



## SUPPORT OF COMPUTER-AIDED LEARNING SYSTEMS IN DISTANCE LEARNING

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### ABSTRACT

Computer-Aided Learning Systems provide their support in many different areas. One of the areas in which computer-aided learning systems have a great potential is that of distance learning. Distance learning is a kind of learning when there is no face to face contact with the teacher and teaching is delivered to the students who are not

physically present in a class room. It provides learning when there is time and distance separation between the learners and source of information. The distance learning allows to learn around work and home life. This work presents the support of computer-aided learning systems in the field of distance learning.

**KEYWORDS:** Computer, learning, systems, distance, education, teaching, computer-aided learning.

### INTRODUCTION

Computer-aided learning systems are software packages which are supporting the learning of learners since many years. Computer-aided learning systems increase the flexibility of education by eliminating limitations on time and place. Computer-aided learning systems support learning by providing many facilities to the learners such as enhanced communication, increased interaction and better understanding of the subject.<sup>[1]</sup> The computer-aided learning systems have many of their benefits in the field of distance learning. They attempt to increase the independence of users, the quality of learning and hence the efficiency of the learners. Learning systems reduce the cost and time of attaining educational goals. These systems help learners to increase their knowledge in a particular subject area by

providing many tools.<sup>[2]</sup> The computer-aided learning systems can be used both for on campus and off campus courses. Many of the on-line and off-line learners are taking advantage of learning systems to complete their education.

## OBJECTIVES

The main objective of this research work is to study various aspects of computer-aided learning systems so that the best possible support can be provided to the learners at distance. So the aim of this research work is to cover all the aspects related to the computer-aided learning. To complete this work, the field of computer-aided learning and distance learning are taken into consideration. A deep study has been done in both of the fields to find out the facts.

## FINDINGS

Computer-aided learning is the process of learning which happens through computers with the help of computer-aided learning systems. Computer-aided learning covers a broad range of applications and provides support in a many subject areas. Distance learning is one of the areas in which computer-aided learning has a great importance.<sup>[3- 5]</sup> Computer-aided learning provides interactive tuitions and simulations to support learning of the students. It contains multimedia enriched contents which makes learning effective and motivate students to learn in a better manner. The technology also plays an important role in the field of computer-aided learning.<sup>[6]</sup> Modern information and communication technologies help to improve the process of teaching and learning. The introduction of information and communication technology into distance learning has brought a revolutionary change. It has changed the trend of traditional teaching towards new educational processes and functions.<sup>[7]</sup> It helps in improving the quality of education by offering lots of possibilities to the learners. The education is now no more limited to classrooms only. It has reached far and crossed the barrier of distance. All of this happened because of the computers and technology.

It has been observed from the study of earlier developments that the learning systems provide their support in many of the areas related to distance learning. Distance learning has gained tremendous significance in many developing as well as developed countries. Distance learning being a flexible and cost effective option emerged as an alternative of higher education in many developing countries.<sup>[8]</sup> In the past, people have a misconception concerning distance learning that the distance learning is supposed to be entirely self study with simply the supply of virtual study materials. However if truth be told, this doesn't hold

true anymore.<sup>[9]</sup> Distance learning is now being used by many learners to fulfill their educational needs. Distance learning has changed its shape with the advancement in technology.

The computers and networks have their great role in the development of computer-aided learning systems. They support learning by providing facilities like transmission of information, distribution of course contents and so on.<sup>[10]</sup> The role which computers and computer networks can play in the process of learning, and in particular distance learning, is that they can provide medium through which students can receive feedback.<sup>[11]</sup> They also provide a means of facilitating a degree of interaction which cannot be possible otherwise.<sup>[12]</sup> The use of computers and networks in education can therefore help to address the problems related to the learning of the learners and the problems associated with distribution and dissemination of course material.<sup>[13]</sup>

The study of earlier developments states that there are many computer-aided learning systems which have been developed for the purpose to support distance learning. These systems support learners and make the process of learning interesting and effective.<sup>[14]</sup> The review of computer-aided learning systems reveals that further investigation is required in the field as the learning systems developed earlier lack in many facilities. They are designed specifically to support a particular course and they do not support any other course.<sup>[15]</sup> The learning systems developed lack in communication as well. The communication between students and tutors is a big concern, the lack of which makes students feel uncomfortable and affects their studies.<sup>[16]</sup>

It has also been observed that there is limited support to practical and group work.<sup>[17]</sup> Lack in this facility make it difficult to support courses with practical and group needs. It has also been found that interaction plays an important role in the development of learning systems, so there is need of further investigation with regard to this area as well.<sup>[18]</sup> Preparation and proper delivery of course material is also a challenge.<sup>[19]</sup> There are certain other areas which require further consideration; these areas include the role of teachers and technology, quality of instructions and understanding of learner's requirements.<sup>[20] [21] [22]</sup> All such factors play an important role in computer-aided learning systems and so need great attention while considering the development of computer-aided learning systems.

## CONCLUSION

The computer-aided learning systems support distance learning in many ways by providing many facilities and tools to the learners. It has been observed from the earlier studies that there is need is to make further investigation in the field so that the best possible support can be provided to the learners. The developments are going on into the field to make further improvements. With the advancement in technology, the better options will be available and so the better results will be there. This work will provide help to the researchers and developers to make further developments in the field. This work will also open the ways to find out the better facilities to the learners at distance.

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