

# A Comparative Study on Neuropsychology Between CBSE Board School Teachers and UP Board School Teachers in Western Uttar Pradesh

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**Received** 01 August 2026

**Accepted** 05 August 2026

**Published** 10 August 2026

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DOI: <https://doi.org/10.64880/tvsjir.v1i3.01>

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sector.

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## Abstract:

According to Table II, the *t*-value for CBSE board school teachers is 31.009 and for UP board school teachers are 56.708. The *t*-value for UP board school teachers is higher than for CBSE board school teachers. The mean difference for CBSE board school teachers is 71.03, and for UP board school teachers are 80.73. The mean difference for UP board school teachers is higher than for CBSE board school teachers. Therefore, the Neuropsychology of UP board school teachers is higher than that of CBSE board school teachers. This study was conducted to compare the Neuropsychology of CBSE board school teachers and UP board school teachers. The independent variable is Neuropsychology, and the dependent variables are CBSE board school teachers and UP board school teachers. A total of 20 CBSE board school teachers and 20 UP board school teachers were sampled. Therefore, a total of 40 teachers were examined. The study concluded that teachers at UP Board schools have better Neuropsychology. Consequently, teachers at CBSE Board schools also have better Neuropsychology. The reason for UP Board teachers' good Neuropsychology is their balanced diet and socialization. This study aimed to educate CBSE and UP Board school teachers about Neuropsychology.

**Key word:** Neuropsychology, C.B.S.E. Board School Teacher and U.P. Board School Teacher

## INTRODUCTION

Neuropsychology is the branch of psychology that studies the relationship between the brain and human behaviour. It explores how different areas of the brain influence thinking, memory, emotions, language, learning, perception, attention, intelligence, personality, and movement. Neuropsychology

combines principles from psychology, neuroscience, biology, medicine, and cognitive science to understand how the structure and function of the brain affect mental processes and behaviour. It also examines how brain injuries, diseases, and neurological disorders influence an individual's cognitive and emotional functioning. The human brain is the most complex organ in the body, consisting of billions of neurons connected through trillions of synapses. These neurons communicate through electrical and chemical signals, allowing people to think, remember, feel emotions, solve problems, make decisions, and control movements. Neuropsychology seeks to understand how these neural processes produce observable behaviours and mental abilities. Neuropsychology developed from the idea that specific regions of the brain perform specialized functions. Early researchers noticed that injuries to certain parts of the brain resulted in specific behavioural changes. For example, damage to the language centres often caused difficulties in speaking or understanding language, while injury to memory-related structures affected the ability to remember information. One of the primary goals of neuropsychology is to identify how normal brain functioning supports cognitive abilities. Another goal is to understand the consequences of brain damage caused by trauma, stroke, tumours, infections, epilepsy, dementia, or developmental disorders. By studying both healthy and injured brains, neuropsychologists gain valuable knowledge about brain organization and cognitive functioning. Neuropsychology focuses on many cognitive functions. Memory is one of the most important areas of study. Memory enables people to store, retain, and retrieve information. Neuropsychologists examine different types of memory, including short-term memory, long-term memory, working memory, episodic memory, semantic memory, and procedural memory. Each type of memory depends on different brain systems working together. Attention is another major area in neuropsychology. Attention allows individuals to focus on relevant information while ignoring distractions. Difficulties with attention may occur after brain injuries or neurological disorders and can significantly affect learning, work, and daily life. Language is a key topic in neuropsychology. Language includes speaking, understanding, reading, and writing. Brain regions in the left hemisphere, particularly Broca's area and Wernicke's area, play essential roles in language processing. Damage to these areas may cause aphasia, a disorder affecting communication abilities. Executive functions are higher-level cognitive processes responsible for planning, organizing, reasoning, decision-making, problem-solving, self-control, and flexible thinking. These functions are mainly associated with the frontal lobes of the brain. Executive dysfunction may occur after frontal lobe damage and can affect everyday functioning. Perception is another important field of neuropsychology. Perception involves interpreting sensory information from vision, hearing, touch, taste, and smell. The brain transforms sensory signals into meaningful experiences, allowing individuals to recognize objects, faces, sounds, and environmental events.

Emotion is closely connected to brain functioning. Neuropsychologists study how brain structures such as the amygdala, hippocampus, hypothalamus, and prefrontal cortex contribute to emotional experiences and emotional regulation. Brain injuries may result in changes in emotional responses, personality, or social behaviour. Learning depends on the interaction between memory, attention, motivation, and neural plasticity. Neuropsychology investigates how the brain acquires new

knowledge and adapts to changing environments through experience. Neural plasticity is one of the most remarkable discoveries in neuroscience. It refers to the brain's ability to reorganize itself by forming new neural connections throughout life. This ability allows individuals to recover partially from brain injuries, learn new skills, and adapt to changing circumstances. Neuropsychologists assess patients using standardized neuropsychological tests. These tests measure intelligence, memory, language, attention, executive functions, visual-spatial abilities, motor coordination, and emotional functioning. The results help identify strengths and weaknesses in cognitive performance. Clinical neuropsychologists work closely with neurologists, psychiatrists, psychologists, rehabilitation specialists, speech therapists, occupational therapists, and physiotherapists. Together they develop treatment plans that improve patients' quality of life.

### **OBJECTIVES OF THE STUDY**

1. To study that the Teachers have knowledge about Neuropsychology.
2. To study status of Neuropsychology in the Teachers.
3. To know and reveal the health status of Teachers.

### **HYPOTHESIS**

1. There will be a significant difference in Neuropsychology between C.B.S.E. Board School Teacher and U.P. Board School Teacher.
2. There will be no significant difference in Neuropsychology between C.B.S.E. Board School Teacher and U.P. Board School Teacher.

### **DELIMITATIONS**

1. This study will be limited to male teachers, CBSE board school teachers and UP board school teachers.
2. The study will be delimited to the 40 male teachers, CBSE board school teachers and UP board school teachers.
3. This study will be limited to male teachers aged 21 to 60 years, CBSE board school teachers and UP board school teachers.
4. This study will be conducted in Western Uttar Pradesh.

### **LIMITATIONS**

If any Teachers before the Neuropsychology tests, changes his normal diet with unhealthy diet than the result comes out will be imbalance.

### **REVIEW OF RELATED LITERATURE**

**Gupta Neeta and SrivastavaNeharshi (2016)** studied teacher effectiveness in relation to emotional Intelligence and job satisfaction among Secondary school teachers. A representative sample of 200 secondary school teachers was collected from Tihar U.P. data was collected by using teacher effectiveness scale developed by Kumar and Mutha (1999), emotional intelligence was measured by using Emotional intelligence scale developed by Hyde et.al (2001) and job satisfaction was measured by using job satisfaction scale (Kumar &Mutha, 2007). After that t test was used for analysis of data. The results revealed that emotional intelligence and job satisfaction significantly affects the teacher effectiveness of secondary school teachers.

**Tool Kaur (2016)** studied teacher effectiveness, general intelligence and creativity of secondary school teachers. Sample involves the 850 secondary school teachers of the Punjab. The analysis showed that there found no significant difference in teacher effectiveness of male and female secondary school teachers, whereas in case of government schools both male and 40 35 No. of Researches reviewed National Researchers International Researches 34 female teachers are effective. Further there found significant difference between the intelligence of male and female teachers. Female teachers found more intelligent as compared to male counterparts both in case of government and private schools. In all teacher effectiveness is positively and significantly related with general intelligence and creativity among secondary school teachers.

**Joshi Chandrawati (2015)** examined teacher effectiveness and occupational stress in Relation to Emotional Intelligence. A representative sample of 100 secondary school teachers of Nainital district was selected by simple random method. Emotional intelligence of teachers was measured by Emotional Intelligence scale by Anukool Hyde and SanjayotPether, Upinder and teacher effectiveness was measured by teacher effectiveness scale developed by Shallupri and Prof. S.C. Garkhar. From results it concludes that teachers having high emotional intelligence have low occupational stress and high teacher effectiveness whereas teachers having low emotional intelligence have high occupational stress and low teacher effectiveness. Therefore emotional intelligence can reduce the occupational stress and it may also enhance the teacher effectiveness.

**Rani Sarla and Devi Poornima (2015)** explored the teacher effectiveness of senior secondary school teachers in relation to gender, type of school and teaching experience. A representative sample of 150 teachers selected randomly from Sonapat district of Haryana. Teacher Effectiveness was measured by Teacher effectiveness scale by PuriGakhar. The study revealed that there found no significant difference between the teachers teaching in government and private schools on their effectiveness. Results also indicate that there found significant difference between teachers having teaching experience below and above 10 years and teacher effectiveness.

**Kaur Preetinder and Sharma Sushma (2015)** studied teacher effectiveness of secondary school teachers in relation to occupational stress, gender and teaching experience. A representative sample of 250 secondary school teachers was taken from the government and private schools of Bamala district of Punjab. Data was collected by using teacher effectiveness 35 scale developed by Kulsum (2011) and occupational stress index developed by Srivastava and Singh. Data was analyzed by using ANOVA. Findings showed that teacher effectiveness is not affected by occupational stress levels. There found no significant interactional effect of teaching experience and gender on teacher effectiveness. It also concludes that no significant interactional effect of occupational stress, teaching experience and gender on teacher effectiveness was found.

## **METHODOLOGY**

This study part describes the procedures followed for selecting subjects, selecting variables, criteria measures, collecting data, and the statistical techniques used.

## **SELECTION OF SUBJECTS**

The study selected 40 teachers, including 20 CBSE board school teachers and 20 UP board school teachers, to measure Neuropsychology. Male teachers aged 21 to 60 were selected for this study.

**Independent Variable:**

1. Neuropsychology

**Dependent Variables:**

1. CBSE board school teachers
2. UP board school teachers.

**SELECTION OF SAMPLING TECHNIQUE**

A simple random sampling technique was used to collect reliable data from the respondents. The sample of teachers was selected based on a random number table.

**CRITERION MEASURES OF VARIABLES**

1. Neuropsychology was evaluated using the Adult Suicidal Ideation Questionnaire (ASIQ)

**TOOL**

|                 |                                   |
|-----------------|-----------------------------------|
| Neuropsychology | Aphasia Diagnostic Profiles (ADP) |
|-----------------|-----------------------------------|

**STATISTICAL ANALYSIS OF DATA**

For this study, the mean and standard deviation were examined. An independent t-test was used to determine the significance of differences among the selected teachers. SPSS software (version 28) was utilized to determine the difference in means between CBSE board school teachers and UP board school teachers. A significance level of 0.05 was set to determine significance.

| One-Sample Statistics      |    |       |                |                 |
|----------------------------|----|-------|----------------|-----------------|
|                            | N  | Mean  | Std. Deviation | Std. Error Mean |
| CBSE board school teachers | 20 | 71.03 | 8.00           | 3.90            |
| UP board school teachers   | 20 | 80.73 | 7.08           | 2.02            |

**Table: 1**

Table : I showed that CBSE board school teachers Mean and Std. Deviation is 71.03 ± 8.00 and Std.

Error Mean is 3.90

UP board school teachers Mean and Std. Deviation is 80.73 ± 7.08 and Std Error Mean is 2.02

**One-Sample Test**

|  | Test Value = 0 |    |                 |                 |                                           |       |
|--|----------------|----|-----------------|-----------------|-------------------------------------------|-------|
|  | t              | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |       |
|  |                |    |                 |                 | Lower                                     | Upper |

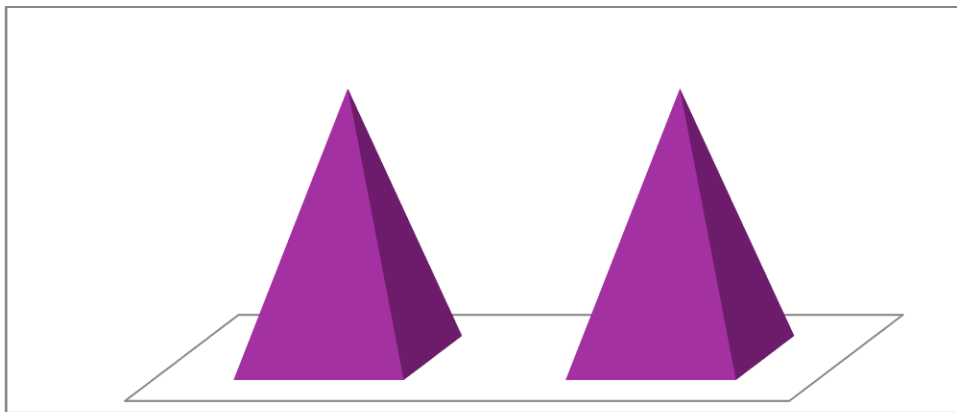
|                                               |        |    |      |       |       |       |
|-----------------------------------------------|--------|----|------|-------|-------|-------|
| <b>CBSE<br/>board<br/>school<br/>teachers</b> | 31.009 | 14 | .000 | 68.03 | 64.03 | 73.04 |
| <b>UP<br/>board<br/>school<br/>teachers</b>   | 56.708 | 14 | .000 | 87.83 | 85.35 | 92.31 |

**\*Significant at 0.05 level of significant  $t(14)(0.05)=2.145$**

Table: II results show that the CBSE board school teachers Neuropsychology received 't'-value is 31.009 and this value is significantly higher than the tabulated 't' value 2.145 at 0.05 level of significance

UP board school teachers Neuropsychology received 't'-value is 56.078 and this value is significantly higher than the tabulated 't' value 2.145 at 0.05 level of significance

### GRAPHICAL REPRESENTATION



### Result:

According to Table II, the 't' value for CBSE board school teachers is 31.009, while the 't' value for UP board school teachers has been calculated as 56.078. The 't' value for UP board school teachers is significantly higher than that of CBSE board school teachers. The mean difference measured for CBSE board school teachers is 68.03, whereas for UP board school teachers, it is 87.83. The mean difference for UP board school teachers is substantially higher than that of CBSE board school teachers. Therefore, it can be concluded that the neuropsychology of UP board school teachers is significantly higher compared to that of CBSE board school teachers.

### Conclusion

This study was conducted to compare the neuropsychological profiles of teachers from CBSE and UP Board schools. In this study, neuropsychology serves as the independent variable, while the teachers from CBSE and UP Board schools constitute the dependent variable. A total of 40 teachers—20 from CBSE schools and 20 from UP Board schools—were selected for the study. The findings indicate that teachers from UP Board schools exhibit superior neuropsychological profiles. This superior profile is attributed to factors such as a balanced diet, greater social interaction, and

stronger economic stability. Furthermore, the study aims to raise comprehensive awareness regarding neuropsychology among teachers from both CBSE and UP Board schools.

**Reference:**

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- 3. Joshi Chandrawati (2015)** examined teacher effectiveness and occupational stress in Relation to Emotional Intelligence.
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