

ABSTRACT

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Topic	<i>A Study of Factors Affecting the Use of Computers by the School Teachers in Teaching - Learning Process</i>
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The present investigation attempted to look into certain factors, which believed to have significant impact on the ways of computer use; comprising CAL (computer-aided learning), CMI (computer-managed instruction), and CAI (computer-assisted instruction) uses of computers by teachers in teaching-learning process. After the review of the literature, some of the most influential factors that were found to affect the use of computers by teachers were attitude of teachers towards use of computers, teachers' access to computers, school support to teachers in use of computers, training of teachers in use of computers, competence of teachers in use of computers. The main objectives of the study were - to study use of computers and factors affecting use of computers by school teachers in teaching-learning process; to study relationship between computer use and various factors affecting computer use; to study contribution of independent variables (factors) in predicting the dependent variable, i.e., use of computers by teachers; to study teacher-perceived barriers to computer use; to study teacher suggested practices for improving teachers' access to computers; school support in use of computers; computer training opportunities; computer competence of teachers.

Three hundred teachers of different grades, teaching various subjects, from twenty Kendriya Vidyalayas of Delhi region constituted the sample of study. The data was collected by employing a self constructed questionnaire. Various statistical techniques like descriptive statistics, product moment coefficient of correlation, regression analyses were used for data analyses.

The study revealed that amongst the three components of computer use, CAL was the most popular while CAI was the least popular. The teachers' attitude towards use of computers was found to be positive. It was found that the computer access to computer was less than satisfactory; in particular, computer location ranked the lowest amongst all aspects of computer access. Schools were providing sufficient support to teachers in terms of maintenance, technical assistance, and expert guidance; however, there was a scope for further improvement in provision of support related to time, incentives and encouragement to teachers in use of computers. Overall, the level of training facilities was found to be satisfactory; however, there was definitely scope for further improvement in providing more regular and relevant hands-on computer training. Although a large section of the teachers had knowledge of computers and could comfortably use computers in computer-based instructions, the level of skills might need to be continuously enhanced through regular trainings. The study identified several areas related to competence of teachers in use of computers which needed special attention. All the factors under study were found to significantly influence teachers' use of computers. Out of the five independent variables under study, training of teachers in use of computers had the greatest predictive value for teachers' use of computers in teaching-learning process, followed by competence in use of computers and access to computers.

The study also revealed that the strongest barriers to teachers' use of computers were insufficient time to plan, prepare, and present computer based lessons; access to hardware and software; support; training; and competence. The prioritized list of suggestions to improve teachers' access to computers included improving placement of computers and availability of hardware-software resources. Suggestions to enhance school support included sufficient allocation of time for computer-based instruction; increased technical assistance; custom-made computer based instructional software. The teachers placed considerable emphasis on training requirements and suggested training on software applications; internet; typing; as well as ethical issues and current trends in technology. The teachers also recommended continuous assessment of their computer knowledge and skills as a way to improve their competence in use of computers in teaching-learning process.