particularly in digital or hybrid learning environments where student autonomy is crucial (Zimmerman & Moylan, 2009).

Lastly, the study highlights the importance of providing continuous professional development for teachers, equipping them with CBT-based techniques to support students' development of SRL skills in everyday classroom practices (Harris et al., 2019).

## Conclusion (خاتمة)

The findings of this study demonstrate that self-regulated learning (SRL) significantly influences students' academic achievement, particularly when examined through the lens of cognitive-behavioral theory. The integration of cognitive and behavioral strategies, such as self-monitoring, goal setting, and cognitive restructuring, plays a crucial role in enhancing students' ability to manage their learning processes effectively. This suggests that SRL not only serves as an essential learning skill but also operates as a mediating factor that links cognitive-behavioral mechanisms to improved academic outcomes. The results align with previous research highlighting the importance of self-efficacy and metacognitive awareness in promoting students' autonomy and success in learning environments.

Moreover, this research underscores the necessity for educational institutions to implement targeted interventions that foster SRL skills, particularly at the secondary education level. Despite the recognized benefits of SRL, many students still lack sufficient training in applying these strategies consistently and effectively. By incorporating cognitive-behavioral approaches into classroom practices, educators can empower students to become more proactive, self-directed learners, which is increasingly vital in the context of modern, hybrid, and digital learning models. This study contributes to a deeper understanding of how SRL functions as both a psychological and educational construct that can bridge theory and practice in enhancing academic achievement.

## Acknowledgment (شكروتقدير )

The author would like to express sincere gratitude to all participants who contributed to this research, as well as to the faculty members and academic advisors who provided valuable guidance throughout the study. Special thanks are also extended to the research team and educational institutions that supported the data collection process. Without their support and cooperation, this research would not have been possible.

## Bibliography (مراجع)

American Psychological Association. (2020). Publication manual of the American Psychological Association (7th ed.).

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Prentice-Hall.

Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman.

Cleary, T. J., & Kitsantas, A. (2017). Motivation and self-regulated learning influences on middle school mathematics achievement: A structural equation modeling analysis. Journal of School Psychology, 60, 1–16. https://doi.org/10.1016/j.jsp.2016.11.001

Cleary, T. J., & Zimmerman, B. J. (2012). A cyclical self-regulatory account of student engagement: Theoretical foundations and applications. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), Handbook of research on student engagement (pp. 237–257). Springer.

Cohen, L., Manion, L., & Morrison, K. (2018). Research methods in education (8th ed.). Routledge.

Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE Publications.

Dent, A. L., & Koenka, A. C. (2016). The relation between self-regulated learning and academic achievement across childhood and adolescence: A meta-analysis. Educational Psychology Review, 28(3), 425–474.

Field, A. (2018). Discovering statistics using IBM SPSS Statistics (5th ed.). SAGE Publications.

Fitrianto, I. (2019). تنفيذ الدورة المكثفة في اللغة العربية لطلاب الكلية الجامعية الإسلامية KUIS :ماليزيا بجامعة دار السلام كونتور العام

2018 العالمية بسلانجور (Doctoral dissertation, University of Darussalam Gontor).

Fitrianto, I. (2024). Critical Reasoning Skills: Designing an Education Curriculum Relevant to Social and Economic Needs. International Journal of Post Axial: Futuristic Teaching and Learning, 245-258.

Fitrianto, I. (2024). Innovation and Technology in Arabic Language Learning in Indonesia: Trends and Implications. International Journal of Post Axial: Futuristic Teaching and Learning, 134-150.

Fitrianto, I. (2024). Strategi Guru Pai Dalam Mengatasi Kesulitan Belajar Pada Mata Pelajaran Hadis Kelas 8 MTS Ibadurrahman Subaim. IJER: Indonesian Journal of Educational Research, 356-363.

Fitrianto, I., & Abdillah, F. M. (2018). MODEL PEMBELAJARAN PROGAM PEMANTAPAN BAHASA ARAB DAN SHAHSIAH (KEMBARA) KE 4 MAHASISWA KOLEJ UNIVERSITI ISLAM ANTAR BANGSA SELANGOR (KUIS) TAHUN 2018. University of Darussalam Gontor 15-16 September 2018, 121.

Fitrianto, I., & Hamid, R. (2024). Morphosemantic Changes in the Arabic Language in the Social Media Era: A Study of Neologisms and Their Impact on Youth Communication/ التغيرات المورفوسيمانتية في اللغة العربية في عصر وسائل التواصل الاجتماعي: دراسة حول النيو لوغيزم وتأثيرها على تواصل الشباب. IJAS: International Journal of Arabic Studies, 1(1 September), 25-39.

Fitrianto, I., & Saif, A. (2024). The role of virtual reality in enhancing Experiential Learning: a comparative study of traditional and immersive learning environments. International Journal of Post Axial: Futuristic Teaching and Learning, 97-110.

Fitrianto, I., Hamid, R., & Mulalic, A. (2023). The effectiveness of the learning strategy" think, talk, write" and snowball for improving learning achievement in lessons insya'at Islamic Boarding School Arisalah. International Journal of Post Axial: Futuristic Teaching and Learning, 13-22.

Fitrianto, I., Setyawan, C. E., & Saleh, M. (2024). Utilizing Artificial Intelligence for Personalized Arabic Language Learning Plans. International Journal of Post Axial: Futuristic Teaching and Learning, 30-40.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2019). How to design and evaluate research in education (10th ed.). McGraw-Hill Education.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Cengage Learning.

Harris, K. R., Graham, S., & Adkins, M. (2019). Practice-based professional development and self-regulated strategy development for Tier 2, at-risk writers in second grade. Contemporary Educational Psychology, 56, 50–63. https://doi.org/10.1016/j.cedpsych.2018.11.004

Harris, K. R., Graham, S., MacArthur, C., Reid, R., & Mason, L. H. (2019). Self-regulated learning and academic achievement: Theoretical perspectives. Routledge.

Kline, R. B. (2016). Principles and practice of structural equation modeling (4th ed.). Guilford Press.

Pajares, F. (2002). Overview of social cognitive theory and of self-efficacy. Self-efficacy beliefs in academic settings. Retrieved from http://www.emory.edu/EDUCATION/mfp/eff.html

Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. Frontiers in Psychology, 8, 422. https://doi.org/10.3389/fpsyg.2017.00422

Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), Handbook of self-regulation (pp. 451–502). Academic Press.

Pintrich, P. R., Smith, D. A., Garcia, T., & McKeachie, W. J. (1991). A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ). National Center for Research to Improve Postsecondary Teaching and Learning.

Putri, S. A., & Widodo, H. P. (2022). Hybrid learning in the post-pandemic era: Student autonomy and challenges in digital learning environments. International Journal of Educational Research Review, 7(4), 453–467.

Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social-cognitive theory. Contemporary Educational Psychology, 60, 101832. https://doi.org/10.1016/j.cedpsych.2019.101832

Schunk, D. H., & Greene, J. A. (2018). Handbook of self-regulation of learning and performance (2nd ed.). Routledge.

Tabachnick, B. G., & Fidell, L. S. (2019). Using multivariate statistics (7th ed.). Pearson.

Usher, E. L., & Schunk, D. H. (2018). Social cognitive theoretical perspective of self-regulation. In D. H. Schunk & J. A. Greene (Eds.), Handbook of self-regulation of learning and performance (pp. 19–35). Routledge.

Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. American Educational Research Journal, 45(1), 166–183. https://doi.org/10.3102/0002831207312909.

Zimmerman, B. J., & Moylan, A. R. (2009). Self-regulation: Where metacognition and motivation intersect. In D. J. Hacker, J. Dunlosky, & A. C. Graesser (Eds.), Handbook of metacognition in education (pp. 299–315). Routledge.

Zimmerman, B. J., & Schunk, D. H. (2011). Self-regulated learning and academic achievement: Theoretical perspectives (2nd ed.). Routledge.