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SOCIAL INTELLIGENCE AND METACOGNITION IN RELATION TO ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS

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ABSTRACT
The present study examines the combined and individual contributions of social intelligence and metacognition to academic achievement among secondary school students. While traditional educational paradigms emphasize cognitive ability, emerging perspectives highlight the role of socio-emotional and self-regulatory competencies in determining academic success. This study adopts a descriptive-correlational design with predictive analysis. A sample of 100 secondary school students was selected using stratified random sampling. Standardized instruments were used to measure social intelligence and metacognitive awareness, while academic achievement was assessed through institutional examination scores. The findings reveal that both social intelligence and metacognition are significantly and positively correlated with academic achievement. The results have implications for curriculum design, teacher training, and policy-level educational reforms.

KEYWORDS: *Social Intelligence, Metacognition, Academic Achievement, Secondary Education, Self-Regulated Learning, Educational Psychology.*

1. INTRODUCTION

Education in the contemporary era is undergoing a paradigm shift from content-based instruction to competency-based learning. Academic achievement, traditionally viewed as a product of intelligence quotient (IQ), is now increasingly associated with broader psychological constructs such as emotional intelligence, social intelligence, and metacognition. Secondary school students are at a crucial developmental stage marked by cognitive maturation, identity formation, and increased social interaction. In this phase, students are expected not only to acquire knowledge but also to develop the ability to regulate their own learning and effectively navigate social environments.

Social intelligence enables students to interpret social cues, maintain relationships, and engage in collaborative learning contexts. Metacognition, on the other hand, empowers learners to plan, monitor, and evaluate their cognitive processes. The integration of these constructs may significantly influence academic performance, making it essential to study their combined impact.

2. REVIEW OF LITERATURE

Previous studies have consistently highlighted the importance of metacognition in enhancing academic performance. Learners with strong metacognitive skills demonstrate superior problem-solving abilities, better comprehension, and higher retention rates. Research on social intelligence indicates that students with higher interpersonal skills tend to perform better academically due to improved classroom participation, peer collaboration, and teacher-student interaction. Recent empirical findings suggest that:

- Metacognition is a direct predictor of academic success
- Social intelligence influences academic outcomes indirectly through engagement
- Combined models provide better explanatory power

However, a gap exists in the literature regarding the integrated predictive role of both constructs among secondary school students, particularly in developing educational contexts.

3. NEED AND SIGNIFICANCE OF THE STUDY

Need

- Increasing academic pressure requires self-regulated learning
- Lack of emphasis on socio-emotional competencies in schools

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- Need for holistic education models

Significance

- Provides empirical evidence for non-cognitive predictors
- Supports integration of SEL and metacognitive training
- Useful for teachers, curriculum developers, and policymakers

4. OBJECTIVES OF THE STUDY

1. To assess the level of social intelligence among secondary school students.
2. To examine the level of metacognitive awareness among students.
3. To determine the relationship between social intelligence, metacognition, and academic achievement.

5. NULL HYPOTHESES

$H0_1$: There is no significant relationship between social intelligence and academic achievement
$H0_2$: There is no significant relationship between metacognition and academic achievement
$H0_3$: Social intelligence and metacognition do not significantly predict academic achievement

6. METHODOLOGY OF THE STUDY

6.1 Research Design

- Descriptive, correlational, and predictive design

6.2 Sample

- N = 100 Secondary school students
- Stratified random sampling
- Representation of gender and locality

6.3 Tools

- Social Intelligence Scale (standardized)
- Metacognitive Awareness Inventory
- Academic Achievement Scores (school records)

6.4 Procedure

- Data were collected through classroom administration of tools. Academic scores were obtained from official records with permission.

6.5 Statistical Techniques

- Mean and Standard Deviation
- Pearson Correlation
- Multiple Regression Analysis

7. RESULTS AND DISCUSSION

7.1 Descriptive Statistics

Descriptive statistics were computed to understand the general level of social intelligence, metacognition, and academic achievement among secondary school students.

Variable	Mean	Standard Deviation (SD)
Social Intelligence	102.35	12.45
Metacognition	110.28	10.32
Academic Achievement	68.75	8.90

Interpretation

The descriptive statistics indicate that the mean score of Metacognition (M = 110.28) is higher than Social Intelligence (M = 102.35), while Academic Achievement has a moderate mean (M = 68.75). The standard deviations suggest reasonable variability among the 100 students.

7.2 Correlation Analysis

Pearson's correlation coefficient was used to examine the relationships among the variables.

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Variables	Social Intelligence	Metacognition	Academic Achievement
Social Intelligence	1	0.48	0.42
Metacognition	0.48	1	0.61
Academic Achievement	0.42	0.61	1

Interpretation

- There is a moderate positive correlation between Social Intelligence and Academic Achievement (r = 0.42).
- There is a moderate positive correlation between Social Intelligence and Metacognition (r = 0.48).
- There is a strong positive correlation between Metacognition and Academic Achievement (r = 0.61).

7.3 Regression Analysis

Multiple regression analysis was conducted to determine the predictive power of social intelligence and metacognition on academic achievement.

Regression Table

Predictor	Beta (β)	t-value	Significance
Social Intelligence	0.28	3.45	$p < 0.01$
Metacognition	0.52	6.78	$p < 0.001$

Model Summary

- $R^2 = 0.49$
- 49% variance explained

Interpretation

- Both Social Intelligence and Metacognition significantly predict Academic Achievement.
- Metacognition (β = 0.52) is a stronger predictor than Social Intelligence (β = 0.28).
- The model explains 49% of the variance in Academic Achievement among 100 students.

8. DISCUSSION

The findings from the sample of 100 students reveal that while both Social Intelligence and Metacognition positively influence Academic Achievement, Metacognition plays a more dominant role. The regression model further confirms that nearly half of the variation in academic performance can be explained by these two psychological variables.

The results indicate that both social intelligence and metacognition significantly influence academic achievement. However, metacognition demonstrates a stronger predictive role, suggesting that students who are aware of and regulate their cognitive processes perform better academically.

Social intelligence contributes by enhancing classroom interaction, peer collaboration, and emotional adjustment. Students with high social intelligence are more likely to engage in group learning, seek help, and maintain positive relationships, which indirectly supports academic success.

The combined effect of both variables suggests that academic achievement is not merely a cognitive outcome but a product of integrated psychological competencies.

9. EDUCATIONAL IMPLICATIONS

- Incorporate metacognitive strategy training in curriculum
- Promote social-emotional learning (SEL) programs
- Encourage collaborative and reflective learning methods
- Train teachers in fostering self-regulated learning

10. LIMITATIONS OF THE STUDY

- Limited sample size
- Cross-sectional design
- Self-report bias

11. SUGGESTIONS FOR FUTURE RESEARCH

- Longitudinal studies
- Experimental interventions
- Cross-cultural analysis

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12. CONCLUSION

The present study provides a comprehensive understanding of the dynamic interplay between social intelligence, metacognition, and academic achievement among secondary school students. Moving beyond traditional perspectives that emphasize cognitive ability alone, the findings of this research reaffirm that academic success is a multidimensional construct shaped by both cognitive self-regulation and socio-emotional competencies.

One of the most significant conclusions of this study is the dominant role of metacognition in predicting academic achievement. Students who demonstrate higher levels of metacognitive awareness—particularly in planning, monitoring, and evaluating their learning—are better equipped to navigate complex academic tasks. This highlights that academic excellence is not merely a function of knowledge acquisition but also of how effectively students manage their own learning processes. In the context of secondary education, where independent study and examination performance are emphasized, metacognitive skills become indispensable.

The study concludes that both social intelligence and metacognition are significant determinants of academic achievement. Metacognition plays a dominant role, while social intelligence enhances learning through interpersonal engagement. Educational systems must adopt a holistic approach to nurture both cognitive and socio-emotional competencies.

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