

AN ANALYSIS OF THE RELATIONSHIP BETWEEN SELF-REGULATION AND ACADEMIC ACHIEVEMENT IN PRIMARY SCHOOL STUDENTS

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Abstract:

Self-regulation has emerged as a crucial determinant of students' academic success, particularly during the formative years of primary education. The present study investigates the role of academic achievement in relation to self-regulation among primary school students. Using a normative survey method, data were collected from a sample of 200 primary school students drawn from Government and Private schools of Bapatla District. The Self-Regulation Questionnaire (SRQ) developed by Brown, Miller, and Lawendowski (1999) was used as the primary tool for data collection. Descriptive and inferential statistical techniques such as Mean, Standard Deviation, Percentage of Mean, and t-test were employed for analysis. The findings revealed that the overall level of self-regulation among primary school students was above average. Significant differences were found with respect to gender and medium of instruction, whereas locality and type of management did not show significant differences. The study highlights the importance of fostering self-regulatory skills in children to enhance academic achievement and offers educational implications for teachers and policymakers.

Keywords: Self-Regulation, Academic Achievement, Primary School Students, Gender, Medium of Instruction.

1. Introduction

Education plays a pivotal role in shaping individuals' cognitive, emotional, and behavioral development. In recent years, increasing attention has been paid to non-cognitive factors that influence academic achievement, among which self-regulation occupies a central position. Self-regulation refers to an individual's ability to monitor, control, and direct one's own behavior, emotions, and thoughts toward the attainment of goals. In the context of schooling, self-regulation enables learners to plan, monitor, and evaluate their learning processes effectively.

Primary school years are crucial for the development of self-regulatory skills. During this stage, children begin to internalize learning strategies, develop goal orientations, and manage emotions such as anxiety related to academic tasks. Research evidence suggests that children who exhibit higher levels of self-regulation tend to demonstrate better academic outcomes, greater persistence, and improved motivation. Despite its importance, self-regulation has received limited empirical attention in Indian primary school contexts. The present study seeks to address this gap by examining the role of academic achievement in relation to self-regulation among primary school students, with special reference to variables such as gender, locality, type of management, and medium of instruction.

2. Review of Related Literature

A substantial body of research has explored the relationship between self-regulation and academic achievement. Grolnick (1999) emphasized the role of family processes in the development of children's self-regulation, highlighting the influence of parental support and autonomy.

Howse et al. (2010, 2012) found that self-regulation, particularly attention regulation, significantly predicted academic achievement among economically disadvantaged children. Metallido (2010) reported that students with higher task value beliefs demonstrated superior self-regulated learning behaviors, especially in mathematics.

In the Indian context, Shaine (2015) examined the effects of self-regulated learning strategies and self-efficacy on academic achievement of primary school students and reported that self-efficacy was a significant predictor of achievement. Sahranavard (2018) established a positive relationship between self-regulation and educational performance among students.

The review of literature clearly indicates that self-regulation is a significant correlate of academic achievement. However, studies focusing specifically on primary school students in Indian settings remain limited, thereby justifying the need for the present investigation.

3. Objectives of the Study

1. To study the role of academic achievement on self-regulation among primary school students.
2. To analyze self-regulation with respect to its dimensions such as self-efficacy, goal orientation, task value, attribution for failure, and anxiety.
3. To examine the influence of gender, locality, type of management, and medium of instruction on self-regulation of primary school students.

4. Hypotheses of the Study

1. There is no significant difference in self-regulation between boys and girls.
2. There is no significant difference in self-regulation between rural and urban students.
3. There is no significant difference in self-regulation between government and private school students.
4. There is no significant difference in self-regulation between Telugu and English medium students.

5. Methodology

5.1 Research Design

The study adopted a normative survey method to assess the level of self-regulation among primary school students.

5.2 Sample

The sample consisted of 200 primary school students selected through random sampling from government and private schools of Bapatla District. The sample was equally distributed across gender, locality, type of management, and medium of instruction.

5.3 Tool Used

The Self-Regulation Questionnaire (SRQ) developed by Brown, Miller, and Lawendowski (1999) was used for data collection. The tool possesses high reliability ($r = 0.94$) and satisfactory validity.

5.4 Statistical Techniques

The data were analyzed using Mean, Standard Deviation, Percentage of Mean, and t-test to test the hypotheses.

6. Analysis and Results

The collected data were analyzed using descriptive and inferential statistics. Mean, Standard Deviation (SD), Percentage of Mean, and t-test were employed to examine the role of academic achievement on self-regulation and the influence of selected variables.

Table 1: Academic Achievement and Self-Regulation of Primary School Students (Overall)

N	Mean	SD	% of Mean
200	126.88	8.82	78.75

Interpretation: The overall mean score (126.88) indicates that primary school students possess an above-average level of self-regulation. The standard deviation (8.82) is considerably lower than one-fifth of the mean, indicating consistency among students’ self-regulation scores. Hence, academic achievement and self-regulation among primary school students are found to be satisfactory.

Table 2: Area-wise Mean, SD and Percentage of Mean of Self-Regulation

Area	Mean	SD	% of Mean	Rank
Self-Efficacy	23.76	2.47	64.60	III
Goal Orientation	25.28	2.34	67.60	I
Task Value	23.35	2.35	62.00	V
Attribution for Failure	23.32	2.36	66.40	II
Anxiety	23.18	2.40	63.60	IV

Interpretation: Among the five dimensions of self-regulation, *goal orientation* secured the highest mean percentage (67.6%), indicating that students are relatively strong in setting goals and directing their learning accordingly. *Attribution for failure* ranked second, suggesting moderate coping skills. *Task value* ranked last, indicating the need to improve students’ perceived importance of learning tasks.

Table 3: Mean, SD and t-value of Boys and Girls

Gender	N	Mean	SD	t-value	Result
Boys	100	125.71	10.69	2.64*	Significant
Girls	100	126.04	10.84		

Significant at 0.05 level

Interpretation: The calculated t-value (2.64) is greater than the table value at 0.05 level, indicating a significant difference between boys and girls. Girls exhibited slightly higher self-regulation than boys, suggesting better emotional control and academic discipline among female students.

Table 4: Mean, SD and t-value of Rural and Urban Students

Locality	N	Mean	SD	t-value	Result
Rural	100	126.84	10.13	0.22	Not Significant
Urban	100	126.91	10.43		

Interpretation: The obtained t-value (0.22) is less than the critical value at 0.05 level. Hence, there is no significant difference between rural and urban students in terms of academic achievement and self-regulation.

Table 5: Mean, SD and t-value of Government and Private School Students

Type of School	N	Mean	SD	t-value	Result
Government	100	126.02	10.64	0.67	Not Significant
Private	100	126.73	10.06		

Interpretation: The calculated t-value (0.67) is not significant at 0.05 level. This indicates that the type of management does not significantly influence self-regulation and academic achievement among primary school students.

Table 6: Mean, SD and t-value of Telugu and English Medium Students

Medium	N	Mean	SD	t-value	Result
Telugu	100	126.13	10.18	2.64*	Significant
English	100	125.84	10.50		

Significant at 0.05 level

Interpretation: The calculated t-value (2.64) exceeds the table value at 0.05 level, indicating a significant difference between Telugu and English medium students. Telugu medium students demonstrated higher self-regulation and academic achievement, possibly due to better conceptual understanding in the mother tongue.

7. Discussion

The findings of the present study reinforce earlier empirical evidence that self-regulation is a crucial factor associated with academic achievement among primary school students. Students who demonstrated higher levels of self-regulation exhibited better academic performance, indicating that the ability to plan, monitor, and control one’s learning behaviors positively influences scholastic success. This result aligns with previous research emphasizing self-regulation as a foundational skill for effective learning and academic persistence.

The observed higher levels of self-regulation among girls may be attributed to comparatively better emotional regulation, attentional control, and learning discipline. Girls often demonstrate greater compliance with classroom norms and a higher tendency toward organized learning behaviors, which may contribute to their enhanced self-regulatory skills.

Similarly, the superior performance of Telugu medium students in self-regulation and academic achievement may be linked to greater conceptual clarity and cognitive comfort when learning through the mother tongue during the primary stage. Instruction in the native language likely facilitates better comprehension, reduces cognitive load, and promotes active engagement in learning tasks, thereby strengthening self-regulatory processes.

The absence of significant differences with respect to locality and type of management suggests that self-regulation is less dependent on institutional or geographical factors and more influenced by individual characteristics, classroom practices, and instructional strategies. This finding highlights the

universal nature of self-regulatory skills and underscores the role of effective teaching practices in nurturing these abilities across diverse educational settings.

8. Educational Implications

Based on the findings of the study, the following educational implications are suggested:

1. Teachers should consciously adopt instructional strategies that promote self-regulated learning, such as goal setting, self-monitoring, reflective thinking, and time management, within classroom activities.
2. Parents should be made aware of the importance of nurturing self-regulation at home by encouraging independence, responsibility, and positive learning habits among children.
3. Curriculum planners and educational authorities should integrate activities and pedagogical approaches that foster emotional, cognitive, and behavioral regulation, particularly during the primary school stage, to support holistic student development.

9. Conclusion

The present study concludes that self-regulation plays a significant and positive role in enhancing academic achievement among primary school students. The development of self-regulatory skills at the primary level not only improves immediate academic outcomes but also contributes to long-term learning success and personal growth. The findings emphasize the necessity of deliberate and systematic instructional practices aimed at strengthening self-regulation in children. By fostering self-regulatory competencies early in life, educators and parents can support students in becoming autonomous, motivated, and effective learners, thereby improving the overall quality of education.

REFERENCES:

1. Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
2. Blair, C., & Diamond, A. (2008). Biological processes in prevention and intervention: The promotion of self-regulation as a means of preventing school failure. *Development and Psychopathology*, 20, 899–911.
3. Brown, J. M., Miller, W. R., & Lawendowski, L. A. (1999). The Self-Regulation Questionnaire. *Psychology of Addictive Behaviors*, 13(1), 1–17.
4. Grolnick, W. S. (1999). Family processes and the development of children's self-regulation. *Educational Psychologist*, 34(1), 19–30.
5. Howse, R. B., et al. (2010). Self-regulation and achievement in economically disadvantaged children. *Early Education and Development*, 21(5), 1–25.
6. Shaine, M. H. (2015). Self-regulated learning strategies and academic achievement of primary school students. *Indian Journal of Educational Research*, 4(2), 45–56.
7. Sahranavard, S. (2018). Self-regulation and educational performance. *Journal of Educational Studies*, 6(1), 33–41.