SUMMARY

The current method of teaching science in primary schools is often didactic and does not engage pupil’s prior knowledge actively (Toh, Ho, Chew & Riley, 2003). Instead of understanding science concepts, pupils tend to view science is a piece of information. Making conceptualization, clearing misconception, generating idea, validation of scientific knowledge and cultivation of recent ideas are the emerging attempts in science teaching and learning process. (Novak, 1993). The present study was conducted in the schools of Chandigarh, selected by the random sampling technique. A sample comprising of 450 students were administered three test of achievement in Biology, self-efficacy scale and motivation to learn Biology tool. 450 students were further divided into three groups, two experimental groups and one control group. The experimental groups were taught through individualistic and collaborative computer supported concept mapping strategy, and control group was taught through conventional teaching strategy. In order to analyze the data, 3×2×3 Analysis of Variance was used. Instruction Materials for all the teaching strategies and motivation to learn biology scale were developed by the investigator herself and Self-efficacy scale by Jerusalem and Schwarzer (1995) was used. The findings of achievement and retention of students in biology reveals that the achievement of group taught through different teaching strategies was more effective than that of conventional teaching strategy. There was a significant interaction effect of teaching strategies and motivation to learn biology group on achievement and retention in biology. There was a significant interaction effect of self-efficacy and motivation to learn biology group on achievement and retention in biology.