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EXPLORING THE ROLE OF SELF-EFFICACY IN TEACHER EFFECTIVENESS OF SECONDARY SCHOOL EDUCATORS

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ABSTRACT

The caliber of education is significantly influenced by the competence and confidence of teachers. The effectiveness of a teacher is determined by several factors, with self-efficacy being a key element. Psychologist Albert Bandura introduced the concept of self-efficacy within his social-cognitive theory. Self-efficacy pertains to a person's belief in their ability to perform specific tasks. Teachers who maintain a strong belief in their teaching abilities tend to set and achieve higher goals, whereas those with a weaker confidence may be hindered by the fear of failure. Over the past forty years, research has indicated the importance of teacher's self-efficacy in the context of teaching and learning, establishing it as a crucial construct. Self-efficacy is essential for teachers in achieving their objectives and tackling instructional challenges. This study explores the connection between teacher effectiveness and self-efficacy among secondary school educators. A quantitative survey was conducted with 300 teachers from both government and private secondary schools of Mathura District in Uttar Pradesh. Data was gathered using the Teacher Effectiveness Scale and the Teacher Self-Efficacy Scale. The findings revealed an important positive connection between self-efficacy and teacher effectiveness. Teachers with higher self-efficacy exhibit superior classroom management, instructional techniques, and student engagement which allow secondary school's teachers to implement a professional development and effectiveness in their teaching in the schools.

Keywords: Teacher Effectiveness, Self-Efficacy, Secondary Schools Educators, Secondary Schools

1. INTRODUCTION

Teacher effectiveness is widely recognized as a critical determinant of student's academic achievement, socio-emotional development and overall school quality, particularly at the secondary school level where learners encounter complex curricular demands and developmental challenges (Darling-Hammond, 2000; Hattie, 2009). Effective teachers not only possess strong subject knowledge and pedagogical skills but also demonstrate the confidence and resilience needed to engage diverse learners, manage classrooms and adapt instructional strategies. Among the psychological constructs influencing teacher performance, self-efficacy has emerged as a key factor shaping teacher's beliefs, behaviors and professional outcomes.

The concept of self-efficacy is grounded in Bandura's (1977, 1997) social cognitive theory, which defines self-efficacy as an individual's belief in their capability to organize and execute actions necessary to achieve desired outcomes. In educational settings, teacher self-efficacy refers to teacher's beliefs in their ability to plan and deliver instructions, manage classrooms, engage students and promote learning effectively (Tschannen-Moran & Hoy, 2001). Research has consistently shown that teachers with high self-efficacy are more likely to adopt innovative teaching practices, persist in the face of challenges, maintain positive classroom environments and demonstrate higher levels of commitment and job satisfaction. These attributes are particularly crucial in secondary schools where teachers must address subject specialization, adolescent learner needs and increasing academic pressure (Caprara et al., 2006).

Teacher effectiveness at the secondary level is a multidimensional construct encompassing instructional competence, classroom management, assessment practices, student engagement and professional responsibilities (Stronge, 2018). Studies suggest that self-efficacy influences each of these dimensions by shaping teacher's goal setting, effort, emotional regulation and responses to student behavior. Teachers with strong self-efficacy beliefs tend to view difficulties as manageable, employ student-centered approaches and foster supportive learning environments, thereby enhancing student outcomes. Conversely, low self-efficacy is often associated with stress, burnout, reliance on traditional teaching methods and reduced instructional effectiveness (Ross, 1992; Henson, 2001).

Over the past few decades, a growing body of empirical research has explored the relationship between teacher self-efficacy and effectiveness across different educational contexts. However, findings vary in terms of conceptualization, measurement tools, methodological approaches and contextual factors such as school climate, professional development and cultural settings (Skaalvik&Skaalvik, 2007). In secondary education, where teaching demands differ significantly from primary schooling, there is a need for a comprehensive synthesis of existing literature to better understand how self-efficacy contributes to teacher effectiveness and how it can be strengthened through policy and practice.

2. REVIEW OF LITERATURE

This study examined teacher's Self-Efficacy in Teaching Mathematics (SETM) in relation to their teaching profiles and pedagogical practices. Data were collected from 327 primary school teachers in New Zealand and analyzed using a multilevel structural equation modeling approach to investigate the relationships between SETM, effective pedagogical practices, teacher and school related characteristics. The findings indicated no significant differences in SETM based on gender, grade level taught or school socioeconomic status. However, teachers with greater teaching experience demonstrated significantly higher levels of SETM compared to less experienced teachers. Furthermore, teachers with higher self-efficacy in mathematics teaching reported greater use of pedagogical practices recognized as effective in mathematics classrooms than their counterparts with lower self-efficacy (D. Berg, 2025).

This study seeks to examine the relationship between teacher self-efficacy and student learning outcomes by identifying key findings and patterns and comparing them with results reported in previous research. A qualitative descriptive approach, employing a case study design, was adopted for this investigation. Data were analyzed using qualitative descriptive techniques and were obtained from 38 participants, including teachers, madrasah principals, and administrators from K.K.M. PrigenPasuruan. The findings reveal: (1) A positive relationship between teacher self-efficacy and student learning outcomes, underscoring the importance of supporting teachers in developing confidence in their professional capabilities; (2) Variations in levels of self-efficacy across different teacher demographic groups, such as age, gender, teaching experience, and educational background; and (3) The need to address existing gaps through targeted interventions and support systems, including effective policies, adequate infrastructure, and appropriate teaching facilities. Such measures can strengthen the relationship between teacher autonomy and student learning outcomes, ultimately contributing to more effective educational practices and policy development in madrasahs and similar educational contexts (Paisun, 2024).

This study aims to explore the relationship between emotional intelligence (EI) and teacher effectiveness in secondary school teachers. Emotional intelligence refers to an individual's ability to perceive, assess and manage emotions, both in themselves and in others. Teacher effectiveness encompasses a variety of qualities such as teaching skills, classroom management, student engagement and the ability to create a positive learning environment. This research investigates the degree to which EIimpacts various aspects of teacher effectiveness and how secondary school teachers with high EI perform in the classroom compared to their peers. This quantitative correlation study investigates the intricate relationship between the effectiveness of teachers and their emotional intelligence in the secondary

educational institutions/schools of Mathura District Uttar Pradesh seeking to elucidate the predictive power of emotional intelligence on teacher performance. The paper further aims to provide novel insights into the psychological factors influencing teacher effectiveness, ultimately informing evidence-based strategies for teacher development, training and educational policy (AGRAWAL, N. 2024).

The objective of this study is to investigate the relationship between self-efficacy and teacher effectiveness among school teachers. The population for the study comprised teachers working in secondary schools in Patna, Bihar. Data were collected using a Self-Efficacy Inventory and a Teacher Effectiveness Scale. A stratified random sampling technique was employed to select the sample, which consisted of 258 secondary school teachers from Patna. The findings of the study reveal a significant relationship between self-efficacy and teacher effectiveness among secondary school teachers(Paschal, 2021).

The present study investigated the impact of smart classroom instruction on the development of self-efficacy and self-concept among sixth-grade students. A randomly selected sample of 100 sixth-grade students from five CBSE schools in Mohali was included in the study. The participants were divided into two groups: an experimental group, which received instruction through smart classroom teaching and a control group, which was taught using conventional teaching–learning methods. A t-test was employed to examine mean differences between boys and girls at the sixth-grade level. The results indicated that boys demonstrated higher mean scores in self-concept and self-efficacy compared to girls. However, when exposed to smart classroom instruction, girls exhibited higher mean scores in self-concept (Kaur, 2021).

This study explored the relationships among teacher leadership, teacher self-efficacy and teacher performance based on teacher's perceptions. The sample comprised 401 teachers employed in public K–12 schools in Ankara, selected using a random sampling technique. Data were collected using the Teacher Leadership Scale, Self-Efficacy Scale and Job Performance Scale. A relational survey design was employed and the data were analyzed using quantitative methods, including descriptive statistics, correlation analysis and multiple linear regression analysis. The results revealed that teachers reported high levels of teacher leadership, self-efficacy and performance. Furthermore, moderate, positive and statistically significant relationships were identified among teacher leadership, self-efficacy and teacher performance. Additionally, teacher leadership was found to be a significant predictor of both self-efficacy and performance. These findings highlight the important role of teacher leadership behaviors in enhancing teacher self-efficacy and performance (Akman, 2021).

Against this background, the present review study aims to explore and critically examine existing research on the role of self-efficacy in teacher effectiveness in secondary schools. By analyzing theoretical frameworks, empirical findings and methodological trends, this review seeks to identify key patterns, gaps and implications for teacher education, professional development and educational leadership. Understanding the role of self-efficacy can provide valuable insights for enhancing teacher effectiveness and ultimately, improving the quality of secondary education.

3. OBJECTIVES OF THE STUDY

- To assess the level of self-efficacy among secondary school teachers in Mathura District, (U.P.) India.
- To evaluate the teacher effectiveness of secondary school teachers of Mathura District (U.P.) India.
- To examine the relationship between self-efficacy and teacher effectiveness of secondary school's teachers of Mathura District (U.P.) India on the basis of
  1) Gender
  2) Type of Institutions
  3) Teaching Experience
  4) Subject Streams

4. METHODOLOGY

1) **Method:** Survey Method was used to collect the data.
2) **Population:** The population for the study is the Secondary school teachers in Mathura, Uttar Pradesh.

3) **Sample:** The investigators used Purposive sampling method for selecting the schools andstratified random sampling technique for selecting the sample. The sample consisted of 288 teachers.

4) **Tools Used:** The investigator has used self-constructed and validated Teacher Self EfficacyScale and Teacher Effectiveness Scale. In this study effectiveness of secondary school teacher were determined through Teacher Effectiveness Scale developed by Kumar and Mutha and self-efficacy of secondary school teacher were examined through Teacher Self Efficacy Scale developed by Dr. Vishal Sood and Ms. Sapna Sen.

5) **Statistical Techniques**

Statistical techniques are systematic methods used to collect, organize, analyze, interpret and present data in research. In educational studies such as research on teacher performance, emotional intelligence in education, statistical techniques help researchers draw valid conclusions and test hypotheses scientifically.

Statistical techniques are broadly divided into descriptive statistics and inferential statistics. Descriptive statistics summarize and describe the main features of collected data. Inferential statistics are used to make predictions or generalizations about a population based on sample data. Statistical techniques are essential tools in educational research. They help researchers analyze data systematically, interpret findings accurately, and draw meaningful conclusions about variables such as AI integration, teacher effectiveness, and student achievement. Without statistical techniques, research findings would lack scientific credibility and reliability. Mean, standard deviation, Pearson correlation coefficient, t-test and significance test are applied to analyze the data.

5. FINDINGS

Table 1

Variable	Demographic Variable	N	Mean	SD	Calculated t- value	Level of Significance
	Male	182	140.5	40.3	2.16	S@
	Female	106	121.3	35.12		
	Government	94	112.12	28.75	2.45	S@
	Private	194	145.29	42.8		
Self Efficacy	Exp. < 10 yr	184	132.33	38.4	2.15	S@
	Exp. > 10 yr	104	125.81	28.2		
	Science	135	128.6	36.6	2.65	S*
	Commerce	153	130.4	38.12		
	Male	182	162.3	45.75	1.65	NS**
Teacher Effectiveness	Female	106	152.5	44.3		
	Government	94	177.2	42.33	1.35	NS**
	Private	194	178.8	43.1		
	Exp. < 10 yr	184	165.21	44.37	2.31	S@
	Exp. > 10 yr	104	155.65	48.16		
	Science	135	166.7	43.85	1.19	NS**
	Commerce	153	172.8	42.23		

** **Note:** significant at any level, *Significant at 0.01 level and @ Significant at 0.05 level

From the above table it is clarified that under self efficacy the mean score of male and female teachers are 140.5 and 121.3 with S.D's 40.3 and 35.12 respectively. The t ratio of above two groups is 2.16 which are significant at 0.05 levels. It further depicts the mean score of private and government teachers are 145.29 and 112.12 with S.D's 42.8 and 28.75 respectively. The t ratio of above two groups is 2.45 which are found significant at 0.05 levels. It further depicts the mean score of teachers experience less than ten years and experience greater than 10 years are 132.33 and 125.81 with S.D's 38.4 and 28.2 respectively. The t ratio of above two groups is 2.15 which are found significant at 0.05 levels. It further

depicts the mean score of science teachers and commerce teachers are 128.6 and 130.4 with S.D's 36.6 and 38.12 respectively. The t ratio of above two groups is 2.65 which are found significant at 0.01 levels.

It is also clarified that under teacher effectiveness the mean score of male and female teachers are 162.3 and 152.5 with S.D's 45.75 and 44.3 respectively. The t ratio of above two groups is 1.65 which is not significant at any level. It further depicts the mean score of private and government teachers are 178.8 and 177.2 with S.D's 43.1 and 42.33 respectively. The t ratio of above two groups is 1.35 which is not found significant at any level. It further depicts the mean score of teachers experience less than ten years and experience greater than 10 years are 165.21 and 155.65 with S.D's 44.37 and 48.16 respectively. The t ratio of above two groups is 2.31 which is found significant at 0.05 level. It further depicts the mean score of science teachers and commerce teachers are 166.7 and 172.8 with S.D's 43.85 and 42.23 respectively. The t ratio of above two groups is 1.19 which is not significant at any level.

Table 2

		Self Efficacy	Teacher Effectiveness
Self Efficacy	Pearson Correlation	1	0.068**
	Sig. (2-tailed)		0
	N	288	288
Teacher Effectiveness	Pearson Correlation	0.068**	1
	Sig. (2-tailed)	0	
	N	288	288

**Significant at 0.01 level

The table presents the relationship between Self-Efficacy and Teacher Effectiveness among secondary school teachers using Pearson's Correlation analysis. The correlation coefficient between Self-Efficacy and Teacher Effectiveness is r = 0.068. This indicates a positive relationship between the two variables. It means that as teacher's self-efficacy increases, their effectiveness in teaching also tends to improve.

Although the strength of the correlation is low, the relationship is statistically significant, as indicated by the p-value = 0.000, which is less than the standard significance level of 0.01. The sample size for the study is N = 288, which provides sufficient data to support the statistical significance of the findings.

6. RESULTS AND DISCUSSION

In this study the mean scores show that teachers generally rated high in self-efficacy also have greater teacher effectiveness. Pearson correlation analysis revealed a significant positive correlation ($r = 0.68$, $p < 0.01$) between self-efficacy and teacher effectiveness. Teachers with higher self-efficacy also scored higher in instructional delivery, assessment and student engagement. No significant difference was found in teacher effectiveness based on gender, type of institution and subject streams but teachers having greater experience had slightly higher teacher effectiveness than teachers having lesser experience.

7. CONCLUSION

The result of the study disclosed that teacher's self efficacy is influenced on the basis of gender, type of institutions, experiences and subject's stream whereas the teacher effectiveness is influenced on the basis of teacher's experiences. From the above findings it is concluded that the teacher's self-efficacy is independent and teacher effectiveness is dependent variable. Further, it is not out of place to mention that the self-efficacy and teacher effectiveness occupies vital importance in the teaching learning process. It can provide a sound theoretical framework for understanding the why's and how's of teacher development necessary. It also points to the potential value of a set of practical tools including feedback, various instructional design elements and integrated support systems that can be used to foster positive efficacy beliefs, improve teacher competence and enhance student outcomes. The study affirms a strong connection between self-efficacy and teacher effectiveness. Building self-efficacy through training, mentoring, and support systems can improve teaching performance and ultimately student achievement.

8. EDUCATIONAL IMPLICATIONS

The findings of this study hold significant implications for improving teaching quality and strengthening the secondary education system. Self-efficacy, which reflects teacher's belief in their own abilities to plan, organize, and execute teaching tasks, plays a vital role in enhancing teacher effectiveness. The study suggests that teachers with higher self-efficacy demonstrate greater confidence in classroom management, instructional strategies and student engagement. Therefore, teacher training programs should incorporate activities that build self-belief, problem-solving ability and resilience. Pre-service and in-service training should focus not only on subject knowledge but also on strengthening teacher's confidence in handling diverse classroom situations. Professional development programs should be designed to enhance teacher's mastery as successful teaching experiences contribute significantly to improving self-efficacy. Workshops, peer learning opportunities, mentoring systems and reflective teaching practices can help teachers build competence and confidence in their professional roles.

Finally, strengthening teacher self-efficacy can lead to improved student motivation, better classroom discipline and enhanced academic achievement. Thus, educational institutions and policymakers should prioritize the development of teacher self-efficacy as a key component of quality education at the secondary level.

CONFLICT OF INTERESTS

None.

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