
Alternative uses of electronic learning systems for enhancing team performance

Jeffrey W. Alstete

The author

Jeffrey W. Alstete is Associate Dean, Hagan School of Business, Iona College, New Rochelle, New York, USA. E-mail: jalstete@iona.edu

Keywords

Teams, Technology, Learning, Innovation, Internet

Abstract

Web-based education and training programs are becoming widely offered at education institutions and companies today. The new electronic learning, or e-learning, systems employed by these programs may also be used by work teams at organizations for facilitating creative energy in a virtual context to increase team performance. Various features such as discussion boards, virtual classrooms, digital drop boxes, task lists, calendars, and other features of the e-learning systems can help teams work and communicate more efficiently. Explores potential features and strategies for team leaders and members to innovatively enhance team management and increase performance using e-learning systems as a support tool.

Electronic access

The research register for this journal is available at http://www.mcbup.com/research_registers

The current issue and full text archive of this journal is available at <http://www.emerald-library.com/ft>

Introduction

Technology is ubiquitous in business and education today, and electronic learning (e-learning) systems are becoming widely used tools for distance education/training and enhancement of regular in-person programs. Increasing overlap among educational institutions' and business organizations' approaches to organizational improvement is widely acknowledged (Alstete, 1995), and it is therefore not surprising that selected educational technology systems can be used for alternative goals to those for which they were originally designed. The new e-learning systems are an example of this, and can be used to facilitate organizational learning at corporations and educational institutions. Organizational learning by organizations matters now more than ever, because in today's hyper-competitive business environment managers must be able to discover opportunities, face problems and pursue innovative ideas (Yeung *et al.*, 1999), then turn those ideas into action throughout an organization. The e-learning platforms are very appropriate in this information age, because managers and team members in business and education are continually learning, especially while completing projects or working on assignments. Creativity should be encouraged, research capability enabled, and communication facilitated for teams in every way possible.

Teams can be more productive than individuals, more efficient in work practices, have a deeper devotion to tasks, and ultimately create a better product or service (Natale *et al.*, 1998). This is due in part to the way that work teams generate positive synergy through coordinated effort. The results of the team efforts are a greater level of performance than the sum of the individual member inputs (Robbins, 2000).

However, there are also concerns about team management that need to be considered. Peters (1992) writes that, even though more specialty expertise is needed and autonomy is encouraged, there is a necessity for membership in project teams with accountability (Peters, 1992). Organizations must therefore think of methods that encourage, acknowledge and reward autonomy yet facilitate team membership, offer structure and accountability. Because of their academic origins and related features,

the e-learning platforms afford teams a potential solution to this paradox offered by Peters.

How can e-learning systems be applied?

The different technology features used in the e-learning systems are not really that new, and have been used sporadically for team management for many years. An advantage of these comprehensive all-in-one systems is that they do not usually require expensive hardware and software to operate. Features such as e-mail, discussion boards, live virtual chat, document attachments, digital drop boxes, lists of Web hyperlinks and so on were available in various places at many organizations. Participants can use a regular home personal computer with Internet access. However, just as groups of individuals are not teams unless they are interacting and interdependent (Robbins, 2000), groups of technology tools such as those listed above are not a useful cohesive system unless they are organized effectively. There is a positive synergy that results from these types of electronic tools when they are coordinated together to help yield higher performance through convenience, accessibility, and structure of the design.

Some of the popular brand name systems available today are Blackboard™, WebCT, and eCollegeSM. They are becoming widely used at educational institutions and one corporate training programs for Web-enhancement of on-campus programs or fully virtual distance learning courses. These systems are not expensive, easy to use, technology stable, upgradable, and very convenient to use from home or the work site. Selected features of e-learning systems that can be applied to enhance team performance management include:

(1) *Announcements*. Excellent for communicating with teams by posting relevant topics, meeting dates, news, assignment changes, project due dates and so on. This feature is very convenient for the team leader(s) to use in an asynchronous method, because announcement postings may be made at any time of day or on any day of the week.

- (2) *Team leader and member background information*. The e-learning system allows posting of biographical information of team members such as their position, experience, education, training, team and project role, photographs or other items that people on the team may want to know. This can be useful for new organization members, who may not know everyone that well on the team. It is also helpful to the leaders when they are assigning project tasks or creating sub-teams.
- (3) *“Course” information*. Although the Web site area may have the word “course” in the title, this area can be useful for organization teams to post information about the team, such as the mission statement, goals, objectives, charges to the committee, time and meeting schedule, calendar of events, and so on.
- (4) *“Course” documents*. The documents section is useful for important short or long documents, worksheets, and other file types relating to the work of the team. Meeting agendas, meeting minutes, report drafts, spreadsheets, data files, electronic slide presentations, research findings, and many other kinds of documents can be stored here for use by the team members.
- (5) *Assignments*. Team leaders can assign team sub-groups and individuals with assignments in this area, as well as the general team assignments.
- (6) *Communication features*. The e-learning systems have a good selection of communication options for organization teams, including e-mail, discussion boards, virtual “classroom”, roster, and group pages:
- The e-mail system usually allows individual selection of members or the option to send a message to the entire team with one message.
 - The discussion boards feature is probably the most interesting and useful option in using e-learning systems for team management. These discussion boards are created by the team leaders and used by members to create discussion threads that can be written to at any time day or night. This means that members are not locked into a specific meeting time, yet they can participate fully in the

ongoing discussions online. Team leaders can create a general discussion board for overall team questions, as well as boards specific to the project(s) on which the team is working.

- A virtual “classroom” is an online workspace that requires the team members to be online for a meeting at the same time to participate in a live discussion. This feature is good when the team needs to move faster on decision making and planning. The virtual classrooms in the e-learning systems available today often have a “whiteboard” feature that allows the members to draft documents, sketches, and diagrams for everyone to see and work with. The systems also enable electronic slide presentations to be presented. Once the live chat is completed, it can be archived for future reference and for individual team members who may not have attended the online meeting.
 - A roster of team members allows team leaders and members to have easy access to the names and e-mail addresses of others.
 - Group pages can be created by team sub-groups for their own discussion boards, e-mail lists, links, digital drop box for document exchange and so on.
- (7) *External links can be useful for team leaders and members to post links to resources on the Internet that may be particularly useful to the team.* As links are added, the team leader can write a description about each link and why it was recommended.
- (8) *Assessment.* Since the e-learning systems were originally designed for education, there are some features available that team leaders can use to track individual and group performance. Features such as the online gradebook, surveys, and quizzes can be used to collect and summarize team member opinions. Other useful statistics that report system usage by team members include:
- total number of accesses per course area;
 - number of accesses over time;
 - user accesses by hour of the day; and
 - total accesses by user.

- (9) Tasks, calendars, project schedules, and other tools that facilitate workflow and team management.

All these e-learning system features can combine to enhance team performance through enhanced communication and team management. But what kinds of teams can be enhanced with this technology?

Improvements for various types of teams

The literature on team building contains several kinds of team structures and purposes. In terms of using the e-learning systems, they can first be viewed as either completely virtual or e-learning enhanced. Virtual teams can work closely together on tasks, even though the members may be separated by great distances, and even in different time zones in other parts of the world (Henry and Hartzler, 1998). The e-learning systems are suitable for virtual teams, because they can allow cross-functional team members to work together on projects for a specific period of time by using the combination of features available in a coherent and structured manner. The ease of use, relatively low cost and easy access to the e-learning platforms from almost anywhere in the world make the systems extremely useful for virtual teams. The team leaders can structure the set-up and monitor the performance very closely using the aforementioned assessment features inherent in these education-oriented systems. Although virtual teams are usually of finite duration (Bal and Gundy, 1999), they could be permanent, if the organization allows it and the team continues to perform successfully.

The other kind of team mentioned is e-learning enhanced. This may be an organizational team that meets in person regularly, and uses the e-learning system as a tool and basis of operation. The e-learning features described in the previous section of this article can become the basis for the team members’ work, communication, and reporting. Although the e-learning platforms may seem to eliminate the necessity for physical meetings in person, there are many individuals and organizations that believe that “real” team meetings are required for the subtle nuances, forceful deliberations, and

other things that can only seem to happen in person. Enhancement of team performance can be facilitated by the team leader, and enacted by the team members, only if they fully utilize and leverage the features of the e-learning systems available. One obstacle to improvement in e-learning enhancement of regular teams is encouraging and persuading the team members to become fully engaged in the usage of the online system. The organization as a whole and the senior leadership also face challenges in persuading the team leaders to use the e-learning systems effectively and monitoring their use. Senior executives can help address this problem by publicly praising early adapters in the organization, and using the technology themselves to demonstrate the possibilities.

Whether the teams are short-term, long-term, virtual or e-learning enhanced, the team types that use the e-learning systems can also be problem-solving, self-managed, or cross-functional type teams. The problem-solving teams consist of members who share ideas or offer suggestions on how work processes and methods can be improved (Robbins, 2000). In addition, project focused teams often use resources throughout an organization to support a specific project (Yeung *et al.*, 1999). For these problem or project focused teams, the e-learning system features, such as group discussion boards, digital drop boxes, group e-mail, and group external links, can enable the team to stay focused on the project and facilitate monitoring and reporting. The digital format of the discussion board text and attachments can also make it very easy for members or team leaders to use the information and data to create reports efficiently by incorporating sections or whole documents as needed.

Self-managed teams that use the e-learning systems have the advantage using the technology to facilitate setting work schedules (using the calendar features), developing performance goals (using the task features), interacting directly with customers (using e-mail and other communication features), selecting members, and evaluating one another's performance. The self-contained nature of the e-learning platforms is well-suited to the goals and operational methods of self-managed work teams.

Cross-functional work teams often consist of employees who coordinate their efforts to

accomplish a task, are from approximately the same position level, but are from different work areas (Robbins, 2000). These teams can also be composed of senior managers from within a single firm who direct a number of subunits, or the teams can even include members from other organizations. The members can be from one specific unit or other units, and even include suppliers and customers (Yeung *et al.*, 1999). Many of the organizational and geographical boundaries that were traditional problems for cross-functional teams to address can be reduced or eliminated by using the e-learning system technology features.

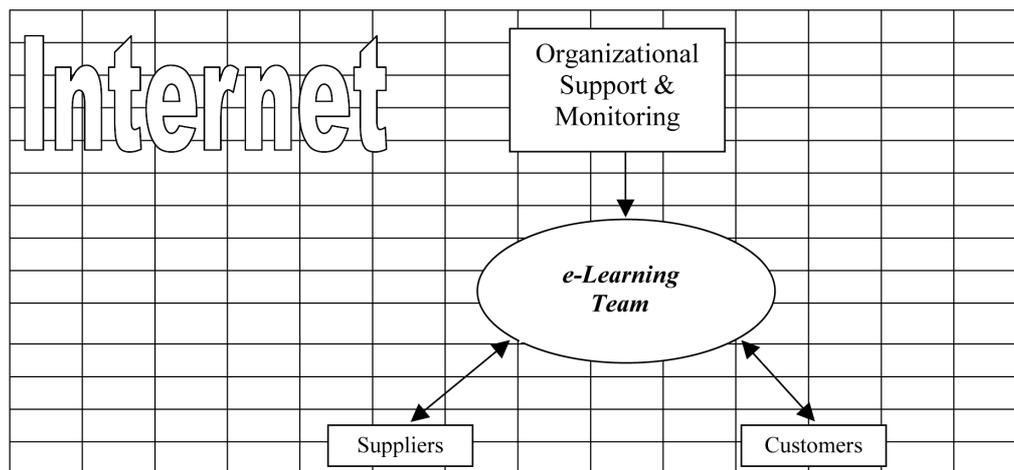
Enhancement and innovation

These Web-based course containers can do more than just enhance team performance – the technology can facilitate innovation. By applying information technology to re-engineer team management, not merely streamline the functionality, new methods for teamwork can be introduced (Stewart and Kleiner, 1995). The innovation of e-learning systems on team performance management is centered on the increased team focus on the goals of the team, and away from any dominant personalities on the team. Issues are examined logically, communication with stakeholders is enabled, and the tremendous depth of information available on the Internet can be brought into the team decisions (see Figure 1).

A top-down approach to team management is needed, if it is to become an organizational reality (Natale *et al.*, 1998). It requires commitment from the executive level, because without direct support from the top it will not work properly. The new technology allows the top level not only to support teams, but to monitor and participate in an effective manner.

The reason why team innovation using e-learning systems is needed is that information technology has become a vital component to success in today's information-rich world (Stewart and Kleiner, 1995). New knowledge and information are now the primary production forces in our economy, rather than land, raw material, or physical labor, as in earlier years (Hoffman, 1994). The large and highly complex information organizations in business and education today are suited to teams using e-learning systems because of their need to decipher complex problems, arrive at carefully thought-out

Figure 1 The use of the Internet in team decisions



decisions, and to apply creativity. In addition, team members today need to have a diverse range of skills and technology (Scott and Walker, 1999). The e-learning systems available today will undoubtedly develop in future years with even greater functionality and new features. The increased dependence on information and the exponentially fast rate of change through technology will force organizations to equip teams with the tools needed to accomplish their goals.

Conclusion

Implementing team-based management systems is no guarantee of influencing and enhancing organizational effectiveness (Elmuti, 1997). Changes in person-job relationships and whole organizational hierarchy are needed. This need can be at least partially addressed with the use of e-learning systems by organizational teams. Although the e-learning systems were not originally designed for non-educational purposes, all organizations are effectively becoming learning organizations to prosper in the information age. Knowledge, information and teamwork are greatly facilitated by the Internet and systems that can coordinate and communicate efficiently and easily. People are the key to success in any organization, and providing people with the latest tools to succeed, along with the support and direction from the executives, will help ensure greater success. Senior executives should set an example not only by supporting the use of e-learning systems for teams, but by participating as well. This often requires new

training and continuing education by executives and staff. However, that is a small price to pay for the added enhancement, innovation and success that can be achieved.

References

- Alstete, J.W. (1995), *Benchmarking in Higher Education*, The George Washington University Graduate School of Education and Human Development, Washington, DC.
- Bal, J. and Gundy, J. (1999), "Virtual teaming in the automotive supply chain", *Team Performance Management: An International Journal*, Vol. 5 No. 6.
- Elmuti, D. (1997), "The perceived impact of team-based management systems on organizational effectiveness", *Team Performance Management: An International Journal*, Vol. 3 No. 3, pp. 179-92.
- Henry, J. and Hartzler, M. (1998), *Tools for Virtual Teams – A Team Fitness Comparison*, ASQ Quality Press, Milwaukee, WI.
- Hoffman, G. (1994), *The Technology Payoff*, Irwin, Burr Ridge, IL.
- Natale, S.M. et al. (1998), "Team management: developing concerns", *Team Performance Management: An international Journal*, Vol. 4 No. 8, pp. 319-30.
- Peters, T.J. (1992), *Liberation Management: Necessary Disorganization for the Nanosecond Nineties*, Alfred A. Knopf, New York, NY.
- Robbins, S.P. (2000), *Managing Today*, Prentice-Hall, Upper Saddle River, NJ.
- Scott, K. and Walker, A. (1999), "Extending teamwork in schools: support and organisational consistency", *Team Performance Management: An International Journal*, Vol. 5 No. 2, pp. 50-9.
- Stewart, G.R. and Kleiner, B.H. (1995), "The enabling power of teams and information technology", *Team Performance Management: An International Journal*, Vol. 1 No. 2, pp. 13-18.
- Yeung, A.K. et al. (1999), *Organizational Learning Capability: Generating and Generalizing Ideas with Impact*, Oxford University Press, Oxford.