



Collaborative Learning in e-Learning Environment

Friba Farhat Popal, Research Scholar, School of Education, Lovely Professional University, Phagwara (Punjab)

Dr: Satish Kumar, Assistant professor, School of Education, Lovely Professional University, Phagwara (Punjab)

ABSTRACT

Collaborative learning and interactive electronic-learning (e-learning) are the key factors for the success of this educational system. The aim of this study was to investigate the position of such learning with a glance at the role and influence of constructivist theory in e-learning environments. This is a review article and databases such as Scientific Information Databases, Science Direct, and Google Scholar were reviewed. Also, published resources such as books and papers were also considered.

The result of the review showed collaborative learning has a crucial role in e-Learning goals attachment. Also, e-learning could be effective in education quality. The learning and motivation of students have a significant relationship with the interaction and collaboration in e-learning methods. So the special attention for using scientific approaches needs from organizations and universities who apply the e-Learning.

KEYWORDS: Collaborative learning, e-learning, e-learning environments.

INTRODUCTION

The twenty-first century is the movement of societies towards central knowledge, the participation of knowledge and change in the axes and basic concepts of life, including education in terms of quantity, quality and speed of presentation

E-learning is one of the most well-known learning and informative environments. which in addition to providing the teaching and learning process, by providing rich educational content, plays an important role in the sustainable development of the information society and educational systems of different countries.(Reymond,2016)

E-learning connects technology and education. On the other hand, the issue of improving the quality of medical education has always been considered and is becoming more and more important. In the teaching of medical science courses in other countries, there has been a growing trend to replace traditional teaching with e-learning to meet the needs of students in terms of ease of access to information and other technological capabilities.

The use of the Internet and other information technologies as teaching and learning tools is now rapidly expanding into multidisciplinary requirements in the field of education. These tools should be considered as facilitators rather than alternatives to face-to-face training. Interaction is a two-way street that requires at least two objects and two actions, and it happens when these objects and events interact with each other. The main feature of e-learning, in addition to easy access to information, is its communication and interactive feature, which is philosophically based on a constructivist and participatory perspective. Constructivist learning environments are organized in such a way that there is enough opportunity for learners to interact with classmates, teachers, and other educators. As a result, the main concern in participatory learning design is ways to increase the likelihood of this interaction occurs. Personal assessment tools help people work together and be educated over long distances. This allows them to share their ideas and learn about their feelings. These tools are essential for e-learning.(Gumus,2010).

In recent years, online collaborative learning has been a major area of research in educational technology. Over the years, most researchers in this field have expressed optimism about the benefits of this form of learning. The main goal of online participatory learning has been to provide creative learning strategies to prevent low-level learning in distance learning networks based on the network and the Internet. The aim of this study was to investigate the position of participatory learning with a glance at the role and influence of constructivist theory in e-learning environments. The Commission on Technology and Learning (2001) considers e-learning to include all learning and teaching experiences that are provided through electronic technology such as the Internet, multimedia, meta-media, audio-visual tapes, satellite broadcasting, interactive television, and CDs. One of the factors that can lead to the development of participatory skills in learners is the use of active teaching methods. Participatory learning is one of these active teaching methods. The basic elements of participatory learning may seem necessary for all interactive methods. The participatory method refers to a type of learning method in which learners in groups of 6 or 4 people help each other to learn the material.

The most common definition of collaborative learning refers to the situation in which two or more people learn how to learn. Different interpretations can be made of each component of this definition. Two or more people can supervise a couple, a group of three to five people, a class (including twenty to thirty people), a community (including several hundred or a few thousand people), or a community (including several thousand or millions). Being together can be associated with different forms of interaction, Such as face-to-face interaction, computer interaction, and simultaneous or asynchronous interaction. This cooperation can also be in the form of a real effort together or an activity that is systematically divided between people. Accordingly, learning from two people through problem-solving activities simultaneously over a period of one or two hours to the activities of a group of students who have been using e-mail for a period of time is referred to as participatory learning. An important feature of this method is that the members of the group work together to achieve a common goal that benefits both the whole group and the individual members of the group. (Eom,2006)

The e-learning environments that have become part of the global network allow teachers and learners to form their own learning communities. These virtual communities are formed and interact wherever a group of

learners discusses. As a result of these relationships, the evolving spaces create robotic electronics. It is in such environments that teachers and learners participate in intellectual and intelligent conversations using computers and words and the settings they set on the screen, make appointments with each other, and exchange knowledge by exchanging their thoughts. Share each item especially with each other. By doing so, they are effectively influencing each other's future plans by providing psychological support. They create ideas and thoughts, and by learning from each other's culture, they create an understanding that, in turn, expands each other's intellectual horizons. In fact, it is similar to the interactions in traditional classrooms, and the only difference between its coach and the traditional interactions that took place in classrooms is that these familiarity groups create friendships and relationships at the global level.

METHODOLOGY

The method of this article is a review. Search engines and reputable databases such as Scientific Information Database, and Science Direct, Google Scholar library studies and some of the literature review of my research work for my dissertation by the title of “perception of university students towards e-learning technologies” and published scientific books and articles have been used to collect information. The keywords of e-learning, virtual space, web-based learning, collaborative activities, collaborative learning, and collaboration in learning were searched and during this process, 41 related sources were found in the period 2005-2018, of which 25 sources were used.

FINDINGS

E-learning from a philosophical point of view is based on a constructivist and participatory perspective. In the psychology of constructivism, the learner actively builds knowledge through constant interaction with the environment. Thus, it is assumed that knowledge depends on the learner, and under the same conditions, people come to different knowledge. In general, constructivist-based teaching is a student-centred approach that emphasizes the active participation of the learner in knowledge acquisition (Brover,2008).

Constructivists' beliefs about learning are the complete opposite of traditional beliefs, in which students are presented with limited facts and concepts and then asked to accumulate them in their minds. Knowledge depends on the past structures of man. We can know the world only through our mental framework, and we use this framework when changing or sorting and justifying new information. The more we interact with our environment and try to make sense of our experiences, the more this mental framework is constructed and evolved. (Aziz,2018). Many theories play a role in our understanding of collaborative learning with computer support. These theories include socio-cultural theories and adjacent growth, constructivist theory, self-regulated learning, situational cognition, cognitive practice, problem-based learning, cognitive and collaborative flexibility theory, and Salomon et al.'s collaborative cognition. It is assumed that the active agents with a specific method are in search of and constructing knowledge in a meaningful field. Computer-assisted learning aims to provide a reliable and multidimensional environment that is tied to the learners' prior knowledge. Computer-assisted systems are cognitive tools that can connect people through technology to form a shared vision that human resources contribute to a group process. Opinion theories, with a participatory approach to e-learning, assume that active-duty

individuals with a distinct approach are meaningful in the search and construction of knowledge in a context) (Chang, 2011).

Computer-assisted learning aims to provide a reliable, multidimensional environment that is tied to the learners' prior knowledge. Computer-assisted systems are cognitive tools that can connect individuals through technology to form a shared vision that human resources share and link together during a group process (Aziz, 2010).

It is obvious that participation activities improve the quality of learning. Participation plans and methods, inspired by structuralise learning theory; require the active participation of learners in the learning process. Face-to-face communication is an important factor that does not reduce uncertainty. In order to accurately design the participatory learning situation, it is necessary to increase the stage. Did the member of the group assign a few members of each group to themselves? Did the group arrange for the formation, or did the same level of knowledge, similar views, be formed according to the view of the spouses, or did this not matter? The non-specification of the participant's progress is based on the scenario in which the roles are specific. The three types of exchanges in building and maintaining participation in learning a community are important in sharing information among learners. First, it makes them feel uncomfortable and asks a few questions, and second, it provides them with the necessary timely support; Third, in order to promote work knowledge and learn to participate, it is desirable to provide an environment in which communication is encouraged. It is simplistic to assume that teachers in cyberspace no longer have a serious and obvious role to play. In this case, the teacher will teach the learners a little bit of access to information and its use. Teachers will teach students to formulate questions and deal critically with what they help in the network and the role of the teacher in learning the environment. Introduction to the time and manner of intervening in the process of learning e-learning, understanding the electronic resources for the learner, familiarity with how to establish a balance between learning how to learn, how to learn and guide skills by creating opportunities for independent thinking and work. It is a virtual space. Science does not play a role in learning to participate. This section becomes more important as the number of members of the group increases. This role is facilitative, not teaching. In fact, here the teacher does not explain the correct answer to me or does not specify the group that answered correctly; Rather, it is at least intervening in the learning process (in terms of hints and guidelines), and its role is actually to direct the group's work beyond the creative and supervisory work. For example to find out, if any of the members of the group are not involved with the rest of the group interactions (Mahmood, 2018)

DISCUSSION AND CONCLUSION

One of the most important aspects of using new technologies, especially computers and the Internet in education is their ability to communicate interactively. E-learning is a virtual learning environment in which the learner interacts with content, other learners or educators through tools and information and communication technologies. Thus, interaction and electronic communication make a different kind of interaction than what happens in traditional education. In an e-learning environment, the learner and the learner are separate from each other in terms of time and place, and the learner interacts with the learner, classmates, and other individuals or resources to perform individual and group learning activities with few computer facilities. Since interaction is the

main type of activity in the teaching-learning process and learning is the result of the interaction of educational elements, in e-learning environments, if students are expected to reach a level beyond knowledge, they must engage the learners' experiences. Provide them with opportunities to interact with information and other learning elements such as other learners and teachers. When creating collaborative learning communities, planners need to pay more attention to technology than anything else. In fact, the conversation begins with explaining the goals and determining the individual and group competencies needed. Learning objectives may be defined to support filling the gap between desirable and existing capabilities. Common Skills A group process that is known to all coaches, such as facilitating, introducing, setting expectations, and ensuring equal participation, needs to be applied in the online world. (Reymond, 2016) Unlike learning in a classroom, e-learning is a single process; However, learners generally need to communicate with each other in order to express their opinions, complete the information provided, receive feedback, feedback, and identify gaps in their knowledge. What's important about creating an e-learning environment that can make learning more accessible is the ability for learners to share their experiences and learn through collaboration.

The first concern in participatory learning is the design of methods to increase the likelihood of this interaction occurs (Buzzetto, 2015).

Online learning gives us new experiences. Due to its textual, visual and audio-visual media capabilities, electronic communication technology is able to develop people's interactions and transform teaching-learning activities. Although the extensive effects of these technologies have been identified and much has been discussed, developments in the field of communication technology and the application of these technologies, especially in the field of education, with our understanding of How they are used properly to improve educational experiences has not been the same. One of the major challenges in e-learning is the lack of clear guidelines for designing communication processes and, consequently, the formation of an effective learning experience. The structural complexities and unique characteristics of online learning in support of participatory learning interactions and communities create a context in which simple solutions no longer seem to be sufficient. Achieving an effective and in-depth e-learning experience requires awareness of the participatory elements and a new approach to systematic human interaction and communication (Brover, 2008).

It is true that the possibilities of communication grow in cyberspace, but this problem may also occur if the interactions that take place take the form of this or that and block the learner in space and space; Therefore, the use of virtual facilities is not only to create a wide range of opportunities, but also methods that organize educational activities, play a role in the learning set and show the importance of learning and developing their skills. E-learning is one of the innovations that are still being adopted in many countries and organizations. E-learning, using emerging technologies such as the Internet,, email, blogs, webcams, audio and video conferencing, chat rooms, etc. Provides; this has been possible in the traditional process of teaching in a very limited and insignificant way. Learning in groups and communities suggests forms of learning that are inherently participatory. The term "collaborative learning" refers to the way in which learners work together at different levels in coaching groups for a common purpose. Learners are as much responsible for learning as they are for others. Participatory learning

is not only a classroom method, but also a pervasive philosophy. In all situations, when people gather in groups, participatory learning is a way to respect the abilities and roles of each group member. , It has been suggested. In this type of learning, the division of power and acceptance of responsibility is done by the members of the group. The basic premise of participatory learning is based on unanimity, which is built on collaboration by group members. Participatory learning has taken many forms. One of these forms is participatory network learning for self-centred adult learners (Zofan, 2015)

Collaborative learning through the network aims to bring together learners through Internet-connected personal computers by focusing on learners' work as a "learning community," sharing resources, knowledge, experience, and responsibility through two-way collaborative learning. Therefore, professors, teachers, and those involved in e-learning should be familiar with the various types, forms, and tools of competing competencies in order to achieve effective learning and learning. Interact in different educational situations to achieve the ultimate goal of education, which is effective learning. E-learning alone does not create effective and in-depth learning. In fact, regardless of the basic components of human learning, the advanced use of the latest technologies is futile, and the only type is the use of advertising rather than education. Therefore, it is suggested that in order to design effective e-courses, in addition to considering all the factors influencing the failure of previous projects, a centralized approach based on human learning and not only on management, organizational needs or new electronic tools should be considered. Instead of thinking about the return on investment, they should focus on the learning process. In addition to adapting and applying new innovations, special attention should be paid to the exact needs assessment of science, their educational applications, and learning focus. Otherwise, there is no result other than cost, waste of time and loss of delivery.(Zofan,2015)

In curriculum planning, it is important to find a special place for broad-based culture in relation to the benefits and advantages and disadvantages and threats of e-learning in general and e-learning in a particular way at the school level, among principals, learners and especially, Because, ultimately, most teachers, because of their insufficient familiarity with the latest teaching technologies, mostly tend to use the same style and traditional method of learning. In this paper, collaborative e-learning is presented to develop learners' interpersonal skills, which can be used to develop online collaborative learning environments. It is expected that the designers, teachers, and professors of online courses will pay more attention than ever to the new communities of learners, recognize the features of emerging educational structures and be able to use the right tools to achieve the great goals of education.

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