Exploring the Efficacy of Computer Assisted Learning in Addressing Alternative Frameworks Among Learners in Science

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Abstract

The study explores the teaching learning contexts in science classrooms with respect to two aspects. The first aspect is related to the teachers' natural dispositions towards formation and addressing of the Alternative Frameworks and the second aspect to the possible sites of formation of Alternative Frameworks among learners of science. An attempt to understand the science teachers’ perceptions about Alternative Frameworks in relation to the use of Computer Assisted Learning has also been made. This understanding has been used further in two ways – firstly, for identifying the characteristics of a desirable computer-assisted learning program as per the perceptions of science teachers and secondly, for evaluating the features of some of the existing computer-assisted learning programs in science. Significant implications on Science Education have emerged on the basis of the findings of the study. Also, a need to develop an appropriate Computer Assisted Learning Program for addressing Alternative Frameworks among learners of science has emerged. The analysis of data gathered from the science teachers reveals that such a Computer Assisted Learning program may enable the science teacher to meet the challenges, which at present, are being faced to a large extent and the teachers are not able to address them. The findings of the study reveal that the issues of availability, awareness and the experience of using Computer Assisted Learning program/s among science teachers also need to be addressed. The findings contribute towards developing an understanding of the characteristics of a desirable computer-assisted learning program that can be used for addressing Alternative Frameworks among learners of science.