

## FR104 - Maximize the Impact of E-Learning Programs

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### Learning Objectives

- Assess key barriers to the adoption of e-learning in your organization.
- Evaluate the suitability of your training programs for e-learning
- Gain the support of senior and operational managers

## **Abstract**

By 2008 Booz Allen is predicted to have 20,000 geographically dispersed employees. To meet the training needs of its expanding workforce, Booz Allen needs to consider alternatives to classroom delivery. Like the rest of the training industry, Booz Allen faces the trend of “if you build it, will they come?” Although the classroom version of the course “Developing an Award Winning Proposal” has a six-month waiting period, low registration for the online version, which was well received by participants, caused cancellation of several of the online sessions.

To meet the challenge of developing e-learning training that addresses their global expansion and also attracts and retains learners, Booz Allen conducted an in-depth analysis of target groups and training programs as well as the costs and ROI of alternative training. By understanding the costs and potential impact of blended delivery options, Booz Allen was able to make informed decisions on training choices—avoiding costly errors, making the most of resources, and maximizing the impact of e-learning programs by focusing on training initiatives that develop skills aligned to business goals.

## **Background**

Booz Allen Hamilton is a global strategy and technology consulting firm with 17,000 employees and over \$3.6 US billion in annual sales.

## **Business Need**

By 2008 Booz Allen is predicted to have 20,000 geographically dispersed employees. To meet the training needs of its expanding workforce, Booz Allen recognized the need to place more emphasis on alternatives to classroom delivery. However, like the rest of the training industry Booz Allen faces the challenge of overcoming the trend “If you build it – will they come?”. A case in point is Booz Allen “Developing an Award Winning Proposal” course. Although there is a six months waiting period to enroll in the classroom version of the course and the online version of the course was well received by participants, low registration forced the cancellation of several sessions of the online version. The challenge is to build eLearning addressing the global expansion and build courses where people attend and return.

## Key Barriers to the Adoption of E-Learning

To ensure the growth of distance learning an Instructional Systems Design (ISD) process for media selection is needed to identify and address key barriers to adoption. These included:

- Environments that are not suitable for eLearning. For example, although some staff will attend a Video-teleconference to hear a well-known expert and use a CBT course on a CD while on travel, they are not good candidates for online learning since they work 12 to 14 hours per day, 4 days a week offsite.
- Mentor, facilitator, technical and managerial support. For example, the economical viability of plausible distance learning options over the training program life cycle. In other words, what are design, development, administration, management, delivery, maintenance and support costs; and how do they compare to a traditional instructor-led approach.
- Motivating learners – i.e., what is in it for me; how can it help me access the right info when and where needed; and how it would facilitate networking with colleagues.
- Cultural acceptance of eLearning a factor. While eLearning is recognized as an alternative to learning, when polled certain staff levels indicated the desire to learn from a traditional classroom instruction.

## Hypothesis

By factoring Booz Allen organizational, cultural and training requirements in the media selection process, training programs that are most suited for eLearning can be identified. In addition to identifying training programs that are candidate for conversion, the success of the strategy is highly dependent on understanding the characteristics and the environment of the target audience; as well as effectively communicating the benefits to management, learners and other stakeholders.

If successful, this would result in the significant growth and adoption of eLearning as a method of learning.

## **Evaluation of Training Programs for E-Learning**

Based on the above reasoning, the following three-step custom approach for selecting the right blend of delivery options was adopted:

- Step 1. Identify plausible delivery options for each training program based on content, cultural and organizational requirements. In other words, if time and money are not an issue, which media is most effective? Key instructional design factors are presented in Appendix A.
- Step 2. Compute the costs and return on investment (ROI) of viable delivery options (identified in Step 1). The ROI should take into account the cost of marketing/outreach campaign. In other words, if money is an issue, then which plausible option is most economical? Key cost factors are presented in Appendix B?
- Step 3. Identify the most cost effective delivery options. In other words, if effectiveness and costs are equally important, then which media provide the highest effectiveness at the lowest cost?

Capturing and analyzing the characteristics of various target groups and training programs as well as computing the costs and ROI of various alternatives over time, required a robust media selection tool. After considering a number of options including the development of an Excel based model, ADVISOR Enterprise was selected. In addition to offering the best overall media selection and ROI tool on the market, BNH welcomed the opportunity to tailor ADVISOR Enterprise to Booz Allen's specific needs.

Collecting data on learner profiles as well as the time and costs needed to carry out various training activities – i.e., analyze, develop, administer, manage, deliver, maintain and support various types of training programs proved to be far more challenging. It took a summer student under the supervision of the project manager a couple months to collect, validate and populate learner profile data within ADVISOR. Moreover, cost data on specific training activities were not available. Additional consultation with project managers and finance were required to secure reliable baseline data for forecasting the costs of traditional as well as distance learning programs.

## **Gaining Support**

To verify the accuracy of the media selection model in identifying viable delivery options, forecasting the costs of plausible delivery options over the life cycle of the training program as well as recommending highly effective and economical media, twenty training programs were analyzed and validated.

## **Lesson's Learned – Building on Success**

As Booz Allen's experience with eLearning evolved, the drivers for selecting the right blend of delivery options matured accordingly, as follows:

- Recommended media should be viable based on training program content, cultural and organizational requirements. In other words, one size does not fit all.
- Benefits of the recommended media to the target group should be clearly articulated. In other words, if you build it, they will come and return.
- Recommended media should be economical. In other words, the return on investment (ROI) over the life of the training program is worthwhile.
- Recommended media should drive performance and business results. In other words, senior as well as operational managers will support the initiative.

Although additional effort is needed to understand the costs and potential impact of alternate blends of delivery options, you gain critical knowledge for making informed decisions. As a result, costly errors can be avoided and resources maximized by focusing on training initiatives that develop skills needed to attain business goals.

## **Final Remark**

As analysts gained a better understanding of ADVISOR's capabilities, three issues became readily evident:

- The importance of capturing accurate data. For example, if baseline data for forecasting development, administrative, management, delivery, maintenance and support costs are inaccurate, forecasts of all corresponding costs will in-turn be inaccurate.
- The power of ADVISOR in driving business goals. Once you can confidently identify viable options for the delivery of training as well as forecast upfront, recurring and hidden costs needed to develop and sustain a training program for each target group, the focus shifts from cost avoidance to driving performance and business results.
- It is difficult to account for every possible scenario when undertaking a project of this nature. Building a successful business partnership with a vendor that understands your requirements and is willing to accommodate your evolving needs is critical to the success of these types of projects.

**Appendix A: Instructional Design Factors**

**Content/Instructional Design Strategies**

Requirement	Impact
Reason for Course	While Electronic Performance Support Systems may provide effective means for upgrading the knowledge of employees, they are not suited for initial training, for example.
Audio	If the course deals with language, music or radio communications, for example, then methods that do not provide realistic representation of audio may not be suited for the delivery of training.
Full Motion Video	If the course deals with surgical procedures, for example, then methods that do not provide realistic representation of events may not be suited for the delivery of training.
Stability of Course	If a large segment of the course changes each year, then it may not be feasible to use Multimedia CBT or WBT, for example, for the delivery of training.
Guided Discussions	If the objective of the course is to change the behavior and attitudes of employees, then methods that limit the exchange and sharing of views may not be suited for the delivery of training.
Teaming Exercises	If trainees work as a team when applying knowledge and skill acquired in the course, then methods that limit simulation of the working environment may not be suited for the delivery of training.
Hands on Exercises	If hands on exercises are required for developing psychomotor skills, for example; then delivery methods that cannot simulate the working environment may not be adequate.
Personal Safety	If it is dangerous for beginners to practice learned concepts (how to regulate a high voltage panel, for example); then methods that do not minimize the risk may not be suited for the delivery of training.
Equipment/Data Integrity	If it is potentially destructive for beginners to practice learned concepts (damage equipment or valuable data, for example); then methods that cannot simulate these activities may not be suited for the delivery of training.
Course Content	If course deals with policies, procedures or large body of knowledge, and is referred to regularly, a hypertext or hypermedia system may improve employees' productivity.
Urgency of Making Changes	If course material changes regularly, then the Internet may allow for immediate update and distribution of the course.

**Learners/Employees Characteristics**

Requirement	Impact
Reading Ability	If trainees reading ability is limited, then it may not be feasible to use print or simple CBT, for example, for the delivery of training.
Ability to Travel	If trainees are widely scattered and their ability to travel is limited, then instructor-led classroom training in a central location, for example, may not be feasible.
Access to Technology	If trainees have limited access to a computer, multimedia PC, video conferencing or the Internet, then it is not feasible to use methods that rely on these technologies for the delivery of training.
Trainees Motivation	If trainees' motivation to learn is low, then highly interactive delivery methods may be better suited for the delivery of training.
Trainees Skill/Proficiency	If trainees have diverse knowledge and skill, then self-directed methods that allow trainees to advance at their own pace may be better suited for the delivery of training.
Resistance to Change	If trainees are resistant to technology, then a communication plan that highlights the benefits of the proposed approach may alleviate concerns.
Value of Trainees Time	If the value of trainees' time is high, then self-directed delivery methods may be better suited for the delivery of training.

**Environment/Limitations**

Requirement	Impact
Development/Revision Time	Some methods (Multimedia CBT or WBT, for example) may have to be eliminated if the development time is critically short and the consequences of missing the deadline are high.
Delivery Time	It may not be feasible to use instructor-led classroom training, for example, if the delivery time is critically short and the consequences of missing the deadline are high.
Testing Requirements	Self-directed methods (print, CBT and WBT, for example) are not adequate for performance-based evaluation.
Classification	Some methods (Internet, for example) may not be suitable for the distribution of classified information.
Trainers/SME Availability	It may not be feasible to use the instructor-led classroom method, for example, if the number of subject matter experts is critically short and the number of trainees is high.
Team Work	If trainees work as a team when applying acquired skills, then delivery methods that limit the simulation of the working environment may not be adequate.
Consistency	If the number of qualified instructors is limited and trainees are widely scattered, it may not be feasible to use the instructor-led classroom method, for example to deliver high quality training.
Scheduling	If the number of subject matter experts is limited or taking employees off the job is time or cost prohibitive, then self-directed methods or distance learning technologies may better meet the organization's needs.
Data Collection	If collecting scores and surveys is required, then a computer based testing system with a learning management system may provide effective and economical means for the delivery of training.
Apply Knowledge	If the material is complex or critical to the success of the organization, then a performance support system that supports employees on the job may enhance performance.



**Appendix B: Cost Factors**

Group	Description	Classification
Development	<ul style="list-style-type: none"> <li>➤ Analyze/Design/Develop Training Material</li> <li>➤ Purchase/License Off-the-Shelf Courses</li> <li>➤ Formative Evaluation (Pilot)</li> </ul>	Start-up
Hardware	<ul style="list-style-type: none"> <li>➤ Purchase Hardware</li> <li>➤ Set-up/Install Hardware</li> </ul>	Start-up
Administrative	<ul style="list-style-type: none"> <li>➤ Staff (register trainees, book rooms, arrange for equipment, etc.)</li> </ul>	Recurring
Management	<ul style="list-style-type: none"> <li>➤ Staff (coordinate course analysis, design, development, delivery and evaluation)</li> </ul>	Recurring
Delivery	<ul style="list-style-type: none"> <li>➤ Trainees Time (lost productivity)</li> <li>➤ Trainees Lost Opportunity (lost revenue/productivity)</li> <li>➤ Trainees Per Diem (hotel, meals, incidentals)</li> <li>➤ Trainees Travel</li> <li>➤ Instructor Fees (salaries and/or consulting fees)</li> <li>➤ Instructor Lost Opportunity (lost revenue/productivity)</li> <li>➤ Instructor Per Diem (hotel, meals, incidentals)</li> <li>➤ Instructors Travel</li> <li>➤ Facility Rental</li> <li>➤ Facility Maintenance (lease, mortgage, utilities, security, maintenance, etc.)</li> <li>➤ Audio/Video Transmission Costs</li> <li>➤ Internet Connecting Fees</li> </ul>	Recurring
Support	<ul style="list-style-type: none"> <li>➤ Consumable Materials</li> <li>➤ Course Updating</li> <li>➤ Hardware Maintenance</li> <li>➤ Staff (installing course, resolving software and hardware problems, etc.)</li> </ul>	Recurring

Appendix C: Course Analysis Process

