

Research Paper

## The Effectiveness of Teaching Self-regulated Learning Strategies Regarding Discipline and Academic Self-esteem of Second Grade Elementary School Students in Babol

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### ABSTRACT

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Self-regulated Learning Strategies, Discipline, Academic Self-esteem, Second Grade



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**Background and Objectives:** The aim of the current research was to investigate the effectiveness of teaching self-regulated learning strategies on self-organization and academic self-esteem of second-grade elementary school students in the city of Babol.

**Methodology:** This study was applied in terms of objective and quasi-experimental in terms of method, employing a pre-test and post-test design with a control group. The statistical population consisted of all second-grade elementary school students in the city of Babol in the academic year 2023-2024, totaling 7654 individuals. Due to the quasi-experimental nature of the research, a total of 80 participants (40 girls - 20 in the experimental group and 20 in the control group, and 40 boys - 20 in the experimental group and 20 in the control group) were selected using multi-stage cluster random sampling as the sample. Data collection was conducted using the Academic Self-Regulation Questionnaire (SRQ-A) with 31 questions and the Academic self-esteem Questionnaire by Chong and Kemble (2009) with 14 questions. The face and content validity of the instruments were confirmed by experts, and their reliability was calculated using Cronbach's alpha coefficient, yielding 0.93 for the Academic Self-Regulation Questionnaire and 0.88 for the Academic self-esteem Questionnaire, which are statistically acceptable. Data analysis was performed using Multivariate Analysis of Covariance (MANCOVA) and Analysis of Covariance (ANCOVA).

**Results:** The research findings indicated that self-regulated learning strategies had a significant and positive impact on the self-organization and academic self-esteem of second-grade elementary school students in Babol.

**Conclusion:** It is recommended that teachers design their teaching methods in a way that provides ample opportunities for connecting lessons to real-life situations.

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## Introduction

Training in self-regulated learning strategies is recognized as an effective tool in improving individuals' organization skills (Ibrahimi & Taher, 2018). This type of training enables individuals to better understand themselves and find suitable solutions for managing their time, motivation, and learning strategies. Furthermore, the positive skills acquired from this training result in a significant improvement in individuals' academic performance and progress (Javadi et al., 2016). However, to achieve desired goals, it is important for these strategies to be practiced correctly and implemented in daily life. Self-regulation skill is one of the self-management skills essential for social development, encompassing all conscious and unconscious efforts of individuals to regulate their states or functions (Su & Wong, 2024). This skill enables individuals to regulate their thoughts and feelings according to time and situation. Additionally, it is an influential component in improving the academic standards of society, leading individuals to strive for higher and more learning goals regularly. Studies on the characteristics of self-regulated individuals indicate that these individuals are self-motivated in learning; they set realistic academic goals for themselves, use effective strategies to achieve their goals, modify or change strategies when necessary, strive to optimize available resources such as time, place, peers, and supplementary resources like films, videos, and computers, and constantly seek to create and select environments that enhance learning (Javadi et al., 2016). Self-regulated learning strategies refer to abilities in gaining control over physical functions, managing emotions, and maintaining attention and focus, which are growth-based and evident in all aspects of human behavior (So & Wang, 2024). Self-regulated learning is one of the effective strategies to enhance self-discipline and reduce academic procrastination. Given the importance of these skills in academic success, outlining and introducing them is the first step in improving self-discipline. By outlining the problem, students will be able to identify their

weaknesses and needs, and find appropriate solutions to address them. Furthermore, articulating the unknown and ambiguous aspects of the problem helps students reconsider their thinking patterns and achieve greater academic progress. This action helps them view a problem from various perspectives and easily find logical and effective solutions. In general, teaching self-regulated learning strategies can greatly assist in enhancing academic self-discipline. Since these skills are important in all educational and professional fields, measuring and enhancing them is of particular importance. Self-regulated learning strategies include skills and methods that help individuals have more control over their learning and progress. This can improve their self-discipline in studies (Ha et al., 2023). On the other hand, self-discipline is a capacity to regulate thoughts and emotions governing individual behavior. According to Zahidi (2023), academic self-discipline is actively engaging in motivational, cognitive, and behavioral participation in the learning process. In fact, he believes that self-disciplined learners are those who actively engage in motivational, cognitive, and behavioral processes in their learning process. Such learners personally initiate efforts to acquire knowledge and skills, relying less on teachers, parents, or other educational factors (Badaghi & Sheikh-al-Eslami, 2020). On the other hand, academic procrastination is almost the opposite of academic self-discipline. Academic procrastination includes high expectations for academic achievements, expecting teachers to adjust themselves to the learner, and scoring them, as well as reducing personal responsibility and individual effort to achieve results and grades (Hamidi, 2020). Academic procrastination, in addition to high expectations, includes reduced personal responsibility and individual efforts to achieve results and grades. Research has shown that academic procrastination, in addition to declining institutional rankings, has negative consequences such as academic dishonesty, negligence, and other academic misbehaviors for learners (Mahbod & Fuladchang, 2018). Moreover, students with perfectionistic beliefs experience high academic stress and exam anxiety (Zarei, 2022). Therefore, it is necessary to reduce academic procrastination in students using strategies such as self-regulated

learning. Pirani et al. (2023) conducted a study entitled "The Effectiveness of Self-Regulated Learning Strategies and Academic Motivation on Students' Satisfaction with Education: A Study on Female High School Students in Ilam" on 72 female high school students in Ilam. They found that the instruction of self-regulated learning strategies and academic motivation has a positive and significant effect on students' satisfaction with their education. Ghorbani et al. (2023) in their research titled "The Effectiveness of Metacognitive Strategies Instruction on Cognitive Self-Awareness and Self-Regulation of Students with Learning Disabilities" conducted on 30 students with learning disabilities in Ahvaz, found that metacognitive strategies instruction significantly increases cognitive self-awareness and self-regulation among students with learning disabilities. Rostami Matik (2023) in a study titled "The Effectiveness of Cognitive and Metacognitive Strategies Instruction on Academic Self-Efficacy and Self-Regulation of High School Students in Tehran" conducted on 30 high school students in Tehran, found that instruction in cognitive and metacognitive strategies of learning has been effective in enhancing academic self-efficacy and self-regulation among students, and also the instruction of cognitive and metacognitive learning strategies has had a significant effect on the dimensions of academic self-efficacy and self-regulation in students. Yang et al. (2024) in a study titled "Developing Self-Regulated Learning Strategies of Students to Facilitate Vocabulary Development in a Digital Game-Based Learning Environment" found that digital game-based learning is beneficial for self-regulated learning strategies and vocabulary development among students with both high and low proficiency. It encouraged low-proficiency students to develop cognitive, metacognitive, and resource management aspects of self-regulated learning strategies. Halt et al. (2024) in their research titled "Academic Helplessness among Pharmacy Students in the Arab World: A Multinational Exploratory Study" found that students reported favorable attitudes in four areas: reward for effort, customer orientation, customer service expectations, and general academic helplessness. They reported an opposing attitude in the area of avoiding responsibility. Regarding grade bargaining, three

aspects of attitude were different. Only three factors (professionalism, GPA, and academic year) had a significant negative relationship with academic helplessness. Academic helplessness scores among pharmacy students in the Arab world were high and negatively correlated with professional perceptions. Khalefa et al. (2023) in a study titled "The Effectiveness of Self-Regulated Learning Strategies Program in Reducing Academic Helplessness among Female Students" found that the self-regulated learning strategies program significantly reduced academic helplessness among female students. Ha et al. (2023) in their research titled "Self-Regulated Learning Strategies and Academic Achievement in South Korean Sixth Grade Students: A Hierarchical Linear Modeling Analysis" found a positive effect of self-regulated learning strategies on academic achievement among students. Additionally, metacognitive and effort regulation positively predicted both literacy and mathematics achievement within and across schools. Cheng et al. (2023) in a study titled "The Relationship between Self-Efficacy Beliefs and Self-Regulated Learning Strategies in Learning English as a Second Language" found a significant relationship between self-efficacy beliefs, self-regulated learning strategies, and English language proficiency among participants. They suggested that self-regulated learning instruction should be incorporated by English language instructors in developing self-regulated learners.

Instruction in self-regulated learning strategies can greatly contribute to enhancing self-discipline and academic performance. This type of instruction increases learning by controlling conditions and reduces passivity in learning, generally leading to task engagement. Therefore, considering the presented information, the main question of the present study is: Does teaching self-regulated learning strategies affect self-regulation and academic self-esteem of elementary school students in Babol?

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## **Methodology:**

Being conducted in early 2023, the aim of the present study was to determine the effectiveness of teaching self-regulated learning strategies on self-regulation and academic self-esteem of elementary school students in the city of Babol. This research was considered practical in terms of objective and quasi-experimental in terms of method, with a pre-test and post-test design with a control group. The statistical population consisted of all elementary school students in the city of Babol in the academic year 2023-2024, totaling 7654 individuals. Due to the quasi-experimental nature of the research, a sample of 80 individuals (40 girls - 20 in the experimental group and 20 in the control group, and 40 boys - 20 in the experimental group and 20 in the control group) were selected using multi-stage cluster random sampling as the statistical sample. Data were collected using the Academic Self-Regulation Questionnaire (SRQ-A) with 31 questions and 4 dimensions (external regulation, introjected regulation, identified regulation, and intrinsic motivation) and the Academic self-esteem Questionnaire by Chong and Kemble (2009) with 14 questions and 2 dimensions (externalized responsibility and side-by-side right). The face and content validity of the instruments were confirmed by experts, and their reliability was calculated using Cronbach's alpha coefficient, yielding 0.93 for the Academic Self-Regulation Questionnaire and 0.88 for the Academic self-esteem Questionnaire, which are statistically acceptable. Descriptive statistics such as frequency, percentage, charts, tables, mean, and standard deviation were used for data analysis in the descriptive statistics section, and inferential statistics including Multivariate Analysis of Covariance (MANCOVA) and Analysis of Covariance (ANCOVA) were used in the inferential statistics section. The researcher analyzed the data obtained from the questionnaire after extraction and classification using SPSS22 software.

## Results:

Considering the data taken from the sample of the study and pointing to the research hypothesis, the following results are given in the following tables.

Table 1. the comparison of the mean and standard deviation of the scores of self-organization and academic self-efficacy of students in the experimental and control groups for both the pretest and posttest

Variable	Group	Pretest Mean	Pretest Standard Deviation	Posttest Mean	Posttest Standard Deviation	P-value
Self-Organization	Experimental	2.26	77.5	85%	34.29	99.5
	Control	49.25	54.6		98.23	94.6
Academic Self-Efficacy	Experimental	41.27	19.5	88%	92.27	33.5
	Control	09.26	36.5		72.27	81.5

Based on the data in Table 1, the difference between the mean scores of self-organization of students in the self-regulated learning instruction group (54.9) was higher than the mean scores of the conventional instruction group (85.0). The difference between the mean scores of academic self-efficacy of students in the self-regulated learning instruction group (64.19) was higher than the mean scores of the conventional instruction group (88.0). Therefore, it can be inferred that there was a significant difference in self-organization and self-directed learning between the two groups of students (self-regulated learning instruction and conventional instruction). This is evidenced by the statistically significant differences in the mean scores of the two groups in the posttest (after the implementation of self-regulated learning instruction). Hence, it can be argued that the experimental group, which was under the influence of self-regulated learning instruction, experienced changes in their posttest scores compared to the pretest.

Table 2. Central indices (mean and median), dispersion (standard deviation), minimum, and maximum scores of the self-regulation and self-directed learning components in the experimental and control groups

Variable	Group	Mean	Median	Standard Deviation	Minimum	Maximum
Self-regulation	Experimental	23.6	6	72.2	1	12
	Control	41.4	4	46.1	2	7
Self-efficacy	Experimental	35.69	67	10.6	60	87
	Control	94.62	65	73.7	48	71

Based on Table 2, in the experimental group, the mean of the intrinsic belief component is 48.11 with a standard deviation of 55.3, while in the control group, the mean is 41.10 with a standard deviation of 67.2. In the experimental group, the mean of the increasing belief component is 88.8 with a standard deviation of 83.1, whereas in the control group, the mean is 11.7 with a standard deviation of 73.2. For the self-management component, the mean in the experimental group is 23.6 with a standard deviation of 72.2, and in the control group, it is 41.4 with a standard deviation of 46.1. Regarding the learning motivation component, the mean in the experimental group is 83.0 with a standard deviation of 39.0, while in the control group, it is 41.0 with a standard deviation of 50.0. Lastly, for the self-control component, the mean in the experimental group is 35.69 with a standard deviation of 10.6, and in the control group, it is 94.62 with a standard deviation of 73.7. Considering the hypothesis of the study, the following analysis is provided.

**Hypothesis 1:** The self-regulation strategies model positively and significantly influences students' level of self-organization.

Table 3. the independent t-test between the two groups of students (those taught self-regulation strategies versus those taught with conventional teaching methods) in terms of the level of student self-organization.

Teaching Method	Sample Size	Mean	Standard Deviation	Degrees of Freedom	t-value	Significance Level
Self-Regulation	20	13.24	3.13	96	2.12	0.03
Conventional	20	11.53	2.26			



As Table 3 indicates, the calculated t-value is 2.12, with a significance level of 0.03 ( $p < 0.03$ ). This suggests a significant difference in the level of self-regulation between students taught with self-regulation strategies and those taught with conventional methods. Therefore, it can be concluded that the overall mean score of self-regulation levels for students in the self-regulation strategy group (13.24) is higher than the overall mean score of self-regulation levels for students in the conventional teaching group (11.53).

**Hypothesis 2:** The self-regulated learning strategies pattern has a positive and significant effect on the level of learning self-regulation of students. To analyze the second hypothesis, the following table is given.

Table 4. Results of independent t-test for post-test scores of self-regulation in experimental and control groups

Variable	Group	Mean	Standard Deviation	Levene's Test (F-value)	Difference in Means	Degrees of Freedom	t-value	Significance Level
Self-Regulation	Experimental	23.6	7.32	7.02	11.0	82.1	32	0.02
	Control	41.4	4.61					

Based on the results in Table 4, the mean scores of the experimental group are 1.82 points higher than the mean scores of the control group. This difference is statistically significant at the level of  $p < 0.05$ , indicating that the use of self-regulation strategies has positively and significantly increased the performance of the learners.

### Discussion and Conclusion:

In a meaningful sense, teaching self-regulated learning strategies has resulted in increased academic self-regulation and decreased academic procrastination among students. Additionally, teaching self-regulated learning strategies has a greater

impact on students' academic self-regulation. This finding aligns with the results of various studies, such as those by Qorbanai et al. (2023), which demonstrated that teaching metacognitive strategies significantly increased self-regulation in students with learning disabilities; Zaregham-Hajebi and Ghahramani (1398), which showed that teaching self-regulated learning strategies has a positive and significant effect on motivation for progress; Khalefe et al. (2023), which found that a self-regulated learning-based educational program significantly reduced academic procrastination among female students; Ha et al. (2023), which indicated a positive effect of self-regulated learning strategies on students' academic progress; Cheng et al. (2023), which revealed a significant positive relationship between self-regulated learning strategies and academic performance in online higher education; and Fang et al. (2023), which demonstrated that a concept map-based self-regulated learning approach enhances students' self-efficacy and self-regulation. In explaining this finding that teaching self-regulated learning strategies has a greater impact on academic self-regulation, it can be said that self-regulated learning is an active and organized process in which learners select learning goals, then attempt to regulate, control, and monitor their cognition, motivation, and behavior, thereby improving their academic self-regulation. Moreover, individuals who are self-regulated will have a positive evaluation of their abilities through the use of cognitive and metacognitive strategies, leading them to effectively influence their environment or achieve their goals based on this positive self-assessment.

Based on the findings of the main hypothesis of the study, it is suggested that: administrators and officials in the education sector organize in-service training courses to familiarize teachers with self-regulated learning strategies, and create the necessary infrastructure for teaching these strategies in schools. This is because students do not naturally use self-regulated learning strategies unless they are taught these strategies. Training in self-regulated learning strategies should be given special attention in educational environments to promote overall progress of students. Academic self-regulation strategies should be taught to students and

educators through training courses to facilitate greater academic success. Education authorities and managers should prioritize educational programs on self-regulated learning strategies in schools and incorporate these programs into their agenda. Practical workshops should be organized to train competent instructors for implementing programs on self-regulated learning strategies. Information sessions should be held for students or provided through various means of communication to educate them that they should not always rely on others and should take responsibility for their own actions, striving to achieve their goals.

## References:

- Bodaghi, A., & Sheikh-Al-Islami, R. (2020). The effectiveness of teaching self-determination skills on academic self-regulation and psychological resilience of students. *Curriculum Planning Journal*, 10(1), 300-321.
- Ha, C., Roehrig, A. D., & Zhang, Q. (2023). Self-regulated learning strategies and academic achievement in South Korean 6th-graders: A two-level hierarchical linear modeling analysis. *Plos one*, 18(4), e0284385.
- Halat, D. H., Al-Jumaili, A. A., Ahmed, K. K., Rahal, M., Hamad, A., Darwish, R. M., ... & Alsharif, N. Z. (2024). Academic Entitlement Among Pharmacy Students in the Arab World: A Multi-National Exploratory Study. *American Journal of Pharmaceutical Education*, 88(2), 100640.
- Hamidi, A. (2020). Investigating the effect of perception of academic dishonesty, attitude towards academic dishonesty, personality values, and academic self-efficacy on academic dishonesty among doctoral students at Bu-Ali Sina University. Master's thesis, Payame Noor University, Kermanshah Center.
- Ibrahimi, F., & Taher, M. (2018). The effect of teaching self-regulation skills on social skills and executive functions of preschool children with mild intellectual disabilities. *Exceptional Individuals Psychology Quarterly*, 8(32), 101-125.
- Javadi, V., Khamesan, A., & Rastgoo Moghadam, M. (2016). The mediating role of self-regulation in the relationship between thinking styles and exam anxiety among students at Birjand University. *Cognitive Psychology Quarterly*, 4(4), 11-21.
- Khalefa, S. M. (2023). The Effectiveness of Training program Based on Self-regulated Learning Strategies in Reducing Academic Entitlement among Female University Students. *التربية (الأزهر): مجلة علمية محكمة للبحوث التربوية والنفسية والاجتماعية*, ٤٢ (١٩٨), ٢٧٩-٣٢٦.
- Mahbod, M., & Fooladchang, M. (2018). The relationship between parental overinvolvement and non-normative academic behavior in children. *Psychology Journal*, 21(4), 428-443.

- Qorbanai Valikchali, M., Ghorbani Valikchali, K., & Zaraati Rokni, M. (2014). Self-regulated learning strategies and academic motivation. Sari: Alim-e-Noor Publications.
- Pirani, A., Yarahmadi, Y., Ahmadian, H., & Pirani, Z. (2023). The effectiveness of teaching self-regulated learning strategies and academic motivation on satisfaction with education among female high school students in Ilam. *Journal of Educational and Learning Research*, 18(74), 25-46.
- Rostami Matik, S. (2023). The effectiveness of teaching cognitive and metacognitive strategies on academic self-efficacy and self-regulation of high school students in Tehran. *First International Conference on Counseling, Social Work, and Education with a Future Perspective*, Bushehr.
- Xu, J., & Wang, Y. (2024). The impact of academic buoyancy and emotions on university students' self-regulated learning strategies in L2 writing classrooms. *Reading and Writing*, 37(1), 49-67.
- Yang, Y. F., Lee, I. C., Tseng, C. C., & Lai, S. C. (2024). Developing students' self-regulated learning strategies to facilitate vocabulary development in a digital game-based learning environment. *Journal of Research on Technology in Education*, 1-20.
- Zahidi, A. M., & Ong, S. I. (2023). Self-efficacy beliefs and self-regulated learning strategies in learning English as a second language. *Theory and Practice in Language Studies*, 13(6), 1483-1493.
- Zaregham Hajabi, M., & Ghahremani, P. (2019). Investigating the effectiveness of teaching self-regulated learning strategies on motivation for progress and motivational beliefs of students. *Journal of Educational Studies View*, 7(2), 30-39.
- Zarei, S. (2022). The mediating role of academic self-efficacy in the relationship between permissive parenting and psychological distress among students. *Psychological Studies Quarterly*, 18(1), 127-139.