

# E-Learning Benefits and ROI Comparison of E-Learning vs. Traditional Training

By David Boggs, CEO

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## Background

SyberWorks, Inc. ([www.syberworks.com](http://www.syberworks.com)) is a leader in the custom e-Learning Solutions and Learning Management System industry for Fortune 1000 corporations, higher education, and other industries. Located in Arlington, Massachusetts, the company serves the expanding 11 Billion dollar e-Learning segment (1).

Since 1995, SyberWorks has developed and delivered unique and economical solutions to create, manage, measure, and improve e-Learning programs at companies and organizations in the United States, Canada, Europe, and the world.

## Author's Biography

Dave Boggs is the founder and CEO of SyberWorks. He has been involved with computer-based and web-based training for over twelve years. He is responsible for directing the company's overall business strategy and overseeing its financial growth and prosperity. Dave has positioned the company to provide customizable solutions to its customers. These solutions often meld performance support, job aids, reference information, and other tools with e-Learning in one integrated site to increase the productivity of key target audiences such as sales, distribution, and field service.

Before founding SyberWorks, Dave was the VP of Sales and Business Development for Relational Courseware. Dave holds a Bachelor of Science degree in Physics from Union College in Schenectady, NY and an MBA from the Kellogg School of Management at Northwestern University in Evanston, IL.

## White Paper Focus

In most cases, the biggest quandary an organization must solve is to put together a rational, i.e., a cost justified, business case why they should spend capital to invest in a learning management system. The focus of this white paper will outline the benefits of web-based training along with a practical framework for developing ROI when looking at the cost of traditional training methods versus e-Learning.

### The Benefits of E-Learning

Some of the benefits realized by corporations and institutions that use web-based training as an integral facet of their organization's training function are listed below:

#### *Strategic Advantages*

**Creating a Global Workforce** - Web-based training is a powerful instrument for developing a global labor force. Web-based training can deliver custom, sophisticated instruction to employees all around the planet. (2)

**Reacting to Abbreviated Product Development Cycles** - Companies that create today's best of breed products and services are now introducing their wares more quickly into the marketplace. The use of web-based learning management systems allows your organization's training function to keep pace with the market. Web-based training can be used to provide the needed instruction without taking workers away from their daily responsibilities. (3)

**Managing Flat Organizations** - Down and right sized organizations have now become the norm in today's business landscape. As a result, line managers have multiple responsibilities and are severely time impoverished. E-Learning can help by delivering training for those areas which line managers are normally responsible, such as desktop application training and product training. They are then freed up to tackle other pressing priorities in their workday. (4)

**Adjusting to Employee Wants and Needs** - Economic and demographic shifts has fueled the growth of telecommuting, virtual offices, job-sharing, and flextime. Delivering training via the Internet overcomes the obstacles imposed by the exigencies of a transient workforce. (5)

**Facilitating a Contingent Labor Force** - Contingent workers, such as temporaries, consultants, retirees who work part-time, the self-employed has increased dramatically over the last decade. Companies and organizations have become more reliant on contingent workforces to deal with peak labor demands. E-Learning solutions and web-based learning management systems are invaluable tools to train and manage this unique labor force. (6)

**Retaining Valued Workers** - Education has become a critical lynch pin in a company's or organization's worker benefits portfolio. Workers in today's new economy are not as afraid to move to a new position if they feel their interests and career welfare are better provided for in a different environment. Web-based training programs that offer certifications, college and graduate school education, and other important job skills become powerful incentives for an employee to stay. (7)

**Increasing Productivity and Profitability** - E-learning programs and training increase employee knowledge and skill levels. As they become better at their jobs, they sell more products, reduce waste, are more productive and efficient. An educated, well-trained workforce is the main driver to profitability for today's businesses. (8)

## The Benefits of E-Learning, Continued

### *Tactical Advantages*

**Flexibility to Learn Anytime, Anywhere** - Learners can access courses and content from their office, home, or hotel room from any spot around the globe. (9)

**Reduce Travel and Related Costs** - Save on hotels; airfare, meals, and other travel expenses associate with traditional onsite training. (10)

**Tools for Tracking, Updating, and Managing Training** – Web-based learning management systems make it easy to track, update, and manage online learners. Learning management systems facilitate, reporting, succession planning, and workforce development from one, centralized, web-based source. (11)

**Affordable Per-Student Costs** - Almost every computer today can be set up with a modem and free browser software with which to access the Internet, so set up costs are relatively low. (12)

**Just-in-Time Learning** - Online learners can take training just before they need it rather than enrolling in a program months before they need the training or refresher class. (13)

**Making Updates Easy** - Web-based training can be updated quickly and easily, so there is no time lag or extra reprinting cost. (14)

**Administer Competency and Compliance Management** - Multiple spreadsheets across various managers' computers make competency management and compliance management a tedious and time consuming task. A centralized, web-based learning management system aggregates all the data into one location were all the necessary managers can access the information when they need it. (15)

### *Training Delivery Advantages*

**Consistent Delivery** - Web-based training is delivered uniformly in a consistent framework, which increases understanding and absorption of the material. (16)

**“Learning Object” Architecture Supports on Demand; Personalized Learning** - Web-based training is designed and developed so content can be chunked into discrete knowledge objects to provide greater flexibility. Students can access these objects through pre-set learning paths, use skills assessments to create individualized study plans, or use search engines to locate exact topics. (17)

**Interactive Content, Graphics, and Animations** - Interactive content, graphics, and animations make lessons standout and help imprint the material on the student's mind. (18)

**Customized Material** - Content can be customized to meet the training objectives of a specific program quickly and easily. (19)

**Self-Paced Programs** - Students can learn at a pace that works for their individual learning style and life circumstances. (20)

### *Infrastructure Advantages*

**Leverage Existing Infrastructure** - Web-based training makes use of already existing infrastructure such as computers, servers, intranets, etc. There is no addition outlay for hardware or capitol assets. (21)

## The Benefits of E-Learning, Continued

### *Infrastructure Advantages, Continued*

**Controllable and Secure Access** – Web-based learning management systems can be easily configured to secure and monitor access. (22)

**Private Networks and Secure Server Installation** – Web-based learning management systems can have greater security because they can be installed on private networks and secure servers. (23)

**Linking with other Training Systems** - E-learning programs can link with other human resource development systems or training systems. (24)

### **ROI Comparison of Traditional Training vs. E-Learning** (25)

Our ROI comparison of traditional training vs. e-learning must begin with some constructs:

#### ***Classroom (traditional custom training)***

Traditional instruction may be developed in-house or outsourced to training development consultants.

#### **Determination by Hour**

Reference resources state that the typical development costs for a 40-hour training session would be:

40 Hours Training X \$4,000 Development Cost/Hour = \$160,000

#### **Using a Training Manual as Criteria**

A problem with determining the development of training by length of class is that often trainers will either cram in too much or else pad the time allotted for the training. 40 hours in class may be too little for the amount of material to be covered. It may also be too much time, if there is an insufficient amount of content.

If the training development is done in-house, it is better to consider the cost of developing a good training manual that will cover the subject matter and provide necessary exercises for the students. This would include a trainer's manual that would guide the trainer through demonstrations and such.

A generous estimate of 5 man-hours per manual page would result in 1000 man-hours for a 200 page manual, which could be covered in 40 hours. At a burdened rate of \$60/hour, the in-house development cost would be:

\$60/hour development cost X 1000 hours = \$60,000

If an outside consulting firm did the job, it would cost:

\$120/hour X 1000 hours = \$120,000

## **E-Learning (custom training)**

The cost of developing e-learning can be more expensive. This is especially true in developing CBT with video and audio. Using multimedia in web-based training can also drive up the cost.

### **Determined by Hour**

Since e-learning takes less time than classroom training, a 40 hour class is usually completed in 25 hours with e-learning. Reference resources state that the typical cost for a high-end e-learning module would be:

25 Hours Training X \$16,000 Development Cost/Hour = \$400,000

### **Determined by Page**

Using the measurement of an assumed time it takes for the user to complete the training is not a sound metric to represent e-Learning. E-Learning/web-based training is self-paced, so the amount of time required varies. A better way to get at this problem is to figure out how many pages or screens are required to complete the training module.

A good way to develop a fair and representative numbers for e-learning is to start with the training manual concept. This is logical approach because more often than not, e-learning is not created from scratch, but from a content source point, say a training manual. If e-learning is started from scratch, then a form of a training manual is created that may include wire frames, scripts, and a story board, during the instructional design process.

Factors in determining the cost per e-learning page or screen include, writing the content, designing the page and adding illustrations, and producing multimedia effects if used.

- **Content and Graphics**-A generous rule of thumb for writing the content and adding graphics is 3 to 5 days per page. Simple pages can take less than an hour, if the writer knows the subject matter.
- **Audio and Video**-Audio and video are still measured in time, with video costing about \$35,000 an hour.

## **Savings**

In determining the ROI for e-learning, you need to factor in the savings due to *reduction in time spent on training*.

### **Reduction in Time Spent on Training**

Typically, the time a worker must spend being trained is **reduced by about 40% using e-learning**. This metric is cited in various studies comparing traditional classroom instruction to equivalent CBT instruction at Xerox, IBM and Federal Express.

## Improved Performance

As mentioned earlier, our collective experience with deployment of good CBT and WBT is that it is ***not only faster than classroom training (an nearly always cheaper over 2-3 years)***, it is also better. People learn better with e-learning. They remember what they learn more accurately and longer (retention) and they are better able to use what they learn to improve their performance (transfer). Across many different studies and reports from the military, education and industry show 15-25% increases in learning achievement.

## Example of ROI Calculations

Assuming a traditional classroom training plan that includes 500 trainees who each experience a week of training, travel for half of them (250 employees), the time constraint of a 3 month roll-out (5 trainers, 10 locations)-all compared to an equivalent eLearning scenario using very conservative assumptions, including an opportunity cost rate of \$400 per day.

|  | Classroom Training | E-learning       |
|--|--------------------|------------------|
| Wages of Trainees (\$20/hr, burdened)  | \$ 400,000         | \$ 240,000       |
| Travel Costs (50% of people traveling) | \$ 250,000         | \$ -----         |
| Trainer Wages                          | \$ 47,500          | \$ 11,400        |
| Trainer Travel                         | \$ 20,000          | \$ -----         |
| Development Costs (custom training)    | \$ 160,000         | \$ 400,000       |
| Delivery Systems (1st year amortized)  | \$ -----           | \$ 35,000        |
| <b>Totals</b>                          | <b>\$877,500</b>   | <b>\$686,400</b> |

These figures indicate that the e-learning approach, given conservative assumptions, ***saves approximately 20% in the first year of implementation. In the second and later years*** when development costs are not a factor for this course, ***the savings for eLearning grows to nearly 50%***. In addition, the CBT or WBT can be rolled out in half the time, once developed.

## In conclusion

The return-on-investment for eLearning can be **50%-60%** greater than for traditional training, which itself can have a **4x ROI**, if done properly.

- (1) "2003 e-Learning Survey", Taylor Nelson Sofres plc, London, United Kingdom, 2003.
- (2) To (8) Web Based Training, 2<sup>nd</sup> Edition, by Margaret Driscoll, Wiley, John & Sons, Copyright 2002, p. 6-7.
- (9) "Using the Web for Learning: Advantages and Disadvantages" by Kevin Kruse, E-Learning Guru.com, Copyright 2004.
- (10) "Performance Improvements through Web-Based Training" by Anne Kitchen and Jim Ryan, AMEC.com, Copyright 2004.
- (11) "Using the Web for Learning: Advantages and Disadvantages" by Kevin Kruse, E-Learning Guru.com, Copyright 2004.
- (12) "Using the Web for Learning: Advantages and Disadvantages" by Kevin Kruse, E-Learning Guru.com, Copyright 2004.
- (13) Web Based Training, 2<sup>nd</sup> Edition, by Margaret Driscoll, Wiley, John & Sons, Copyright 2002, p. 8.
- (14) Web Based Training, 2<sup>nd</sup> Edition, by Margaret Driscoll, Wiley, John & Sons, Copyright 2002, p. 9.
- (15) "Performance Improvements through Web-Based Training" by Anne Kitchen and Jim Ryan, AMEC.com, Copyright 2004.
- (16) "Performance Improvements through Web-Based Training" by Anne Kitchen and Jim Ryan, AMEC.com, Copyright 2004.
- (17) "Using the Web for Learning: Advantages and Disadvantages" by Kevin Kruse, E-Learning Guru.com, Copyright 2004.
- (18) "Performance Improvements through Web-Based Training" by Anne Kitchen and Jim Ryan, AMEC.com, Copyright 2004.
- (19) "Performance Improvements through Web-Based Training" by Anne Kitchen and Jim Ryan, AMEC.com, Copyright 2004.
- (20) "Performance Improvements through Web-Based Training" by Anne Kitchen and Jim Ryan, AMEC.com, Copyright 2004.
- (21) Web Based Training, 2<sup>nd</sup> Edition, by Margaret Driscoll, Wiley, John & Sons, Copyright 2002, p. 8.
- (22) "Benefits of Web-Based Training", Online Learning Center, Copyright 2005,  
[http://208.179.70.229/benefits\\_article.html](http://208.179.70.229/benefits_article.html)
- (23) "Benefits of Web-Based Training", Online Learning Center, Copyright 2005,  
[http://208.179.70.229/benefits\\_article.html](http://208.179.70.229/benefits_article.html)
- (24) "Benefits of Web-Based Training", Online Learning Center, Copyright 2005,  
[http://208.179.70.229/benefits\\_article.html](http://208.179.70.229/benefits_article.html)
- (25) "Return-on-Investment (ROI) from E-Learning, CBT and WBT" by Ron Kurtus, Kurtus Technologies and The School for Champions [www.school-for-champions.com/elearning/roi.htm](http://www.school-for-champions.com/elearning/roi.htm), Copyright 2004.