

ICT based learning environment and achievement of students in Chemistry among G.C.E Advance Level students in Kurunegala District of Sri Lanka

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Abstract

Utilization of ICT is acknowledged as a cognition implement for pupils and has acknowledged how pupils who are confident and proficient in ICT can bring with them opportunities for elongating their cognition as they utilize their ICT in other subjects in the school curriculum. The expeditious growing accessibility and capability of emerging technologies have fashioned brobdingnagian opportunities of scheming, developing and instigating innovative edifying methods in the classroom. The ecumenical technological scenario has paved the way to incipient pedagogies in edifying-cognition process fixating on technology predicated learning environment and its impact on student achievement.

The present experimental study was conducted to determine the effectiveness of technology based learning environment on student achievement in chemistry. A pre-test post-test equivalent group design was used to compare the accomplishment of the two clusters. A Pre-test and post-test comprising 50 pieces each from Chemistry textbook were developed and administered. The amassed data were statistically analyzed. The results showed that there was a consequential distinction between the mean scores of Experimental group and the Control group. The performance of Experimental group was better on post-test scores that indicted that edifying through technology predicated learning environment enhanced the achievement level of the students. When compared with the results in post-test, it is pellucid that the students performed better when edified in technology predicated learning environment and it avails students develop the faculties of cognizance, comprehension and application as the items of achievement tests were predicated on these quantifications.

On the basis of the results, it was recommended that teaching and learning through information and communication technologies may be adopted to

enhance the Chemistry learning competence of the schoolchildren. Technology based learning environment might be stimulated and provided to heighten the achievement level of the students in chemistry subject. Through the use of technology interest may be developed in the students who are slow learners.

Keywords: Chemistry, student achievement, ICT based learning, GCE A/L students