

Teaching Competence among Senior Secondary School Teachers: An Exploration

Rajib Dey

Department of Education, Research Scholar, Meerut College, Meerut

Dr. Sanjay Kumar

Assistant professor, Meerut College, Meerut

Abstract: In the contemporary educational landscape, teaching competence has emerged as a critical determinant of student success, particularly at the senior secondary level where learners prepare for higher education and professional life. This study, titled "Teaching Competence among Senior Secondary School Teachers: An Exploration", investigates the current status of teaching competence among 300 teachers from the Meerut district of Uttar Pradesh. The research employed a descriptive survey design and utilized a standardized Teaching Competence Scale to assess various dimensions such as lesson planning, instructional strategies, classroom management, student engagement, and evaluation practices. The sample included both male (126) and female (174) teachers across Arts (170) and Science (130) streams. Data were analyzed using descriptive statistics and Z-score classification to categorize competence levels into seven bands—from extremely low to extremely high. The findings revealed that a majority of teachers fall into the average to above-average competence range. Notable differences were observed across gender and academic streams, with female and Arts stream teachers showing relatively stronger competence in certain areas. This study highlights the urgent need for targeted professional development programs and stream-specific teacher training initiatives. The insights gained offer valuable implications for educational policy, teacher education, and institutional reforms aimed at enhancing teaching quality and student outcomes.

Key points: Teaching Competence, Senior Secondary, Teachers, professional development.

Introduction: In today's knowledge-driven society, the role of a teacher extends far beyond the traditional boundaries of delivering content. This is particularly true at the senior secondary level, where students stand at the critical threshold of higher education and future professional endeavors. Here, the quality of teaching has a lasting impact on shaping learners' academic performance, cognitive development, emotional stability, and life skills. Therefore, teaching competence—the comprehensive ability to effectively plan, instruct, manage, and evaluate the teaching-learning process—becomes an indispensable trait for educators at this stage.

Teaching competence encompasses a variety of skills and qualities including subject matter expertise, pedagogical strategies, classroom management, student engagement, use of educational technology, adaptability, and reflective practice. It also requires a firm understanding of learners' needs, emotional intelligence, and the ability to foster inclusive and supportive learning environments. A competent teacher is not only a knowledge transmitter but also a facilitator, guide, mentor, and motivator.

At the senior secondary level, teaching competence gains even more significance because students are in a transitional phase—preparing for board examinations, competitive tests, and making crucial career decisions. Competent teachers are better positioned to offer academic guidance, emotional support, and skill development, thereby nurturing confident and capable individuals. Moreover,

with the growing emphasis on 21st-century skills and outcome-based education, teaching competence now demands continuous professional development and upgradation.

Recent research and assessments show that teaching competence varies across gender and academic streams. For example, male and female teachers may exhibit differences in areas like instructional delivery, empathy, and classroom management. Similarly, teachers in Arts and Science streams may show varying strengths in creative thinking, subject integration, or scientific inquiry. Such findings indicate the need for a differentiated approach in teacher training and development programs.

Significance of the study: This study on teaching competence among senior secondary school teachers is highly significant in today's evolving educational environment. It emphasizes that teachers must do more than impart subject knowledge—they must mentor students, foster critical thinking, and prepare them for future challenges. The study explores the broader dimensions of teaching competence, including lesson planning, classroom management, instructional diversity, and emotional support.

By assessing teachers' competence levels across gender and academic streams, the research offers valuable insights into current practices and areas needing improvement. It highlights the need for targeted professional development and tailored training programs. The findings have important implications for policy-making, particularly in teacher recruitment, evaluation, and promotion.

Additionally, the study supports gender-inclusive strategies and stream-specific teacher education reforms. It contributes to educational research by providing data-driven evidence on teaching competence in the Indian context, laying the foundation for future academic and policy-oriented work. Overall, the study underscores the importance of enhancing teaching quality to ensure better student outcomes and holistic development.

Objectives of the Study: The study seeks to assess the present status of teaching competence among senior secondary school teachers. The specific objectives are:

1. To study the overall level of teaching competence of senior secondary school teachers.
2. To study the level of teaching competence among male teachers of senior secondary schools.
3. To study the level of teaching competence among female teachers of senior secondary schools.
4. To study the level of teaching competence of senior secondary school teachers of the Arts stream.
5. To study the level of teaching competence of senior secondary school teachers of the Science stream.

Methodology

Research Design: The study adopts a descriptive survey research design aimed at assessing the current levels of teaching competence among senior secondary school teachers. This design is appropriate for systematically analyzing and interpreting the competencies of teachers without manipulating any variables.

Population and Sample: The population for this study comprises senior secondary school teachers working in both government and private institutions in the Meerut district of Uttar Pradesh. A random sampling technique was employed to ensure balanced representation across gender (male and female) and academic streams (Arts and Science).

The total sample consisted of 300 teachers, distributed as follows:

- **Male Teachers:** 126
- **Female Teachers:** 174
- **Arts Stream Teachers:** 170
- **Science Stream Teachers:** 130

Tool for Data Collection: To assess teaching competence, a standardized Teaching Competence Scale was used. The scale covered various dimensions of teaching such as lesson planning, instructional delivery, classroom management, student engagement, evaluation skills, and professional behavior.

Data Analysis Techniques: The collected data were analyzed using descriptive statistics to interpret the levels of teaching competence. Graphical tools such as bar graphs were used to represent the percentage-wise distribution across different groups (gender and academic stream). The Z-score-based classification enabled objective comparison among the subgroups.

Data Analysis and Interpretation:

Table 1: Descriptive Showing Normality of Distribution of Scores for Teaching Competence

Variable	N	Mean	S.D.	Skewness	S.E.(Skewness)	Ratio (Skewness)	Kurtosis	S.E.(Kurtosis)	Ratio (Kurtosis)
Teaching Competence	300	165.45	18.57	-.193	.141	-1.368	-.143	.281	-.508

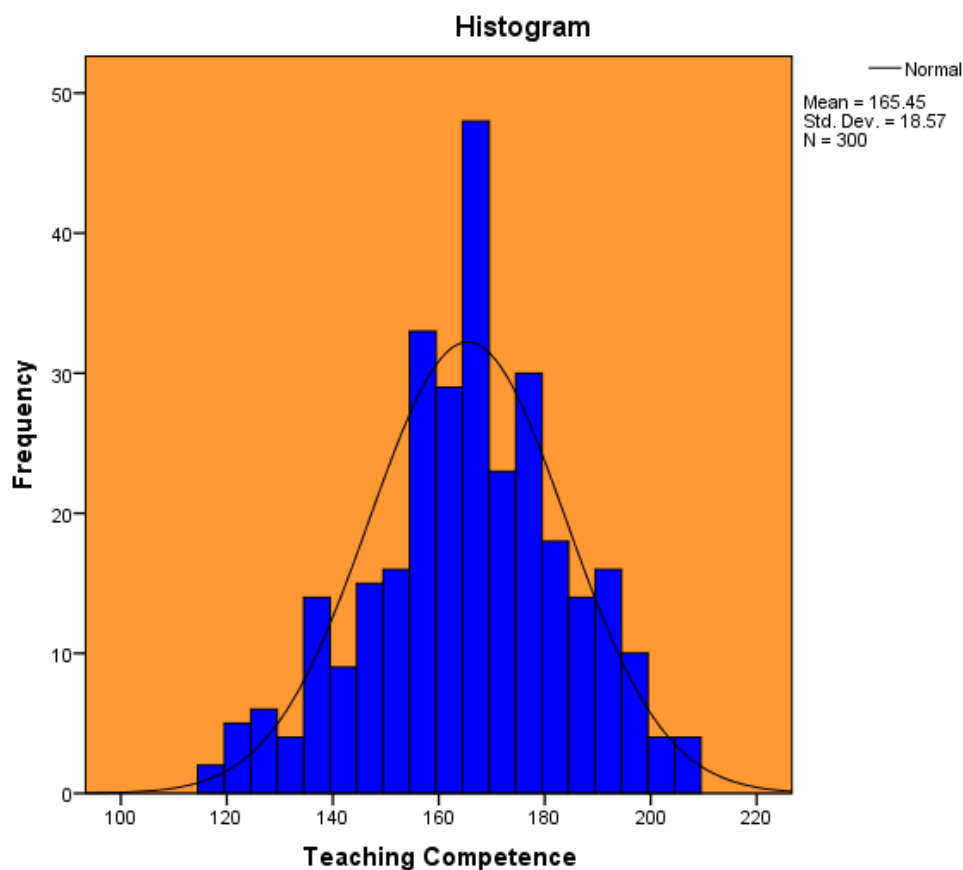


Figure 1 Histogram Showing Normality of Distribution of Scores for Teaching Competence

Table represents that the absolute values of skewness (-.193) and kurtosis (-.143) for teaching competence lie within the range of -2 and +2 respectively, indicating normality. Further the ratios of skewness and kurtosis for teaching competence to their respective standard errors are in the range of -1.96 and +1.96 respectively. Thus, this distribution of scores may be assumed to be normal.

Objective : To study the present status of teaching competence of senior secondary school teachers

To achieve this objective investigator computed Z-scores from the raw scores gained by the senior secondary school teachers on teaching competence scale. The teachers whose Z-scores were +2.01 and above were kept in extremely high group. The teachers whose Z-scores were in the range of

+1.26 to +2.00 were kept in high group. The teachers whose Z-scores were in the range of +0.51 to +1.25 were kept in above average group. The teachers whose Z-scores were in the range of -0.50 to +0.50 were kept in average group. The teachers whose Z-scores were in the range of -0.51 to -1.25 were kept in below average group. The teachers whose Z-scores were in the range of -1.26 to -2.00 were kept in low group and the teachers whose Z-scores were -2.01 and below were kept in extremely low group. Results related to this analysis are shown below: -

Table 2 Levels of Teaching Competence of Senior Secondary School Teachers

S. No.	Range of Z-Scores	Levels of Teaching Competence	No. of Teachers (f)	Percentage (%) of Teachers
1	+2.01 and above	Extremely High	5	1.67
2	+1.26 to +2.00	High	31	10.33
3	+0.51 to +1.25	Above Average	60	20
4	-0.50 to +0.50	Average/ Moderate	116	38.67
5	-0.51 to -1.25	Below Average	54	18
6	-1.26 to -2.00	Low	23	7.67
7	-2.01 and below	Extremely Low	11	3.67
	N		300	100

Table shows that 38.67% of senior secondary school teachers have average and 20% of them have an above-average level of teaching competence. Whereas, only 10.33% and 1.67% of teachers have a high and extremely high level of teaching competence. On the contrary, 18% of them have a below-average level, 7.67% have a low level and 3.67% have extremely low level of teaching competence. Graphical representation of this distribution mirrors these differences in the level of teaching competence.

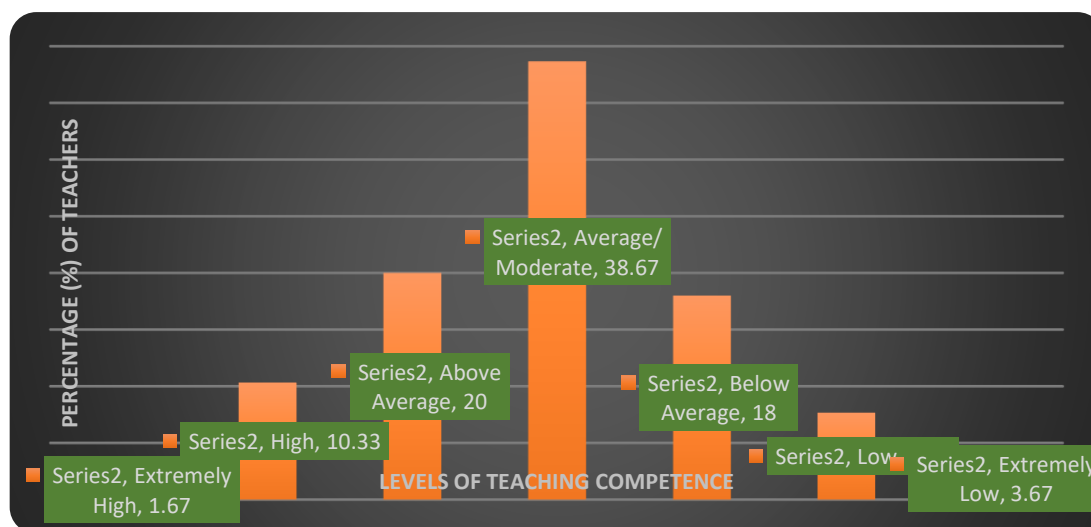


Figure 2 Bar Graph Showing the Percentage of Levels of Teaching Competence of Senior Secondary School Teachers

Objective: To study the present status of teaching competence of male teachers of senior secondary schools.

Table 3: Levels of Teaching Competence of Male Teachers of Senior Secondary Schools

S. No.	Range of Z-Scores	Levels of Teaching Competence	No. of Teachers (f)	Percentage (%) of Teachers
1	+2.01 and above	Extremely High	-	-
2	+1.26 to +2.00	High	14	11.11
3	+0.51 to +1.25	Above Average	24	19.05
4	-0.50 to +0.50	Average/	53	42.06

		Moderate		
5	-0.51 to -1.25	Below Average	18	14.29
6	-1.26 to -2.00	Low	10	7.94
7	-2.01 and below	Extremely Low	7	5.56
	N		126	100

Table shows that 42.06% of male teachers of senior secondary schools have average and 19.05% of them have an above average level of teaching competence. Whereas, only 11.11% teachers have a high level and no teacher has extremely high level of teaching competence. On the contrary, 14.29% of them have a below-average level, 7.94% have a low level and 5.56% have extremely low level of teaching competence. Graphical representation of this distribution mirrors these differences in the level of teaching competence.

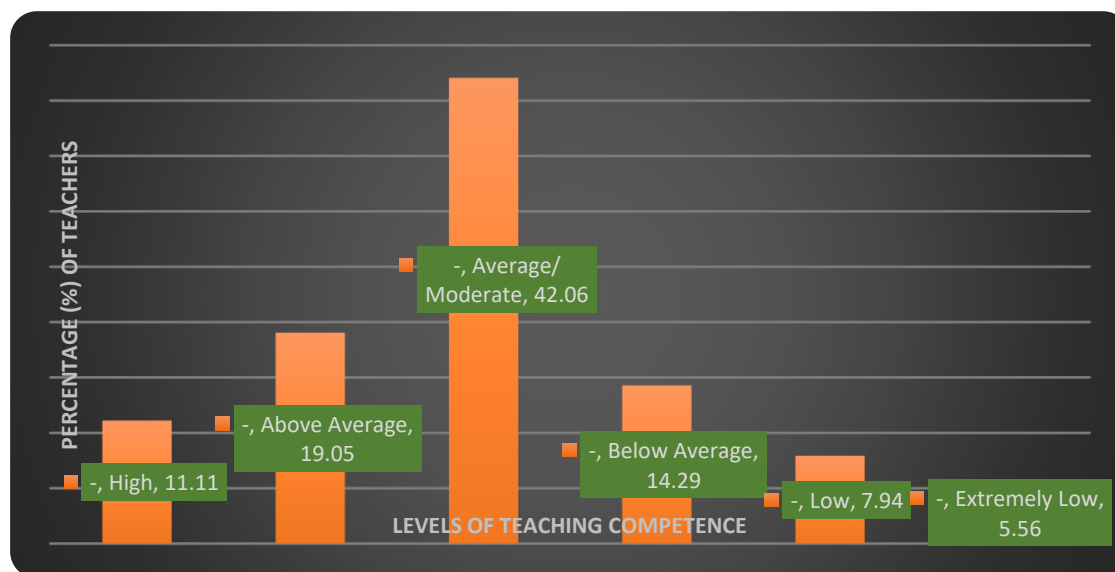


Figure 3 Bar Graph Showing the Percentage of Levels of Teaching Competence of Male Teachers of Senior Schools

Objective: To study the present status of teaching competence of female teachers of senior secondary schools.

Table 4: Levels of Teaching Competence of Female Teachers of Senior Secondary Schools

S. No.	Range of Z-Scores	Levels of Teaching Competence	No. of Teachers (f)	Percentage (%) of Teachers
1	+2.01 and above	Extremely High	2	1.15
2	+1.26 to + 2.00	High	19	10.92
3	+0.51 to +1.25	Above Average	30	17.24
4	-0.50 to +0.50	Average/ Moderate	70	40.23
5	-0.51 to -1.25	Below Average	33	18.97
6	-1.26 to -2.00	Low	14	8.05
7	-2.01 and below	Extremely Low	6	3.45
	N		174	100

Table shows that 40.23% of female teachers of senior secondary schools have average and 17.24% of them have an above-average level of teaching competence. Whereas, only 10.92% and 1.15% of teachers have a high and extremely high level of teaching competence. On the contrary, 18.97% of them have a below-average level, 8.05% have a low level and 3.45% have extremely low level of teaching competence. Graphical representation of this distribution mirrors these differences in the level of teaching competence.



Figure 4 Bar Graph Showing the Percentage of Levels of Teaching Competence of Female Teachers of Senior Secondary Schools

Objective: To study the present status of teaching competence of senior secondary school teachers of art stream.

Table 5: Levels of Teaching Competence of Senior Secondary School Teachers of Art Stream

S. No.	Range of Z-Scores	Levels of Teaching Competence	No. of Teachers (f)	Percentage (%) of Teachers
1	+2.01 and above	Extremely High	4	2.35
2	+ 1.26 to +2.00	High	12	7.06
3	+0.51 to +1.25	Above average	37	21.76
4	-0.05 to +0.05	Average/ Moderate	73	42.94
5	-0.51 to -1.25	Below Average	23	13.53
6	-1.26 to -2.00	Low	13	7.65
7	-2.01 and below	Extremely Low	8	4.71
	N		170	100

Table shows that 42.94% of senior secondary school teachers of art stream have average and 21.76% of them have an above average level of teaching competence. Whereas, only 7.06% and 2.35% of teachers have a high and extremely high level of teaching competence. On the contrary, 13.53% of them have a below-average level, 7.65% have a low level and 4.71% have extremely low level of teaching competence. Graphical representation of this distribution mirrors these differences in the level of teaching competence.

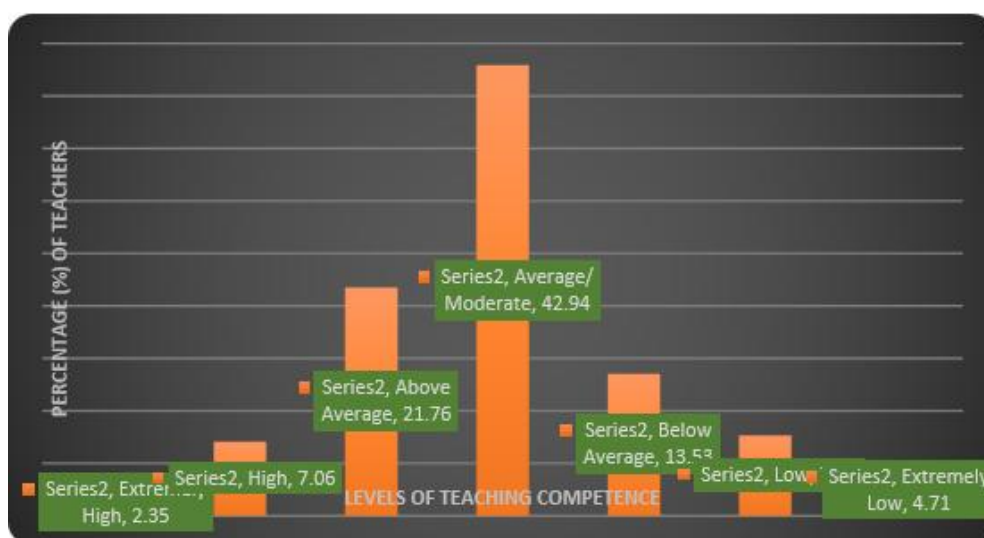


Figure 5 Bar Graph Showing the Percentage of Levels of Teaching Competence of Senior Secondary School Teachers of Art Stream

Objective: To study the present status of teaching competence of senior secondary school teachers of science stream.

Table 6: Levels of Teaching Competence of Senior Secondary School Teachers of Science Stream

S. No.	Range of Z-Scores	Levels of Teaching Competence	No. of Teachers (f)	Percentage (%) of Teachers
1	+ 2.01 and above	Extremely High	2	1.54
2	+1.26 to +2.00	High	17	13.08
3	+0.51 to +1.25	Above average	19	14.62
4	-0.50 to +0.50	Average/ Moderate	51	39.23
5	-0.51 to -1.25	Below Average	27	20.77
6	-1.26 to -2.00	Low	10	7.69
7	-2.01 and below	Extremely Low	4	3.08
	N		130	100

Table shows that 39.23% of senior secondary school teachers of science have average and 14.62% of them have an above-average level of teaching competence. Whereas, only 13.08% and 1.54% of teachers have a high and extremely high level of teaching competence. On the contrary, 20.77% of them have a below-average level, 7.69% have a low level and 3.08% have extremely low level of teaching competence. Graphical representation of this distribution mirrors these differences in the level of teaching competence.

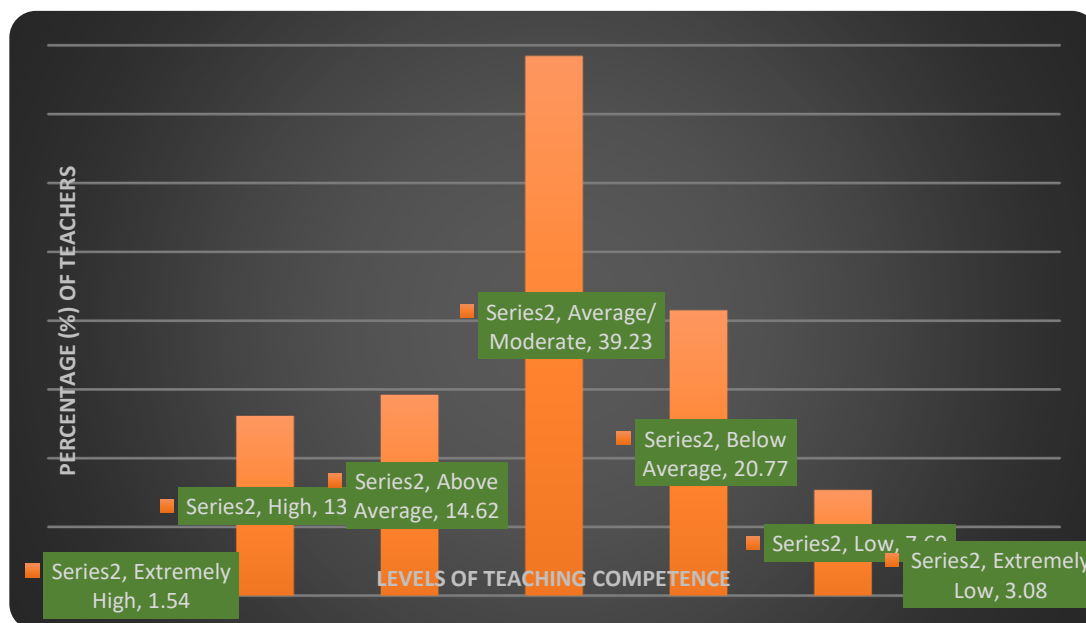


Figure 6: Bar Graph Showing the Percentage of Levels of Teaching Competence of Senior Secondary School Teachers of Science Stream

Findings: The findings revealed that a majority of teachers fall into the average to above-average competence range. Notable differences were observed across gender and academic streams, with female and Arts stream teachers showing relatively stronger competence in certain areas.

Conclusion: In conclusion, teaching competence lies at the heart of quality education. For senior secondary school teachers, this competence is not merely a professional requirement—it is a moral and educational responsibility. By investing in the development of teaching competence, educational institutions can significantly improve student learning outcomes, promote equity, and cultivate a generation of learners who are intellectually capable, emotionally resilient, and socially responsible. As the educational landscape evolves, so must the competencies of the teachers who shape its future.