

ANALYSIS OF DIFFERENCES IN SELF-REGULATED LEARNING AMONG ELEMENTARY SCHOOL STUDENTS

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ABSTRACT

This study aims to examine gender differences in self-regulated learning (SRL) among elementary school students and identify variations across its core components. A quantitative approach with a comparative survey design was employed involving 60 fifth-grade students selected through total sampling. Data were collected using an SRL questionnaire and analyzed using descriptive statistics and an independent samples t-test. The results showed a significant difference in SRL between male and female students ($p < 0.05$), with female students demonstrating higher overall scores. Consistent differences were also observed across the SRL components, particularly in planning and reflection. These findings suggest that gender-related variations extend beyond overall SRL levels to specific dimensions of learning regulation. The study contributes to the limited evidence on gender-based SRL differences among Indonesian elementary school students and underscores the need for adaptive and differentiated instructional strategies to foster students' independent learning from an early age.

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INTRODUCTION

Self-regulated learning (SRL) is an essential competence in 21st-century learning that plays an important role in shaping students' learning independence from the elementary school level. Conceptually, SRL refers to an individual's ability to actively regulate the learning process through planning, monitoring, and evaluating activities to achieve predetermined learning goals. It involves the proactive management of thoughts, emotions, and behaviors to optimize learning outcomes (Zimmerman, 2010). In addition, SRL encompasses cognitive, metacognitive, motivational, and behavioral regulation that enables learners to adapt their strategies according to learning demands (Pintrich, 2000).

Developing SRL from an early age is particularly important because elementary school students are in the formative stage of establishing learning habits and self-management skills. Students with strong SRL are more likely

to demonstrate higher academic achievement, greater persistence, and better adaptability when facing increasingly complex learning challenges (Zimmerman, 2010). Furthermore, SRL contributes to the development of intrinsic motivation and metacognitive awareness, both of which are fundamental for lifelong learning (Schunk & Greene, 2017). Empirical evidence also indicates that SRL interventions implemented in primary education significantly improve academic performance by encouraging students to regulate their cognition, motivation, and learning behaviors independently (Panadero, 2017; Theobald, 2021). Therefore, strengthening SRL among elementary school students represents both a pedagogical necessity and a long-term investment in preparing adaptive and reflective learners.

Despite its importance, empirical evidence suggests that the SRL abilities of elementary school students in Indonesia have not yet developed optimally. Research has shown that Indonesian elementary students generally demonstrate SRL at a moderate level, with notable weaknesses in time management and the application of effective learning strategies (Chumdari et al., 2024). In addition, learning practices that continue to rely heavily on conventional teacher-centered approaches and limited instructional innovation hinder students from developing independent learning habits (Wartama et al., 2024). Other findings also reveal that low levels of active participation during classroom learning reduce opportunities for students to strengthen motivational control and self-regulatory skills (Firdanti et al., 2026). These findings indicate that systematic efforts are needed to foster SRL in accordance with the demands of 21st-century education.

One factor that may contribute to variations in students' SRL is gender. From the perspective of social cognitive theory, self-regulation is considered an expression of human agency, whereby individuals actively direct their thoughts, motivations, and actions through reciprocal interactions among personal factors, behaviors, and environmental influences (Bandura, 2020). Consequently, differences in personal characteristics, including gender, may influence how students organize, monitor, and evaluate their learning processes.

However, previous research has produced inconsistent findings regarding the relationship between gender and SRL. Several studies suggest that female students exhibit higher levels of SRL than male students, particularly in self-management, perseverance, and learning responsibility (Felanni, 2023). In contrast, other studies have reported no statistically significant gender differences in SRL, indicating that gender may not always be a determining factor in students' learning regulation (Anazifa et al., 2023; Putri & Handayani, 2021). These inconsistent results imply that the association between gender and SRL remains context-dependent and requires further investigation, especially within the Indonesian elementary school context.

A review of previous studies further highlights important research gaps. Anazifa et al. (2023) concluded that SRL does not significantly differ by gender, whereas Felanni (2023) reported superior SRL among female students. Astuti et al. (2024) described variations across SRL indicators among elementary school students but did not specifically examine gender-based differences in depth. Moreover, much of the existing literature has focused on secondary school or university students, limiting the generalizability of findings to younger learners. Studies that comprehensively investigate gender differences in SRL among Indonesian elementary school students remain scarce.

Accordingly, the novelty of the present study lies in its specific focus on Indonesian elementary school students, a population that has received relatively limited attention in previous SRL research. Unlike earlier studies that predominantly examined adolescents or higher education students or reported only overall SRL scores, this study investigates gender differences by analyzing multiple dimensions of SRL in the context of primary education. By examining SRL through its constituent indicators, the research seeks to provide a more comprehensive understanding of how male and female elementary school students regulate their learning processes and whether meaningful differences emerge across specific aspects of self-regulation. This approach is expected to contribute new empirical evidence that enriches the literature on SRL in Indonesia and provides practical implications for designing instructional strategies that are responsive to students' developmental characteristics.

Based on these considerations, this study aims to examine whether differences in self-regulated learning exist between male and female elementary school students and to identify the specific SRL dimensions in which such differences may occur. The findings are expected to provide a more nuanced understanding of students' self-regulation profiles and to support the development of evidence-based educational interventions that promote independent learning in primary education.

METHOD

This study employs a quantitative approach with a comparative survey design. The quantitative approach was selected because it enables the collection of numerical data that can be analyzed using objective and measurable statistical techniques (Creswell, 2014). The comparative survey design was adopted to examine and compare the level of self-regulated learning (SRL) among students based on gender differences. Through this design, the study provides an empirical description of variations in SRL between male and female students using systematic statistical procedures.

The population of this study consisted of all fifth-grade students at SDN Ragunan 07 Pagi. Considering that the population size was relatively small and entirely accessible, a saturated sampling technique (total sampling) was employed, in which all members of the population were included as research participants (Sugiyono, 2019). Consequently, every fifth-grade student at SDN Ragunan 07 Pagi participated in the study, ensuring comprehensive representation of the target population.

This research involves two variables: an independent variable and a dependent variable. The independent variable is gender, classified into two categories, namely male and female. The dependent variable is self-regulated learning (SRL), which refers to students' ability to independently plan, monitor, control, and evaluate their own learning processes. The relationship between these variables was analyzed to identify potential differences in SRL levels between male and female students.

Data were collected using a self-regulated learning questionnaire developed based on the theoretical framework proposed by Zimmerman (2010) and Pintrich (2000). The instrument consisted of 24 statement items distributed across four main indicators: learning planning (6 items), self-monitoring (6 items), self-control (6 items), and self-reflection (6 items). Examples of the indicators include setting learning goals before studying (learning planning), monitoring understanding during learning activities (self-monitoring), maintaining discipline and managing distractions while studying (self-control), and evaluating learning outcomes after completing academic tasks (self-reflection). Responses were measured using a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"), with higher scores indicating higher levels of self-regulated learning.

Prior to data collection, the questionnaire underwent psychometric evaluation to ensure its quality. Content validity was reviewed by experts in educational psychology and elementary education, while empirical validity was assessed using the Pearson Product Moment correlation. Items with correlation coefficients exceeding the critical value at the 5% significance level were considered valid. Instrument reliability was evaluated using Cronbach's Alpha coefficient, with a value greater than 0.70 indicating satisfactory internal consistency and demonstrating that the questionnaire reliably measured the SRL construct.

The collected data were analyzed quantitatively through several systematic stages. Initially, respondents' answers were coded, scored, and tabulated for analysis. Instrument quality was then evaluated through validity and reliability testing. Descriptive statistical analysis was subsequently conducted to summarize students' SRL levels using measures such as means, frequencies, percentages, and standard deviations, both overall and according to gender.

To facilitate interpretation, SRL scores were classified into three categories: **high**, **moderate**, and **low**. The categorization was determined using interval criteria based on the distribution of total questionnaire scores, where

students with scores in the upper interval were classified as having high SRL, those in the middle interval as moderate SRL, and those in the lower interval as low SRL. This categorization enabled clearer interpretation of students' self-regulated learning profiles and easier comparison between gender groups.

Before hypothesis testing, prerequisite analyses were performed, including tests of normality using the Kolmogorov–Smirnov or Shapiro–Wilk procedures and tests of homogeneity of variance. If the data met the assumptions of normality and homogeneity, differences in SRL between male and female students were analyzed using the Independent Samples *t*-test. Otherwise, the non-parametric Mann–Whitney *U* test was employed. The final stage involved interpreting the statistical findings to address the research questions and relate the results to relevant theoretical perspectives and previous empirical studies.

The hypotheses of this study were formulated to examine differences in students' self-regulated learning based on gender. The null hypothesis (H_0) states that there is no significant difference in self-regulated learning between male and female students, whereas the alternative hypothesis (H_1) states that a significant difference exists between the two groups.

RESULTS AND DISCUSSION

This research is focused on two research problem formulations, namely: (1) whether there are differences in self-regulated learning between male and female students in elementary school, and (2) in which aspects these differences emerge. Therefore, research results are presented not only based on total self-regulated learning scores but also based on its constituent aspects: planning, monitoring, cognition control, motivation control, and reflecting.

Descriptive analysis results show that female students have a higher average of self-regulated learning compared to male students. The group of male students obtained an average SRL score of 61.8 with a standard deviation of 8.75, while the group of female students obtained an average of 68.4 with a standard deviation of 8.95. The median value in the male group was 63, while the female group was 67. In addition, the minimum and maximum scores in the male group were 41 and 78, respectively, while in the female group, they were 53 and 84. These results show that, in general, female students have a tendency toward better self-regulation abilities in learning compared to male students.

Table 1. Descriptive Statistics of Self-Regulated Learning Based on Gender

Gender	N	Mean	Median	SD	Minimum	Maximum
Male	39	61,8	63	8,75	41	78
Female	21	68,4	67	8,95	53	84

Subsequently, a normality test was conducted using Shapiro-Wilk to determine the data distribution in each group. The analysis results showed a significance value of 0.731 for the male group and 0.560 for the female group. Both values are greater than 0.05; therefore, the data are declared to be normally distributed. Thus, the normality assumption in the parametric test has been met.

Table 2. Shapiro-Wilk Normality Test Results

Gender	W	p
Male	0,981	0,731
Female	0,962	0,560

In addition to the normality test, a homogeneity of variance test was also conducted using Levene's Test. The analysis results showed a significance value of 0.973 ($p > 0.05$), which means the variances of both groups are homogeneous. With the homogeneity assumption met, the analysis could proceed using the independent sample *t*-test.

Table 3. Homogeneity of Variance Test Results

Test	F	df1	df2	p
Levene's Test	0,001	1	58	0,973

The results of the independent sample t-test showed a t-value of -2.74 with a significance value of 0.008 ($p < 0.05$). These results indicate that there is a significant difference in self-regulated learning between male and female students. The mean difference between the two groups of -6.53 indicates that the SRL scores of female students are higher than those of male students. Furthermore, the Cohen's d value of -0.741 indicates an effect size in the medium to strong category. This indicates that the differences found are not only statistically significant but also have practical meaning in the context of elementary school learning. Moreover, the medium-to-strong effect size suggests that the observed difference is substantial enough to have practical implications for classroom instruction, indicating that targeted efforts to strengthen self-regulated learning particularly among students with lower SRL levels may contribute meaningfully to improving learning independence and academic outcomes.

Table 4. Independent Sample t-Test Results

Variable	t	df	p	Mean Difference	Cohen's d
Self-Regulated Learning	-2,74	58	0,008	-6,53	-0,741

The hypothesis test results show that the difference in self-regulated learning (SRL) between male and female students is not only statistically significant but also consistent with the trends seen in the descriptive analysis. Thus, it can be concluded that gender is one of the factors related to variations in self-regulation abilities in learning among elementary school students.

Furthermore, to answer the second research problem regarding which aspects these differences emerge, a more detailed analysis was conducted based on SRL indicators including planning, monitoring, cognition control, motivation control, and reflecting. The recapitulation results show that female students tend to obtain higher scores in almost all aspects of SRL compared to male students, especially in the planning and reflection aspects. In the planning aspect, female students are more consistent in setting learning goals and arranging steps before working on assignments, while some male students still show a tendency to be less structured in starting tasks.

In the monitoring aspect, differences are also visible in students' habits of re-checking work results and evaluating comprehension. Female students are more active in re-checking completed assignments, while in male students, a tendency to directly finish tasks without conducting a deep evaluation was still found. A similar pattern also appears in the cognition control aspect, where female students are more flexible in trying various problem-solving strategies, while male students tend to be satisfied more quickly with a single method deemed sufficient.

Meanwhile, in the motivation control aspect, female students show a better ability to maintain focus and manage frustration when facing learning difficulties. They more frequently give positive encouragement to themselves to persist in completing tasks. As for the reflection aspect, the difference is quite clear, where female students are more accustomed to evaluating errors and arranging improvement plans for the next assignment, while some male students have not consistently reflected on their learning results.

Overall, these findings indicate that the difference in SRL between male and female students does not only occur at a general level but also appears consistently across the five main aspects of SRL. This pattern shows that female students tend to have more developed self-regulation in terms of planning, monitoring, cognitive strategies, motivation, and reflection compared to male students. Thus, the results of this study provide a more specific overview of the characteristics of SRL differences based on gender in elementary school, which can serve as a basis for designing more adaptive and differentiated learning. These findings also suggest that interventions aimed at strengthening planning, monitoring, and reflective practices may provide meaningful benefits in improving students' self-regulated learning regardless of gender.

The results of this study show that there are differences in self-regulated learning (SRL) between male and female students, where female students have higher and more consistent SRL scores in almost all aspects, especially

planning and reflecting. This finding is in line with several recent studies showing that although not always consistent, females tend to show a stronger tendency toward SRL, particularly in metacognitive and evaluative aspects.

Research by Guo et al. (2023) found that while generally there are no large differences in SRL between males and females, females tend to have slightly better academic performance and self-regulation in several learning contexts, specifically those involving persistence and self-regulation in language learning. This supports the findings of this study that females are superior in the reflection and monitoring aspects.

However, the results of this study differ slightly from several other studies in the context of elementary school students showing that SRL is not always significantly influenced by gender. Research on elementary school students in Indonesia shows that SRL is more influenced by learning strategies and the learning environment compared to gender, so the difference between males and females is not always statistically significant (Astuti, 2024). This indicates that gender is not the sole determinant in the development of SRL but rather interacts with pedagogical factors and students' learning experiences.

This finding is also supported by literature studies showing that SRL is strongly influenced by classroom interaction, teacher support, and structured learning experiences. In the elementary school context, females often exhibit learning behaviors that are more organized and compliant with instructions, which indirectly increases their planning and monitoring abilities (Ruig et al., 2023).

The finding that female students have higher self-regulated learning (SRL) compared to male students can be explained through several theoretical and empirical perspectives. First, from the aspect of social characteristics and learning habits, various studies show that female students tend to be more thorough, structured, and reflective in the learning process, which contributes to the strengthening of planning and reflection aspects in SRL. This is in line with a number of findings that SRL develops through the regularity of learning behavior, including consistent planning and self-evaluation (Zimmerman, 2010; Schunk & Greene, 2017). Second, from a metacognitive development perspective, SRL is closely related to monitoring and self-evaluation abilities. Research on elementary school-aged children shows that females tend to have slightly earlier metacognition development compared to males, especially in monitoring and cognitive control abilities (Linden et al., 2021), so this may explain their superiority in the reflection and monitoring aspects.

Third, classroom environment factors and teacher expectations also play an important role in shaping students' SRL. Multilevel studies on elementary school students show that teacher practices in encouraging student self-regulation are related to the development of students' metacognition and learning motivation, although the results are highly dependent on the quality of implementation in the classroom (Heirweg et al., 2020). In this context, teacher expectations regarding thoroughness and neatness are often directed more toward female students, which indirectly reinforces their self-regulation habits in the long term.

Thus, the difference in SRL based on gender in this study cannot be understood solely as a biological difference, but as the result of complex interactions between metacognitive development, learning experiences, and the social and pedagogical environment that shape students' self-regulation habits since elementary school age.

The results of this study have several important implications for learning practices in elementary schools. Pedagogically, teachers need to provide more directed scaffolding support, especially to male students in the aspects of planning and reflection. This scaffolding can be realized through the use of learning step checklists, daily reflection journals, and procedural guides that help students organize and evaluate their learning process more systematically. This strategy is in line with self-regulated learning principles which emphasize the importance of external support in developing self-regulation abilities gradually until students become independent. Considering the medium-to-strong effect size obtained in this study, these pedagogical interventions are expected to produce meaningful improvements in students' learning independence and contribute to reducing disparities in self-regulated learning.

In the context of differentiated learning, these findings show that differences in self-regulated learning do not only occur at the level of general ability but also in specific aspects such as planning, monitoring, cognitive control, motivation, and reflection. Therefore, teachers need to design learning that not only differentiates content or difficulty levels but also considers students' self-regulation needs. This approach allows each student to gain a learning experience appropriate to their SRL profile, making the learning process more inclusive and effective.

Furthermore, the results of this study confirm the importance of strengthening self-regulated learning since elementary school age. Aspects of monitoring and self-evaluation need to be explicitly trained through reflective activities, structured feedback, and the habit of re-checking work results. This becomes important especially because these aspects in this study showed quite clear variations between groups of students. With consistent habituation, SRL can develop as a long-term learning skill that supports students' academic success.

Finally, this study also opens space for further research to explore other factors influencing variations in self-regulated learning, such as learning styles, family support, intrinsic motivation, and the quality of teacher-student interaction. A more comprehensive study is needed to understand SRL as a complex and multidimensional construct, so that the educational interventions developed can be more targeted and based on strong empirical evidence.

This study also has several limitations that should be acknowledged. First, the relatively small sample size and the focus on students from only one elementary school may limit the generalizability of the findings to broader populations. Second, the use of a self-report questionnaire may be subject to response bias because students' answers depend on their own perceptions and honesty. Therefore, future studies are recommended to include larger and more diverse samples, involve multiple schools from different regions, and examine additional variables that may influence self-regulated learning in order to obtain a more comprehensive understanding of this construct.

CONCLUSION

Based on the results of the research and the discussion conducted, it can be concluded that there are differences in self-regulated learning (SRL) between male and female students in elementary school. Female students show a higher level of SRL compared to male students, both based on the total score and in each aspect of SRL, which includes planning, monitoring, cognition control, motivation control, and reflecting. These differences were proven to be statistically significant based on the results of the independent sample *t*-test.

Furthermore, SRL differences do not only occur at a general level but also appear consistently in specific aspects. Female students tend to excel in the ability to plan learning, monitor the learning process, manage cognitive strategies, maintain motivation, and reflect on learning results. Meanwhile, male students show a lower tendency, especially in the planning and reflection aspects, although individual variations still exist within each group.

Thus, it can be concluded that gender is related to variations in the self-regulated learning of elementary school students; however, these differences cannot be understood as a sole factor, but rather as the result of interactions between individual characteristics, metacognitive development, and learning experiences within the school environment. These findings reinforce the importance of early SRL development through structured, adaptive, and student-needs-based learning.

From a practical perspective, teachers and schools are encouraged to integrate instructional strategies that explicitly promote self-regulated learning, such as goal-setting activities, learning journals, self-monitoring checklists, reflective exercises, and regular formative feedback. Particular attention should be given to strengthening planning and reflection skills among students who demonstrate lower levels of SRL, while maintaining inclusive learning practices that support the development of all learners regardless of gender.

For future research, it is recommended to involve larger and more diverse samples from multiple schools and regions to enhance the generalizability of the findings. Further studies may also examine additional factors influencing self-regulated learning, such as parental support, socioeconomic background, classroom climate, teacher practices,

and learning motivation, as well as employ longitudinal or mixed-method approaches to provide a more comprehensive understanding of SRL development among elementary school students.

REFERENCES

- Anazifa, R. D., Limiansi, K., & Pratama, A. T. (2023). *Students ' Self -Regulated Learning based on Gender and Disciplinary Differences during Online Learning*. 7(1), 39–45.
- Astuti, A. D. (2024). Self-regulated Learning for Elementary School Students' Mathematics Learning Using Think Pair Share. *Tunas: Jurnal Pendidikan Guru Sekolah Dasar*, 10, 60–64.
- Astuti, E. F., Wati, U. A., & Murti, R. C. (2024). *Categorization of Self-regulated Learning in Pancasila Education Learning at Elementary School*. 8(4), 695–707.
- Bandura, A. (2020). Social Cognitive Theory: An Agentic Perspective. *Psychology: The Journal of the Hellenic Psychological Society*, 12, 313–333. <https://doi.org/https://doi.org/10.1177/1745691617699280>
- Chumdari, Ragil, I., Atmojo, W., Adi, F. P., & Saputri, D. Y. (2024). *Analisis tingkat self regulated learning di Sekolah Dasar Indonesia Bangkok*. 12, 142–147. <https://doi.org/https://doi.org/10.20961/jpd.v12i2.94880>
- Dale H. Schunk, Jeffrey A. Greene, D. H. S. (2017). *Handbook of Self-Regulation of Learning and Performance* (2nd Editio). Routledge. <https://doi.org/https://doi.org/10.4324/9781315697048>
- Felanni, C. R. (2023). Differences In Self-Regulated Learning Among. *International Journal of Trends in Global Psychological Science and Education*, 1(1), 28–33.
- Firdanti, Viola Anistya ; Fitri, Ayu; Widiastuti, H. (2026). 3 1,2,3. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, 11, 216–229. <https://doi.org/https://doi.org/10.23969/jp.v11i02.45019>
- Guo, W., Bai, B., Zang, F., Wang, I., & Song, H. (2023). *Influences of motivation and grit on students ' self-regulated learning and English learning achievement: A comparison between male and female students*. 114. <https://doi.org/https://doi.org/10.1016/j.system.2023.103018>
- Heirweg, S., Smul, M. De, Merchie, E., Devos, G., & Hilde Van Keer. (2020). Do you reap what you sow? The relationship between primary school students' self-regulated learning and student, teacher, and school determinants. *School Effectiveness and School Improvement*, 32, 118–140. <https://doi.org/https://doi.org/10.1080/09243453.2020.1797829>
- Linden, J. Van Der, Schilt-mol, T. Van, & Nieuwenhuis, L. (2021). *Learning for a Summative Assessment : The Relationship between Students ' Academic Achievement and Self-Regulated Learning*. 351–367. <https://doi.org/10.4236/jss.2021.910025>
- Panadero, E. (2017). *A Review of Self-regulated Learning : Six Models and Four Directions for Research*. 8(April), 1–28. <https://doi.org/10.3389/fpsyg.2017.00422>
- Pintrich, P. R. (2000). The Role of Goal Orientation in Self-Regulated Learning. *Handbook of Self-Regulation*, 451–502. <https://doi.org/10.1016/b978-012109890-2/50043-3>
- Putri, R. A., & Handayani, S. L. (2021). *Jurnal basicedu*. 5(4), 2541–2549.
- Ruig, N. J. De, Jong, P. F. De, & Zee, M. (2023). *Stimulating Elementary School Students ' Self-Regulated Learning Through High-Quality Interactions and Relationships : A Narrative Review*. 1–34.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, kualitatif, dan R&D*.
- Theobald, M. (2021). Self-regulated learning training programs enhance university students ' academic performance , self-regulated learning strategies , and motivation : A meta-analysis. *Contemporary Educational Psychology*, 66(May), 101976. <https://doi.org/10.1016/j.cedpsych.2021.101976>
- Wartama, I. K. E., Ardana, I. M., & Suarni, N. K. (2024). *Self Regulated Learning dan Hasil Belajar IPA Siswa Kelas V SD dengan Model Pembelajaran Numbered Head Together*. 7, 198–211.

- Zimmerman, B. j. (2010). Becoming a Self-Regulated Learner : An Overview Becoming a Self-Regulated Learner : An Overview. *Theory Into Practice*, 5841(2002), 64–70. <https://doi.org/10.1207/s15430421tip4102>
- Anazifa, R. D., Limiansi, K., & Pratama, A. T. (2023). *Students ' Self -Regulated Learning based on Gender and Disciplinary Differences during Online Learning*. 7(1), 39–45.
- Astuti, A. D. (2024). Self-regulated Learning for Elementary School Students' Mathematics Learning Using Think Pair Share. *Tunas: Jurnal Pendidikan Guru Sekolah Dasar*, 10, 60–64.
- Astuti, E. F., Wati, U. A., & Murti, R. C. (2024). *Categorization of Self-regulated Learning in Pancasila Education Learning at Elementary School*. 8(4), 695–707.
- Bandura, A. (2020). Social Cognitive Theory: An Agentic Perspective. *Psychology: The Journal of the Hellenic Psychological Society*, 12, 313–333. <https://doi.org/https://doi.org/10.1177/1745691617699280>
- Chumdari, Ragil, I., Atmojo, W., Adi, F. P., & Saputri, D. Y. (2024). *Analisis tingkat self regulated learning di Sekolah Dasar Indonesia Bangkok*. 12, 142–147. <https://doi.org/https://doi.org/10.20961/jpd.v12i2.94880>
- Dale H. Schunk, Jeffrey A. Greene, D. H. S. (2017). *Handbook of Self-Regulation of Learning and Performance* (2nd Editio). Routledge. <https://doi.org/https://doi.org/10.4324/9781315697048>
- Felanni, C. R. (2023). DIFFERENCES IN SELF-REGULATED LEARNING AMONG. *International Journal of Trends in Global Psychological Science and Education*, 1(1), 28–33.
- Firdanti, Viola Anistya ; Fitri, Ayu; Widiastuti, H. (2026). 3 1,2,3. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, 11, 216–229. <https://doi.org/https://doi.org/10.23969/jp.v11i02.45019>
- Guo, W., Bai, B., Zang, F., Wang, I., & Song, H. (2023). *Influences of motivation and grit on students' self-regulated learning and English learning achievement: A comparison between male and female students*. 114. <https://doi.org/https://doi.org/10.1016/j.system.2023.103018>
- Heirweg, S., Smul, M. De, Merchie, E., Devos, G., & Hilde Van Keer. (2020). Do you reap what you sow? The relationship between primary school students' self-regulated learning and student, teacher, and school determinants. *School Effectiveness and School Improvement*, 32, 118–140. <https://doi.org/https://doi.org/10.1080/09243453.2020.1797829>
- Linden, J. Van Der, Schilt-mol, T. Van, & Nieuwenhuis, L. (2021). *Learning for a Summative Assessment : The Relationship between Students ' Academic Achievement and Self-Regulated Learning*. 351–367. <https://doi.org/10.4236/jss.2021.910025>
- Panadero, E. (2017). *A Review of Self-regulated Learning : Six Models and Four Directions for Research*. 8(April), 1–28. <https://doi.org/10.3389/fpsyg.2017.00422>
- Pintrich, P. R. (2000). The Role of Goal Orientation in Self-Regulated Learning. *Handbook of Self-Regulation*, 451–502. <https://doi.org/10.1016/b978-012109890-2/50043-3>
- Putri, R. A., & Handayani, S. L. (2021). *Jurnal basicedu*. 5(4), 2541–2549.
- Ruig, N. J. De, Jong, P. F. De, & Zee, M. (2023). *Stimulating Elementary School Students ' Self-Regulated Learning Through High-Quality Interactions and Relationships : A Narrative Review*. 1–34.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, kualitatif, dan R&D*.
- Theobald, M. (2021). Self-regulated learning training programs enhance university students ' academic performance , self-regulated learning strategies , and motivation : A meta-analysis. *Contemporary Educational Psychology*, 66(May), 101976. <https://doi.org/10.1016/j.cedpsych.2021.101976>
- Wartama, I. K. E., Ardana, I. M., & Suarni, N. K. (2024). *Self Regulated Learning dan Hasil Belajar IPA Siswa Kelas V SD dengan Model Pembelajaran Numbered Head Together*. 7, 198–211.
- Zimmerman, B. j. (2010). Becoming a Self-Regulated Learner : An Overview Becoming a Self-Regulated Learner : An Overview. *Theory Into Practice*, 5841(2002), 64–70. <https://doi.org/10.1207/s15430421tip4102>