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## **TITLE**

# **EFFECTS OF TEACHING CHEMISTRY USING CONCEPT MAPS ON STUDENTS' ACHIEVEMENT IN SCHOOL CHEMISTRY IN INDIA AND TURKEY**

## **ABSTRACT**

A concept map is a form of two dimensional diagramming that emphasises the relationship between concepts. According to many research conducted on concept mapping indicate that concept mapping is one of the best instructional tool that can be used by teachers to generate a meaningful discussion of students' ideas. The potentials of concept mapping motivated the researcher to study the effectiveness of concept mapping strategy as an instructional tool for teaching chemistry in schools of two different countries. The design of the study was quasi experimental Pre-test and post-test non equivalent group design. The sample comprised of 200 students of two different central schools of New Delhi and 200 students of two different state schools of Gaziantep. In the light of six objectives, nine hypotheses were formulated. Pre-achievement test and post-achievement test were used for data collection. After the collection of data, mean( $\bar{x}$ ), standard deviation( $\delta$ ), t tests and f tests were used as inferential statistics. Hypotheses are

tested at 0.05 level of significance. The findings of the study determine that; concept mapping model is significantly more effective than conventional method of teaching in chemistry in terms of overall achievement, understanding and problem solving ability in IX<sup>th</sup> class students in the schools of India. Concept mapping model is significantly more effective than conventional method of teaching in chemistry in terms of overall achievement, knowledge and understanding in IX<sup>th</sup> class students in the schools of Turkey. It was concluded that concept mapping could be used by teachers as an effective teaching strategy in IX. Class chemistry education.

**Key words:** concept map, concept mapping strategy, effective teaching strategy, chemistry.