

**DEVELOPMENT OF A COMPUTER BASED STUDY PACKAGE:  
STATES OF MATTER FOR G.C.E. A/L CHEMISTRY**

A PROJECT REPORT PRESENTED BY

SAMAN KUMARI LAGGODA

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## ABSTRACT

**S. K. Laggoda**  
Postgraduate Institute of Science  
University of Peradeniya  
Sri Lanka

Chemistry education in school has been dulled by lists of unrelated facts and theories without application, as a result of excessive dependence on theory and memory for the G.C.E.(A/L) examination and with the traditional methods of teaching. It is absolutely essential to pay more attention to learn with understanding rather than mere memorizing facts and theories.

In order to gain an understanding about the influence of new media and technology in schools, a questionnaire was prepared and administered to obtain ideas about the use of computers for their teaching and learning process. Thereafter a package was developed. The unit eleven of the G.C.E. A/L chemistry syllabus, "states of matter" was selected through the survey. Four science classes of grade 12 from two schools were selected for the evaluation. There were two groups in each school, namely a control group and an experimental group. For both groups, the unit was applied with traditional teaching methods. At the end of each lesson, students of the experimental groups were given a chance to learn with the package. Then the same test paper was given to both groups and the marks of the test were analyzed to disclose whether there is any significant difference between the two methods.

It was revealed, that the use of computer assisted learning increased students understanding about this unit. In addition, successful use of computers for teaching and learning process helped them to develop other skills such as creativity, self assessment and planning of studies, information technology skills, and self motivation etc. It moves towards active learning. Therefore, computer based learning is one of the suitable approaches to increase the knowledge of this unit and teachers should pay attention to the use of computer to enhance the teaching and learning process in chemistry.