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ABSTRACT

Designed to provide change agents with a framework for planning and implementing successful teletraining systems, this paper discusses strategies for the introduction of sophisticated teletraining technology into corporate training programs without adversely affecting a client organization's social environment. Teletraining is defined as an integrated system for the planning, delivery, and management of corporate training programs through the use of advanced telecommunications services; such systems allow corporations to deliver interactive training from instructor-led locations to students at remote sites around the world. It is suggested that a change agent's efforts will be facilitated by: (1) knowledge of a client's training needs and how these needs are being addressed in the client's current training environment; (2) an understanding of how teletraining differs from other innovative training delivery methods; and (3) an awareness of the educational and psychological factors that affect the implementation of a teletraining system. These factors are discussed within the framework of Hall's concerns-based adoption model. (13 references) (EW)

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Guidelines For Implementing Teletraining Systems

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GUIDELINES FOR IMPLEMENTING TELETRAINING SYSTEMS

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The implementation of a teletraining system necessitates that a corporation examine its current training needs and procedures, and then determine how to incorporate this new approach for increasing the efficiency and cost-effectiveness of training and professional development programs.

The purpose of this article is to provide sufficient information for change agents to achieve a working knowledge of corporate training concepts and an understanding of how these concepts can be related to teletraining. The author describes how change agents can identify training needs, position teletraining as a potential solution and implement changes in a training program. An understanding of this process enables the change agent to communicate with the client more persuasively and credibly.

TELETRAINING AND THE CORPORATE TRAINING ENVIRONMENT

Teletraining is an integrated system for the planning, delivery and management of corporate training programs through the use of advanced telecommunication services. Teletraining allows corporations to deliver training from an instructor-led location to students at remote sites located anywhere in the world. The students can interact with the instructors and each other as if they were together in the same classroom.

The examination of the corporation's training needs and the determination of how to incorporate teletraining into a total training program are ultimately the corporation's responsibilities. However, an external change agent who is a specialist in instructional systems is often hired as a consultant to assist a client to fulfill implementation responsibilities. The change agent will need to obtain:

- Knowledge of client's training needs and how these needs are being addressed in the client's current training environment.
- An understanding of how teletraining differs from some of the other innovative training delivery strategies.
- An awareness of the educational and psychological factors that affect the implementation of a teletraining system.

An understanding of these factors will assist the change agent to successfully implement a teletraining system which addresses client needs and ultimately impacts the corporation's productivity.

KNOWLEDGE OF CLIENT'S TRAINING NEEDS

One of the first steps of the change agent is to analyze the client's training needs. this may require client approval to obtain the relevant data. The next step is to create client awareness about teletraining: what it is, what it can accomplish, and how it can benefit the client (1).

Today, the identification of training needs in major corporations is part of a systematic training development process. Many major corporate training departments utilize training development standards to analyze needs, design and develop training activities, select delivery strategies (such as teletraining), and conduct follow-up evaluation. Change agents have a better chance of successfully positioning teletraining as an appropriate delivery strategy when they understand the process through which the client determines training needs and develops solutions for corporate training problems.

The training development standards are based on recent advances in training technology. The emphasis in training technology has shifted away from classroom instruction to a broader view of total job performance. Training is no longer an automatic solution to a human performance problem. A systematic, bottom-line approach to performance problem-solving is based on a thorough analysis derived from psychological principles of learning and performing. Current training technology encompasses an eight phase process: (2)

- 1. Pre-project planning
- 2. Job performance analysis
- Task analysis and training design
- 4. Materials and development
- 5. Pilot session
- 6. Transition to delivery
- 7. Course maintenance
- 8. Follow-up evaluation

Typically, the client's performance and task analysis lead to the identification of training needs which are either being met by current training strategies, are not being met satisfactorily, or are not being addressed at all because of various constraints. It is advantageous to focus efforts on needs that are not being met satisfactorily or not being addressed at all. The most important environmental factors which affect training programs today are:

- The pace at which the validity of information changes is intensifying (e.g., engineers' knowledge becomes obsolete every five years).
- Human Resource Departments are being called upon to improve white collar productivity and to improve the quality of work life for employees.
- The turnover rate of key employees is increasing.
- Inflation continues to increase travel costs.
- Corporations are looking at technological alternatives to the traditional inperson delivery of training.

When preparing to meet with training managers, keep in mind that they are charged with the responsibility of providing innovative and cost-effective solutions to their training needs. Solutions need to be developed and implemented quickly. This simplified six step approach is recommended:

- Analyze the needs of the client.
- 2. Position teletraining as an appropriate delivery approach.
- 3. Provide a demonstration that teletraining can address a need.

- 4. Train staff to implement the teletraining system.
- 5. Evaluate staff performance and the overall teletraining system.
- 6. Recommend system enhancements to address additional needs.

This simplified approach is consistent with the systematic process for training design development and evaluation practiced in many corporate training organizations today.

CHARACTERISTICS OF TELETRAINING

Teletraining makes it possible for corporations to train in a timely manner, reduce expenses, minimize disruptions, and increase productivity. However, to position the concept of teletraining, the change agent needs to demonstrate that it is a better alternative than some of the other innovative training strategies such as computer-based education, programmed instruction, and interactive video disc. All of these innovative technologies satisfy, to varying degrees, the following requirements:

- Timely training of new employees
- Management of budgets as travel expenses increase at twice the rate of inflation
- Increasing the productivity of existing training resources

Teletraining is able to go beyond these requirements and meet additional client's needs because it is a truly interactive technology. Computer-based education, programmed instruction, and video disc are only interactive in a highly structured, preprogrammed sense. The only feedback and responses the trainee can receive from the media are those that are already built in. However, teletraining is a very flexible communication medium which can be adapted quickly in response to trainee input or changes in the training environment. Benefits of teletraining include:

- Increased flexibility for modifying programs as information and technology change.
- Increased training to more employees without increased training resources.
 As the number of participants per site increases, the costs remain constant.
- Increased access to subject matter experts.
- Increased sharing of information among staff at dispersed locations.
- Improved coordination and cooperation among employees.

To implement teletraining, a change agent must understand the training needs of the client and the unique capabilities of teletraining to meet those needs. Only after a team has developed such an understanding can teletraining be described appropriately. The change agent must also demonstrate that teletraining addresses the present and future training requirements more effectively than other innovative training approaches.

IMPLEMENTING A TELETRAINING SYSTEM

Training and evaluation are essential components in implementing a teletraining system. As with any innovative project, usually there is a period of cautiousness and trial. Whether or not that innovation is accepted often depends upon the client's needs and the ability of the innovation to meet them. Establishing a relationship between needs and the ability to meet those needs is a goal of the change agent (3,4,5).

An important step toward the acceptance of teletraining is to overcome the client's natural resistance to try something innovative. When the client shows an interest in

planning a teletraining system, the change agent should determine the client's level of concern by means of questionnaires and interviews (6). Two very typical concerns are:

- Can teletraining be an effective medium for delivering quality training?
- Can presenters and participants unfamiliar with the technological and procedural aspects of teletraining use the medium effectively?

According to studies, seven levels or stages of concern are observable during the adoption of any innovative program or project. They are: awareness, informational, personal, management, consequences, collaboration and refocusing. Individuals experience a number of these concerns as they proceed through the change process. Typically, non users have concerns at the awareness, informational, and personal levels. As they become more familiar with the innovation their concerns shift to the management and consequence levels, and when they become very experienced with using it, their concerns shift to the collaboration and refocusing stages (7).

Each individual involved with an innovation such as teletraining may express concerns which fall within several of the stages; that is, a profile with several different levels of concerns can be observed for each individual. Over a period of time, the profile usually changes, indicating that the individual has progressed from lower level concerns to higher level concerns (8,9).

This research led to the development of the concerns-based adoption model. The model can be used to monitor the changes in the levels ci concerns expressed by individuals as they become more familiar with an innovation. In addition, it can be used as a guide for the change agent's attempt to choose appropriate intervention strategies, such as providing additional training and consultation to hasten the acceptance of an innovation. The model thus serves as a valuable diagnostic and prescriptive tool (10,11,12).

A MEANS TO IMPROVE PRODUCTIVITY

The change agent needs to continually focus the implementation efforts on satisfying business needs. Face-to-face training of employees poses significant cost and logistical problems for corporations today. Corporations must solve these problems without disrupting work flow and employee productivity. Consequently, many organizations are looking at technological alternatives to the traditional in-person delivery of training.

The change agent needs to make the client aware that teletraining has significant potential as an efficient, productive means of conducting training courses. Its effectiveness in terms of trainee learning and acceptance has been proven by over 149 academic, governmental, and corporate training institutions (13). The most obvious benefit of teletraining is the savings in travel-related time and expenses. Travel time affects employee productivity.

Teletraining is a medium that offers innovative communications possibilities for overcoming corporate training problems. The guidelines described in this article provide change agents with a framework for planning and implementing successful teletraining systems.

REFERENCES

- Hancock, B.W., Chute, A.G. & Raszkowski, R.R. Teletraining for teleconference instructors. In L.A. Parker (Ed.) <u>Teleconferencing and electronic communication II: Applications, technologies and human factors</u>. Madison, Wisconsin: Center for Interactive Programs, 1983.
- 2. Training system handbook. Cincinnati: AT&T Communications, 1983
- 3. Bennis, W.G., Benne, K.D., Chin, R., Corey, K.E. The planning of change, (3rd ed.). New York: Holt, Rinehart & Winston, 1976.
- 4. Havelock, B.W., The change agent's guide to innovation in education. Englewood Cliffs, New Jersey: Educational Technology Publications, 1973.
- 5. Rogers, E.M., Change agents, clients and change. In G. Zaltman, P. Kotler, & I. Kaufman (Eds.), <u>Creating social change</u>.

 New York: Holt, Rinehart, & Winston, 1972.
- 6. Chute, A.G. Assessing the concerns of teleconference presenters: A theoretical perspective. <u>Issues in Higher Education</u> (Vol. 6). Manhattan, Kansas: Kansas State University, 1982.
- 7. Hall, G.E., Wallace, R.C. & Dossett, W.A.

 A developmental conceptualization of the adoption process within educational institutions. Austin, Texas: Research and Development Center for Teacher Education, University of Texas, 1973.
- 8. Chute, A.G., Hancock, B.W., & LaPierre, R.C. Effects of a teleconference experience on the type of concerns expressed by teleconference participants. In M.R. Simonson (Ed.), Proceedings of selected research paper presentations at the 1982 convention of the Association for Educational Communications and Technology, Washington: AECT, 1982.
- Hall, G.E. Procedures for adopting educational innovations/CBAM, using the individual and the innovation as the frame of reference for research on change. Paper presented at the annual meeting of the Austrailia Association for Research in Education, Melbourne, November, 1979.
- 10. Chute, A.G. Selecting appropriate strategies for training teleconference presenters. In L.A. Parker (Ed.), Teleconferencing and interactive media. Madison, Wisconsin: Center for Interactive Programs, 1982.
- 11. Hall, G.E., Zigarmi, P.K. & Hord, S.M. A taxonomy of interventions: The prototype and initial testing. Paper presented at annual meeting of the American Educational Research Association, San Francisco, April, 1979.
- 12. Hancock, B.W., & Chute, A.G. Addressing the concerns of teleconference presenters through facility development workshops. <u>Issues in Higher Education</u> (Vol. 6), Manhattan, Kansas: Kansas State University, 1982.
- 13. 1983 Teleconferencing directory. Madison, Wisconsin: Center for Interactive Programs, 1983.

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