

THE IMPACT OF FIRST AID AWARENESS COURSE THROUGH KNOWLEDGE MANAGEMENT-BASED E-LEARNING SYSTEM

S. Prakasam*

ABSTRACT: The rapidly growing use of technology in education is changing the way in which knowledge is produced, stored and distributed. Online education has already been accepted as the way of the future; knowledge may be distributed across both time and space. Knowledge Management (KM) techniques can be used to capture, organize and deliver this knowledge and management systems can be used to quickly identify the most relevant information and distribute it to meet specific needs. In this paper, light is shed on the basic concepts of KM and e-learning. A discussion on how KM and e-learning can be integrated and leveraged for effective online education and training is presented. The study intends to analyze and find out the difference between the traditional teaching method and teaching by using e-learning among the students of SCSVMV in concepts of First Aid awareness course. The study results show that the systematic use of Knowledge management based e-learning system as a part of the instructional design process has improved the quality of teaching and learning.

Keywords: knowledge management; knowledge management models; knowledge management processes; e-learning systems.

1. INTRODUCTION

In recent years the rapid and continuing evolution of technology has converted our world into a knowledge society. Recent research reveals great interest in introducing Knowledge Management (KM) ideas to e-learning systems. It is argued that KM can facilitate an e-learning system (Prakasam, 2011). The joint studies of KM and e-learning point out the same fundamental goal: Facilitating organizational learning. Researchers try to analyze the similarity of the goals, methods of assessment and some knowledge-sharing processes both in KM Based e-learning.

2. KNOWLEDGE MANAGEMENT PROCESSES AND SYSTEMS

A strong technological infrastructure is a prerequisite for implementing KM successfully. However, the technological aspect is not the whole aspect of KM. There is also a human-oriented approach that focuses on the management of the developers and owners of the knowledge and their activities. The purpose of a KM system is therefore to organize the storage and manipulation of knowledge. Its basic functionalities are to generate, store, distribute and apply knowledge (Prakasam, 2011). The processes that can be seen in a typical KM system are depicted in Figure 1. The knowledge management processes The following are the KM processes that usually take place in a typical KM model in the context of learning:

Knowledge creation and acquisition: Depend on nurturing people with knowledge - either individually or in teams or in communities of practice - and how knowledge

is or can be acquired. The focus is on passive or unconscious knowledge acquisition.

Knowledge sharing: This takes place when people are genuinely interested in helping one another develop new capacities for action; it is about creating learning processes.

Knowledge capture: Knowledge has to be selected, chosen and archived. Here the challenge is capturing tacit knowledge as well as explicit knowledge. It is important to establish processes in order to formalize knowledge preservation. This knowledge has to be captured and stored in databases.

Knowledge application: The knowledge created and captured would then need to be applied to achieve competitive advantage.

Knowledge evaluation: It must be reviewed to verify that it is relevant and accurate.

3. MAIN FEATURES OF KNOWLEDGE MANAGEMENT BASED E-LEARNING SYSTEMS

In Knowledge management based e-learning system, the complete cycle of the teaching and learning process should be fulfilled. Important functional aspects within this coverage must be followed. Many of them have been exclusively developed along with research in e-learning, while others have been adapted for e-learning requirements (Paranjpe, 2003).

Course creation: Throughout the instructors/teachers' experience, excellent knowledge on the creation process of e-learning contents has been developed. This knowledge covers pedagogical, psychological and instructional issues as well as technical questions. Nearly all relevant e-learning environments offer rich authoring functionality.

* Assistant Professor (SG), SCSVMV University, Enathur, Kanchipuram, TamilNadu, India, prakasam_sp@yahoo.com

Course management: This important feature includes not only the functionalities of course or class deployment on the basis of existing teaching material, but also all aspects of structuring and sequencing courses. The interface to external information sources is addressed as well as the integration of practice, test or feedback modules.

Course administration: Course administration includes user management, administration of access rights and all aspects of billing, which have been adapted from e-commerce and e-business solutions.

Learning, practicing and applying: The most important aspect of e-learning is the learning phase. This phase includes the consumption of learning content, all communication aspects and of course all questions addressing interaction, navigation and use of e-learning contents.

Assessment of student performance: An imperative part of e-learning is a continuing assessment of the learner's performance through examination and testing. Learners need to verify that they have succeeded in gaining new knowledge or skills. During this phase, the relationship between information and knowledge becomes visible with respect to e-learning. This is where it is seen whether students have been able to successfully turn information into knowledge or not.

Feedback: Effective e-learning environments try to collect and take user feedback into account. Again this is a characteristic that has not yet been completely discovered, researched or effectively implemented in most systems.

4. RESULT ANALYSIS OF KMBELS

A study has been conducted to measure the effectiveness of KMBELS among the students of SCSVMV University in concepts of First Aid awareness course. To measure the significant differences between the traditional teaching method (TTM) and teaching e-learning through Knowledge management based e-learning system (KMBELS)(Figure 1), the author collected samples from, Group - A of 1270 B.E students trained through traditional teaching method (Chalk & Talk) and Group - B of 1360 B.E students trained through Knowledge management based e-learning system (KMBELS), the total of 2630 students. The feedback has been collected from the students after the completion of their tests. From the analysis results (Figure 2) of the feedback given by the students it is clearly observed that there is significant difference between traditional teaching method (TTM) and teaching by using Knowledge management based e-learning system (KMBELS) among the selected groups of students in the knowledge on the 10 important concepts of First Aid awareness course in favour of KMBELS.

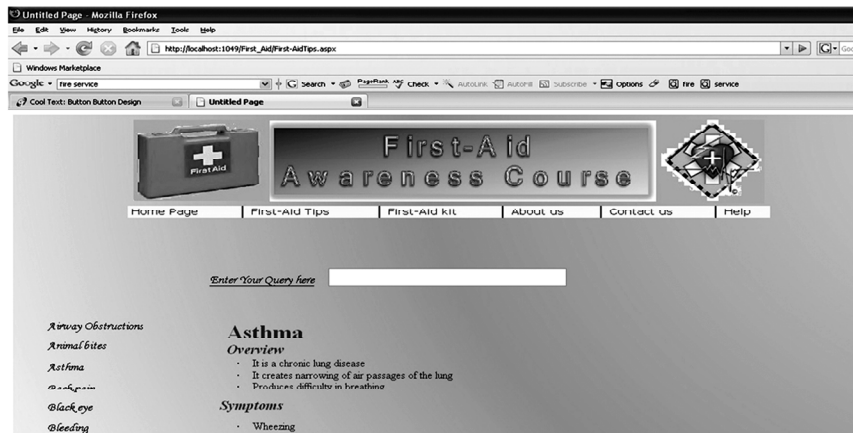


Figure 1: Home Page of First Aid Awareness Course

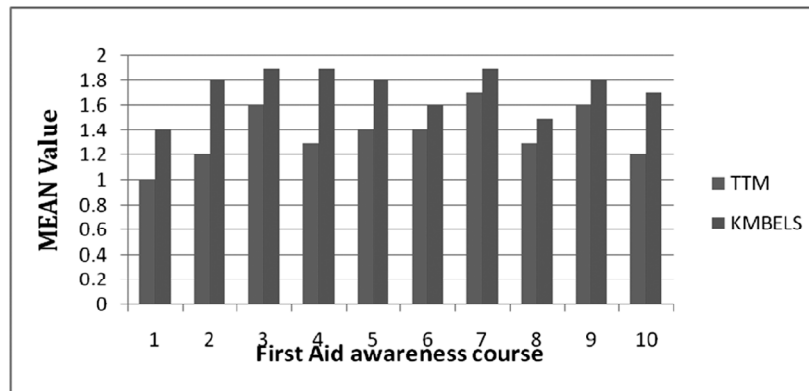


Figure 2: Effectiveness of TTM and KMBELS

5. CONCLUSION

The basic concepts of Knowledge management based e-learning system have been outlined. E-learning is considered in the context of formally and systematically organized teaching and learning activities, in which the instructor and the learner(s) use ICT to facilitate their interaction and collaboration. Emphasis was made on the basic characteristics of e-learning and KM. The main task of the research is to find common features of both domains. An attempt has been made to identify the areas in which KM concepts can be utilized in learning within organizations and e-learning systems. The use of Knowledge management based e-learning system will definitely impact the quality of the education that is delivered and the deliverability of information through knowledge and information sharing. In spite of some obstacles and limitations in the immediate implementation, it is clear that knowledge management and e-learning are the way of the future in the field of distance online education. The study results show that the systematic use of Knowledge management based e-learning system as a part of the instructional design process has improved the quality of teaching and learning.

REFERENCES

- [1] Denning S. (2000). *The Springboard: How Storytelling Ignites Action in Knowledge-Era Organizations*, Boston: Butterworth Heinemann.
- [2] Nonaka I. and Takeuchi H. (1995). "The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation", New York: Oxford University Press.
- [3] Paranjpe R. (2003). "Knowledge Management and Online Education", *International Conference on Open and Online Learning*, Mauritius.
- [4] S. Prakasam (2011). An Analysis on the Impact of Multi Agent Based e-learning System", *International Journal of Computer Science and Communication*, **2(2)**, July-December 2011, pp. 297-299.
- [5] Rowley J. (2000). "From Learning Organization to Knowledge Entrepreneur", *Journal of Knowledge Management*, **4(1)**, pp. 7-14.
- [6] Sherwood C. (2001). "Knowledge Management for E-learning", *International Conference on Engineering Education, Technical Tour, Oslo and Bergen, Norway*, 6-10 August.
- [7] Spector M.J. and Edmonds G.S. (2002). "Knowledge Management in Instructional Design", *ERIC Digest*, September.
- [8] Paranjpe R. (2003). "Knowledge Management and Online Education", *International Conference on Open and Online Learning*, Mauritius. 5. Rowley, J. (2000) "From Learning Organization to Knowledge Entrepreneur", *Journal of Knowledge Management*, **4(1)**, pp. 7-14.
- [9] Sherwood C. (2001). "Knowledge Management for Elearning", *International Conference on Engineering Education, Technical tour, Oslo and Bergen, Norway*, 6-10 August.