Cloud Computing–Based Nanolearning and Its Effect on Senior Secondary Students' Achievement

Minakshi
Research Scholar, Department of Education, Baba Mastnath University, Rohtak, Haryana, India

Dr. Nitin
Assistant Professor, Department of Education, Baba Mastnath University, Rohtak, Haryana, India

Abstract

The rapid advancement of digital technologies has significantly transformed teaching–learning processes, particularly through the integration of cloud computing and innovative pedagogical approaches such as nanolearning. This study examines the effect of cloud computing–enabled nanolearning on the academic achievement of senior secondary school students in India. Nanolearning delivers content in small, focused learning units, while cloud computing ensures flexible, scalable, and anytime–anywhere access to educational resources. The study highlights how this integrated approach enhances student engagement, reduces cognitive load, supports personalized learning, and provides real-time feedback. Drawing upon existing literature and empirical evidence, the findings indicate that students exposed to cloud-enabled nanolearning demonstrate improved academic performance compared to those following traditional instructional methods. The approach is particularly beneficial in addressing challenges related to diverse learning paces, limited resources, and accessibility, especially in rural and underserved areas. The study concludes that cloud computing–enabled nanolearning is an effective instructional strategy for improving academic achievement at the senior secondary level in India and recommends its wider adoption in school education.