

Abstract

This research work examines effects of use of animations on learning and teaching of physics. In addition, Perspective of teachers regarding improvements to be achieved in learning of physics through animation and in teaching too is also analyzed. At first, list of secondary and higher secondary schools engaged in physics education in Karachi is established. The effects of animations on the learning of students tested through a lecture designed and delivered to randomly selected students (N=60) on topic "Uniform circular motion" by adopting the animation methodology (Sample-1) and a lecture on the same topic delivered to students through traditional methodology N=60 (sample-2) and then similar test from the topic was taken from students of (sample-1) who were taught Physics through animation methodology and (sample-2) students who were taught Physics through traditional methodology. Then results of those samples were analyzed through independent sample t- test. The mean value of test results of student of (sample-1) who were taught through animation is 8.8167 and students of (sample-2) who were taught without animation is 5.9667. These mean values show the positive effect of animation on learning of physics

For analysis of the Perspective of teachers, regarding improvements to be achieved in learning of physics through animation and in teaching as well a survey questionnaire was built-up and spread between 50 Physics teachers of secondary and higher secondary schools in Karachi from which 42 returned back completely filled. The questionnaire was designed to understand the observation of the physics teachers on the outcome of animations on teaching and learning of physics education. Questionnaire reliability is 0.890. Total of 24 items, 17 items in questionnaire related to "Perspective of teachers regarding improvements to be achieved in learning of physics" and seven items regarding "Perspective of teachers regarding improvements to be achieved in of teaching physics". More than 80% of the respondents agreed that Animation create positive environment for learning in classrooms. Other encouraging features of animation on learning are it can produce constructive learning environment (85.7%), it offer pleasure to learning (90.4%), and it can inspire imagination between students (90.5%). Most of the respondents were sure that 'Animation can cause student to score more in tests " (83.3%) and

'Students' thinking advance with the usage of animation' (85.7%). In last step, views of teachers were also compared with respect to gender, qualification, experience, and subject by chi-square test significance level. The results show that all teachers in their views have positive effect of animation on teaching and learning of Physics.