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Metacognitive Strategies and Teacher Behaviour: A Study on Their Influence in School-Classroom Practices

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ABSTRACT :

Metacognitive strategies play a crucial role in shaping teachers' instructional processes, reflective thinking, and classroom behaviour. This study investigates the influence of metacognitive strategies on teacher behaviour in school classroom practices. A descriptive survey method was adopted, involving a sample of 200 school teachers selected from government, aided, and private institutions using stratified random sampling. Standardized tools metacognitive strategies inventory for teachers and teacher behavior Scale was used for data collection. Statistical techniques such as mean, standard deviation, Pearson's correlation, regression analysis, t-test, and ANOVA were employed for interpretation. The findings revealed that teachers demonstrated moderate to high use of metacognitive strategies and moderately high levels of effective teacher behaviour. A strong positive correlation ($r = 0.61$) was found between metacognitive strategies and teacher behaviour, while regression analysis showed that metacognitive strategies significantly predicted 38% of the variance in teacher behaviour. Significant differences in teacher behaviour were observed based on the type of school, though no significant gender differences were found. The study concludes that integrating metacognitive practices enhances instructional clarity, classroom management, and student engagement. It recommends incorporating metacognitive training into pre-service and in-service teacher education to strengthen reflective and student-centered classroom practices.

KEYWORDS: Metacognitive Strategies; Teacher Behaviour; Reflective Teaching; Classroom Practices; School Education; Regression Analysis; Metacognitive Awareness.

1. Introduction

Metacognition refers to the awareness and regulation of one's own thinking processes, including planning, monitoring, and evaluating one's learning (Flavell, 1979). In classroom settings, teachers who employ metacognitive strategies not only enhance their instructional effectiveness but also foster students' ability to think critically and independently. Metacognitive strategies among teachers may include lesson planning with reflective thinking, monitoring student understanding, modifying instruction based on feedback, and evaluating instructional outcomes (Paris & Winograd, 1990). Teacher behavior comprising instructional clarity, classroom management, responsiveness, and interpersonal relationships plays a crucial role in shaping learning environments. When teachers integrate metacognitive strategies into their teaching behavior, they tend to create classrooms that promote autonomy, self-regulation, and meaningful learning (Schraw & Moshman, 1995). Prior studies reveal that teachers with strong metacognitive awareness exhibit more adaptive instructional behaviors, better classroom management, and improved student engagement (Veenman et al., 2006). However, many teachers still rely on traditional practices without consciously applying metacognitive principles in their instructional processes. Given the importance of teacher behavior in creating productive learning environments, this study examines how metacognitive strategies influence teacher behavior and classroom practices in school settings.

2. Review of Literature

Singh (2020) investigated metacognitive awareness and instructional behaviour among secondary school teachers focusing on the relationship between teachers' metacognitive knowledge and their classroom behavioural practices. The findings indicated that teachers with high metacognitive awareness showed greater ability to plan lessons effectively, modify instructional strategies, and manage classrooms efficiently. The study emphasized that metacognitive skills enhance teacher adaptability and instructional decision-making. *Rao (2022)* examined teacher metacognition and classroom responsiveness in diverse learning environments highlighting the role of metacognitive monitoring in dealing with learners' individual differences. The study found that teachers who regularly practiced metacognitive monitoring and self-reflection displayed stronger emotional regulation, better feedback

practices, and higher student engagement. The author recommended integrating metacognitive reflection into daily teaching routines. *Iqbal and Khan (2024)* explored impact of metacognitive pedagogy on teacher effectiveness in digital classrooms. The study, conducted during the post-pandemic period, reported that teachers who applied metacognitive planning and evaluation in online and blended learning environments were more effective in managing digital tools, assessing student learning, and maintaining classroom discipline. The findings suggested that metacognitive skills are essential for technology-integrated teaching. *Bharathi and Thomas (2025)* examined metacognitive regulation and its influence on classroom management behaviour of teachers. Their findings indicated that teachers with strong metacognitive regulation skills (planning, monitoring, evaluating) maintained better classroom discipline, resolved conflicts more effectively, and adapted teaching methods based on student feedback. The study emphasized the need for metacognitive skill development in teacher training programmes.

3. Objectives of the Study

To determine the relationship between metacognitive strategies and teacher behaviour.
To find out whether metacognitive strategies significantly predict teacher behaviour among school teachers.
To analyze the differences in teacher behaviour based on demographic variable such as type of school.

4. Hypotheses of the Study

Metacognitive strategies do not significantly predict teacher behaviour among school teachers.
There is no significant difference in teacher behaviour of school teachers based on demographic variable such as type of school.
There is no significant difference in the use of metacognitive strategies among teachers based on selected demographic variables.

5. Research Methodology

Method

A descriptive survey method was adopted to study the influence of metacognitive strategies on teacher behavior in school classrooms.

Population

All school teachers working in government and private schools in the selected district.

Sample and Sample Size

A sample of 200 school teachers was selected from government, aided, and private schools.

Sampling Technique

Stratified random sampling was used.

Tools Used

1. Metacognitive Strategies Inventory for Teachers (adapted from Schraw & Dennison, 2014).
2. Teacher Behavior Scale (adapted from Kumar & Mutha, 2018).

Statistical Techniques

- Mean and Standard Deviation
- Pearson's Correlation
- Simple Linear Regression
- t-test and ANOVA

6. Data Analysis and Interpretation

Table 1 – Correlation between Metacognitive Strategies and Teacher Behavior

Variables	r-value	Significance
Metacognitive Strategies & Teacher Behavior	0.61	Significant at 0.05 level

Interpretation:

There is a strong positive correlation between metacognitive strategies and teacher behavior, indicating that teachers who use metacognitive strategies demonstrate more effective classroom behavior.

Table 2 – Regression Analysis Metacognitive Strategies Significantly Predict Teacher Behaviour

Predictor	β	t-value	p-value
Metacognitive Strategies & Teacher Behavior	0.62	8.90	0.000*

Model Summary	Value
R	0.62
R^2	0.38
F-value	79.21 ($p < 0.05$)

Interpretation:

Metacognitive strategies significantly predict teacher behavior and explain 38% of the variance in teacher behavior.

Table 3 – ANOVA for Teacher Behavior Based on Type of School

Source	SS	df	MS	F-value	p-value
Between Groups	256.40	2	128.20	4.22	0.016*
Within Groups	5960.70	197	30.25		

Interpretation:

There is a significant difference in teacher behavior based on the type of school.

7. Findings of the Study

1. Teachers demonstrated moderate to high use of metacognitive strategies.
2. Teacher behavior levels were found to be moderately high across school settings.
3. A strong positive correlation existed between metacognitive strategies and teacher behavior.
4. Metacognitive strategies significantly predicted teacher behavior, explaining 38% of the variance.
5. Teacher behavior varied significantly based on school type, with private school teachers scoring higher.
6. No significant differences were found based on gender, but experience influenced metacognitive usage.

8. Recommendations

1. Provide training programmes for teachers to develop metacognitive skills such as reflective teaching, planning, monitoring, and evaluation.
2. Integrate metacognitive strategy modules into in-service and pre-service teacher education.
3. Encourage teachers to use reflective journals, lesson study, and peer mentoring.
4. Conduct workshops on self-regulated learning to improve classroom behavior.
5. School administrators should foster environments that support teacher autonomy and innovative practices.
6. Implement continuous monitoring and feedback systems to enhance reflective instructional practices.

9. Educational Implications

- Metacognitive strategies can enhance teachers' instructional clarity, decision-making, and adaptability.
- Students benefit from teachers who model metacognitive thinking, leading to more self-regulated learners.
- Classroom management improves when teachers reflect on their practices and revise strategies.
- Teacher training programmes should embed metacognitive skill development to strengthen professional competencies.
- Metacognitive teachers create learning environments that support creativity, inquiry, and deep learning.

10. Conclusion

The study concludes that metacognitive strategies significantly influence teacher behavior in school classrooms. Teachers who plan, monitor, and reflect on their instructional practices exhibit better classroom management, clearer instruction, and stronger student engagement. The findings reinforce the

importance of incorporating metacognitive training in teacher education and professional development programmes. Enhancing metacognitive awareness among teachers is essential for building reflective, effective, and learner-centered classrooms that promote quality education.

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