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eLearning Cost Analysis

By nature, quantifying the costs of knowledge assets and management is an obstacle even the most skilled project managers struggle to hurdle. It's no secret, developing a cost analysis for an eLearning project can be a daunting task, and rightfully so. Despite the largely universal imperative to improve training, increase productivity, and minimize training costs there exists a significant hole in the industry standards for cost justifying an eLearning investment. This is in no way to be confused with an absence of strong supporting logic, rather it represents an absence in organization, perpetuated by the difficulties of measuring investment proposals that draw heavily on the enhancement of a business's intangible assets such as people, education, and value chains.

That being said, it doesn't have to be this way. You certainly do not need an MBA to put together a compelling and useful eLearning business proposal. It does, however, require scrupulously uncovering all the related benefits and costs of the purposed project in relation to your current training program. At what point is it financially wise to make <u>the jump to</u> <u>eLearning</u>?

The purpose of this paper is to aid you in that decision by providing a comparative framework of the associated costs of eLearning and Instructor-led Training (ILT). We examine two empirical examples comparing the cost analyses of eLearning and ILT at varying levels of training and scale. Further, we have developed a comprehensive list of possible intangible benefits of eLearning that may be useful for your company to consider. We have categorized these concepts into two basic tiers of costs and benefits as defined by the *Chief Learning Officer Solutions for Enterprise Productivity*. They are as follows:

- 1. **First-tier** "Benefits realized through the elimination of existing costs." This commonly includes overhead expenses such as travel, salary, materials, and development costs. We will explore these costs throughout the provided comparative examples of eLearning and ILT based in a "real-world" context.
- 2. **Second-tier** "Benefits achieved when companies leverage e-learning to support changes in the strategic direction of the organization in a way that positively impacts the bottom line." This might include factors like employee morale, turnover, business opportunities, client relationships, productivity, and support. Second-tier benefits are often intangible and as such can be difficult to assign a concrete value. It is also important to note that they are largely specific to your company or organization and



can fluctuate depending on your firm's individual business model. A detailed description and aspects of applicability are provided to help you determine the relative benefits to your training program.

Both methods of explanation provided for the following first-tier and second-tier attributes are designed to build a holistic and realistic understanding of the expected costs and potential benefits of different training solutions. It is our intention that you be able to apply the core principles of this framework to your unique training needs and determine the best route forward (and it may be helpful to have an <u>understanding of eLearning "Levels"</u>).

First-tier

In the following example scenarios we will outline unique assumptions influencing the development of both eLearning and Instructor-led Training programs meant to represent industry averages and relative training norms. The example topics are simply meant to provide context to the cost analysis logic. Examples are purposefully designed to be broadly applicable.

Example 1: Occupational Safety Training, Level 1-2 (Basic)

Company ABC is a leading provider in power line construction and maintenance. They have just renewed a national strategic partnership with workers, regulatory agencies, and professional associations in the electrical transmission and distribution industry to reduce injuries and deaths among electrical workers. In so doing, they must re-train employees across their national sites to meet ongoing updated safety standards.

ILT

Training Level – It is determined that the training will be developed at a level 1-2. The primary objective of this training is to prove to regulatory agencies that employees have met the annual safety compliance standards for the lifespan of the agreement, meaning each employee will be required to take the course annually to fulfill the specified requirements.

Training Cycles - The lifespan of this training program is three cycles. Each cycle will take place over the course of one year; in total lasting three years. The required course itself takes two days to complete (standard 8 hour days), requiring 6 hours total of developed instructor-led training.





Training Facilities - Training will occur at four regional training centers spread across the US. Each training center will host five classes comprised of fifty participants and one instructor each. This requires renting twenty classrooms (five at each regional center) at \$50 a day per classroom. There will also be a \$500 cost for all hardware rental expenses.

Participants - There will be a total of 1000 participants taking part in each training cycle. Each participant earns an average wage of \$30 an hour. 50% of employees will require travel and accommodation expenses. This includes an average flight cost of \$400 plus \$250 for hotel and food over the two day course. In addition, \$5 on office supplies and \$20 on printing and reproduction will be spent on each participant.

Instructors - There will be one instructor per classroom of fifty participants. This totals twenty instructors each earning an average wage of \$40 an hour. 50% of instructors will require travel and accommodation expenses. This includes an average flight cost of \$400 plus \$250 for hotel and food over the two day course.

eLearning

Training Level - Just as the ILT program, this training will be developed at a level 1- 2. Similarly, the primary objective of this training is to prove to regulatory agencies that employees have met the annual safety compliance standards for the lifespan of the agreement, meaning each employee will be required to take the course annually to fulfill the specified requirements.

Training Cycles - The lifespan of this training program is three cycles. Each cycle will take place over the course of one year; in total lasting three years. The required course itself is a two hour module. In general, eLearning hours are equivalent to 1/3 of ILT hours. In this case, six hours of developed ILT training equates to two hours of developed eLearning.

Training Facilities - Training will be administered via the web and is asynchronous, meaning employees can undergo training anywhere, anytime. No facility or hardware rentals are necessary.

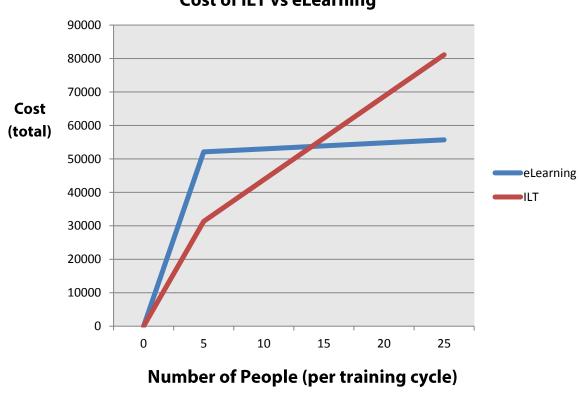
Participants - There will be a total of 1000 participants taking part in each training cycle. Each participant earns an average wage of \$30 an hour. Participants will not need to travel; therefore, there are no flight and hotel costs. All materials are available through the LMS. As a result, there are no expenses for office supplies and printing.



LMS - Training is asynchronous and does not require spending on instructor travel and wages. Tracking, recording, grading and dissemination are managed through an LMS. The LMS chosen in this scenario is Inquisig R3. The payment plan chosen is for an installation. This was determined as the best choice financially given the number of participants (1000) and the lifespan of the training program (three years). It includes the base cost of the software at \$9950, a one-time instillation fee of \$400, a monthly hosting fee of \$400, and an annual maintenance fee of \$1950.

Data:

The graphs below illustrate the projected costs of an eLearning module vs. an ILT course using the previously discussed assumptions and scenario. The line graph highlights the point at which the cost is the same for both training programs based on the number of participants. In other words, this can help to demonstrate the best training solution for your business based on the number of employees being training. This allows us to outline specific costs within the broader context of the training in its entirety.

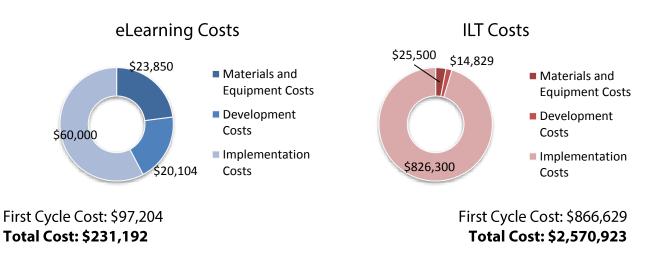


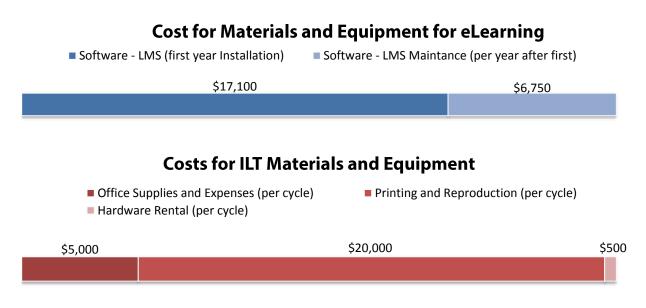
Cost of ILT vs eLearning





eLearning vs. ILT Cost Comparison for Level 1-2







eLearning Development Costs											
Front End Analysis (total)			Instructional Design (total)			Stoyboarding (total)					
Graphic Production (total)			Video Production (total)			Audio Production (total)					
Authoring/Programming (total)		QA Testing (total)			Project Management (total)						
SME/Stakeholder Reviews (total)		Pilot Test (total)			Maintenance Cost (per cycle)						
\$2,004	\$2,768	\$2,298	\$2,204	\$890	\$1,390	\$3,416	\$1,30)2 \$1,	,292 \$ <u>:</u>	1,422 \$	874 \$244

ILT Development Costs

- Front End Analysis (total)
- Lesson Plan Development (total)
- Student Guide/Workbook Development (total)
- Test and Exam Creation (total)
- SME/Stakeholder Reviews (total)

- Instructional Design (total)
- Creation of Handouts (total)
- Powerpoint and/or Other Visual Development (total)
- Project Management During Development (total)
- Maintenance Cost (per cycle)

\$1,047 \$2,360 \$1,945 \$1,1	165 \$1,868 \$2,532	\$1,380 \$993 \$1,192 \$347
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Implementation Costs for eLearning

All Participant Wages (per cycle)



ILT Implementation Costs

- Facility Cost (per cycle)Instructor Travel Cost Flight, Hotel, Food (per cycle)
- All Instructor Wages (per cycle)

- Participant Travel Cost Flight, Hotel, Food (per cycle)
- All Participant Wages (per cycle)

\$2,000	\$325,000	\$6,500	\$480,000	\$12,800

Example 2: Crisis Management Training, Level 3-4 (Advanced)

Division ABC of the Federal Emergency Management Agency is responsible for providing their affiliated organizations with a consistent, common approach to emergency management and preparedness. This requires that they be able to ensure consistent training on the most up-to-date emergency procedures and protocols. They have been tasked with providing an upper-level management train-the-trainer course to public officials and emergency personnel in a new protocol on chemical spills. Paramount to the training goal is immersing learners in an interactive simulation where they are faced with realistic crisis situations within a structured learning environment.



ILT

Training Level – Due to the interactive nature of the program, training will be developed at a level 3 - 4. The objective of this training is to teach vital procedures to high-level emergency officials that will then administer local training within their related organizations. The training is entirely evaluated on the learner's retention of content resulting in a higher level of training.

Training Cycles - The lifespan of this training program is two cycles. Each cycle will take place over the course of one year; in total lasting two years. The course itself takes one day to complete (standard 8 hour day), requiring 3 hours total of developed instructor-led training.

Training Facilities - Training will occur at two regional training centers across the US. One training center will host thirteen classes comprised of fifteen participants and one instructor each. The second training center will host twelve classes of fifteen participants and one instructor each. This requires renting twenty five classrooms all together (thirteen at one, twelve at the other) at \$50 a day per classroom. There will also be a \$300 cost for all hardware rental expenses for each cycle.

Participants - There will be a total of 300 participants taking part in each training cycle. Each participant earns an average wage of \$40 an hour. 75% of employees will require travel and accommodation expenses. This includes an average flight cost of \$500 plus \$150 for hotel and food for the one day course. In addition, \$10 on office supplies and \$40 on printing and reproduction will be spent on each participant.

Instructors - There will be one instructor per classroom of fifteen participants. This totals twenty five instructors each earning an average wage of \$50 an hour. 75% of instructors will require travel and accommodation expenses. This includes an average flight cost of \$500 plus \$150 for hotel and food over the two day course.

eLearning

Training Level – Just as the ILT course, the interactive nature of the training program requires development at a level 3 - 4. The objective of this training is to teach vital procedures to high-level emergency officials that will then administer local training within their related organizations. The training is entirely evaluated on the learner's retention of content resulting in a higher level of training.



Training Cycles - The lifespan of this training program is two cycles. Each cycle will take place over the course of one year. In total lasting two years. The course itself is a one hour module. In general, eLearning hours are equivalent to 1/3 of ILT hours. In this case, three hours of developed ILT training equals one hour of developed eLearning.

Training Facilities - Training is web based and asynchronous, meaning employees can undergo training anywhere, anytime. No facility or hardware rentals are necessary.

Participants - There will be a total of 300 participants taking part in each training cycle. Each participant earns an average wage of \$40 an hour. Participants will not need to travel; therefore, there are no flight and hotel costs. All materials can be accessed from the LMS. As a result, there are no expenses for office supplies and printing.

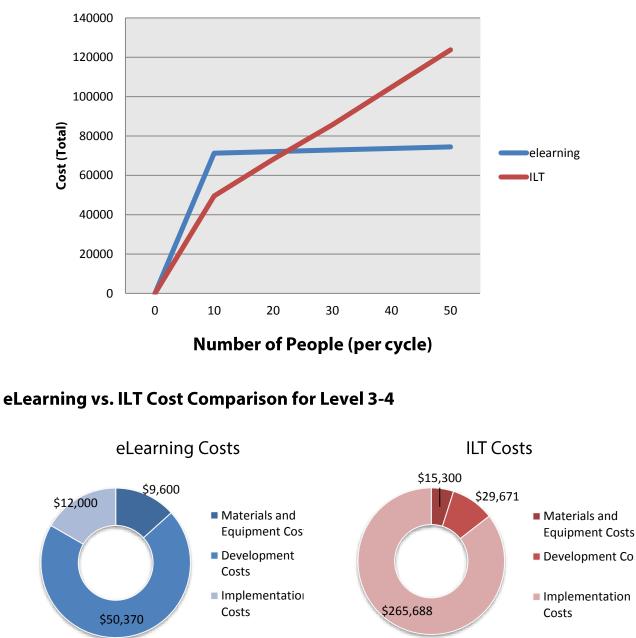
LMS - Training is asynchronous and does not require spending on instructor travel and wages. Tracking, recording, grading and dissemination are managed through an LMS. The LMS chosen in this scenario is Inquisiq R3. The payment plan chosen was opening a SaaS account. This was determined as the best choice financially given the number of participants (300) and the lifespan of the training program (two years). It includes a monthly payment of \$800 for the duration of the project.

Data:

Just as the first scenario, the graphs below illustrate the projected costs of an eLearning module and an ILT course using the assumptions for the second scenario. The line graph highlights the point at which the cost is the same for both training programs based on the number of participants. Again, this can help to demonstrate the best training solution for your business based on the number of employees being training.







Cost of ILT vs eLearning

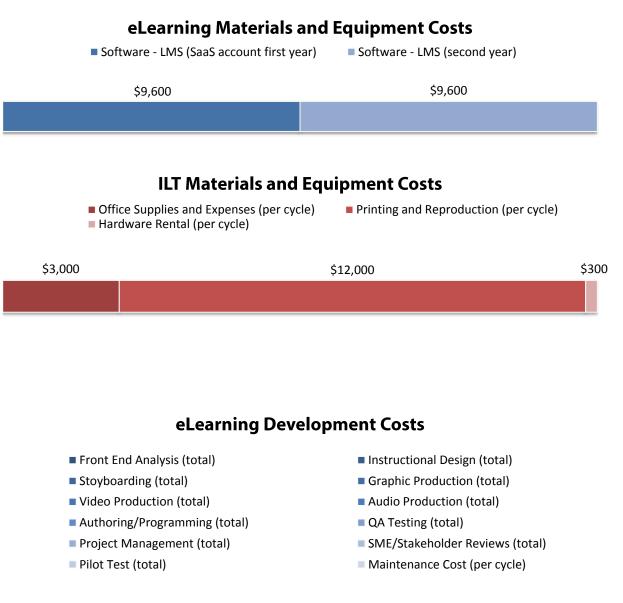
First Cycle Cost: \$71,970 **Total Cost: \$94,453**

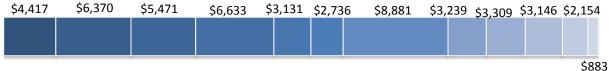
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First Cycle Cost: \$310,659

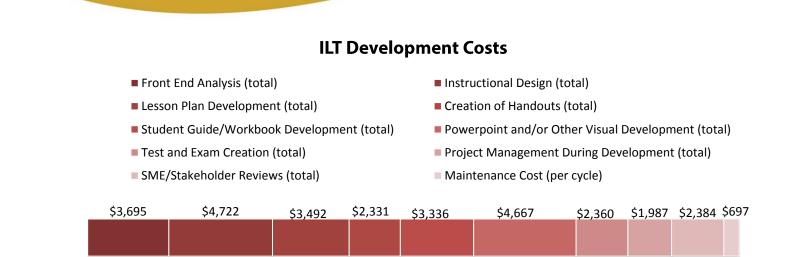
Total Cost: \$592,343











eLearning Implementation Costs

All Participant Wages (per cycle)

\$12,000

ILT Implementation Costs

Facility Cost (per cycle)
Instructor Travel Cost - Flight, Hotel, Food (per cycle)
All Instructor Wages (per cycle)
\$1,250
\$146,250
\$12,188
\$96,000
\$10,000



Second-tier

Intangible Benefits

Outlined in the appendix below are various intangible benefits associated with eLearning implementation. They are not meant to represent a fixed financial entity that all training initiatives will yield. In fact, these benefits are highly subject to the nature of the training and more broadly the mission of your company. It is, however, vital to issue a warning to those converting traditional training to eLearning in relation to the potential benefits. Many companies mistakenly attempt to save money on high-fidelity traditional courses by replacing them with a lower-fidelity electronic solution¹. In this process, they sacrifice the learning potential of the course. Cutting costs in the wrong areas can be the ultimate undoing of your revamped training program. In the long run, the learner's content retention and your subsequent investment will suffer dramatically². The potential to realize great benefits in eLearning exist with many types of training curricula; however, providing quality training must remain paramount if you are to see any of these expected benefits in full.

- 1) Training Add-on
- 2) <u>Training Product</u>
- 3) <u>Selling Competencies</u>
- 4) Competition for eLearning
- 5) <u>PR Modules</u>
- 6) <u>Self-paced Learning</u>
- 7) Manage Scheduling Difficulties
- 8) Easily Update Training
- 9) <u>Standardize Teaching Procedures</u>
- 10) Manage Large Training Initiatives
- 11) Employee Accountability
- 12) Ensuring Content Uniformity
- 13) Knowledge Look-up System
- 14) Help Desk Support
- 15) Informal Support
- 16) Audit Training Process
- 17) Reduce Employee Turnover

2) ² <u>http://clomedia.com/articles/view/dos_and_don_ts_for_measuring_cost_benefit_analysis/1</u>





^{1) &}lt;sup>1</sup> <u>http://clomedia.com/articles/view/dos_and_don_ts_for_measuring_cost_benefit_analysis/1</u>

Training Add-on

Does this apply to you?

- Do you sell a product to which a paid training module can be added?
- If you produce software, can your users benefit from training that features software simulation?

Added Value

There are often considerable benefits to be had by adding training to an already existing product. This is especially true when there is client demand for employee performance support systems that can help your customers use your product better or faster. Think of this training as a manual to your product. In conjunction with the added value created by including a training module to your product, also consider the expected value of newly created sales.

Training Products

Does this apply to you?

- Do you have any specialized knowledge that you can package into training modules and sell to an identifiable market?
- Is there some unique content that you can capitalize and earn direct revenues from your clients?

Added Value

Similar to that of training add-ons, the intention of training products is to build revenue through the direct sale of training modules. Training products, however, focus on the training exclusively. ELearning provides a way for you to sell specialized knowledge assets through packaged training, allowing your company to significantly grow your client base.





Selling Competencies

Does this apply to you?

- Is a major part of your value proposition to the market an internal competency?
- Do many of your clients require specific certifications?
- Do you enjoy market leadership such that you can create a certification requirement for the use of your products or services?

Added Value

In many cases, clients cannot receive desired certifications without extensive internal training. It's even possible that entire revenues depend on everyone receiving specific training, and as such, there is potential to significantly increase revenues by offering clients certification opportunities.

Competition for eLearning

Does this apply to you?

- Do your direct competitors offer eLearning training products?
- Do you sense that training can represent the difference between your firm and your competitor?
- Do you feel pressure from customers to match competitive offers including support services like eLearning?
- What if you lose a customer who defects to a competitor because of poor training?
- Do you have clients that ask for online or computer-based training because your competition has instructed them to ask you this question knowing you lack the capability?

Added Value

An innovative eLearning training solution can easily allow your company to stick out above the competition, and inversely, the absence of a progressive training model can automatically alienate you from potential clients. ELearning offers a compelling value proposition by minimizing the time to productive employee. Not offering such a capability may cause a customer to defect, taking their profits to another vendor.





PR Modules

Does this apply to you?

- Could you reuse training programs for marketing campaigns?
- Why not leverage a knowledge asset as much as possible by reusing the content in all relevant contexts?
- You train your internal employees on products; why not train your customers on the benefits of purchasing your products?
- Could you repackage training materials into demo disks that they give to prospective customers?

Added Value

Think of this benefit in terms of Public Relations (PR). PR seeks to pave the way for product sales by providing information that constituents regard as more objective and unbiased than ordinary sales materials. A well-crafted online training module about the objective benefits of your product can provide a substantial "PR" benefit. A short, interactive training module can simultaneously excite the buyer about your product and provide the rational arguments to support a purchase.

Self-paced Learning

Does this apply to you?

• What is the time gap between new employee hire and the beginning of instructor-led training?

Added Value

Any gap is a financial loss because your company is paying salary and not getting full productive work back in return. If employees can begin training immediately and have the flexibility to integrate training into personalized schedules, then lost time is reduced substantially. Closing the training gap can represent several days or weeks of extra productivity.



Manage Scheduling Difficulties for Groups

Does this apply to you?

- Is it difficult to work around everyone's schedule to hold training sessions together?
- How much time and productivity are lost when training must be scheduled at inconvenient times for employees?

Added Value

Coordinating schedules can delay the training to the point that a serious productivity gap appears. If you ideally would train employees right away but their schedules will not allow a meeting for several weeks, you have lost valuable time applying these productivity enhancements to the employee's work. In addition, when these employees travel to live training they cannot perform their jobs. If you give them self-paced training then they can take the training at a time that fits with their individual schedules. This asynchronous "anytime, anywhere" benefit can be substantial.

Easily Update Training Universally

Does this apply to you?

- Would you like to make changes and additions to a training system without involving an outside contractor?
- Does your rapidly changing work environment evolve faster than your training can keep up?

Added Value

Once a system is installed and the appropriate templates created, adding content to an eLearning system is very simple. You can keep pace with the most frenetic wok environment and reap the associated productivity rewards.





Standardize Teaching Procedures

Does this apply to you?

- Does everyone teach the same curriculum or do you experience substantial deviations in the material presented to employees?
- In your training program are there several instructors teaching their own version of the material without any standard approach?

Added Value

Online training captures the best training practices and uniformly teaches them to your workers. Multi-instructor classroom training leaves the employee subject to the vagaries of the particular instructor.

Manage Large Training Initiatives

Does this apply to you?

- Do you have a company-wide training deadline approaching?
- Do you have impending regulatory training for which everyone must be trained by a certain date?
- Do you have "flip-the-switch" software system changes for which every user must be retrained?

Added Value

Since most in-house training departments are geared for training the incidental new users for a system, they are commonly not prepared for everyone-at-once type training events. Online training provides the flexibility and scope to deal with scale related challenges.

Employee Accountability

Does this apply to you?

- Has proficiency testing been effectively incorporated into your internal training program?
- Do you stop short of testing because it consumes too many manual resources with your current infrastructure?





Added Value

Testing and tracking within a learning management system holds the employee accountable for attending and performing well during the training. Tracking features also allow you to easily identify specific areas of your training that are acting as desired and those that must be improved. This saves time and money on wasted training as well as contributing significantly to content improvement.

Ensuring Content Uniformity

Does this apply to you?

- Do you have a decentralized organization with content contributors spread out over many separate facilities?
- How do you coordinate such a training effort while distributing matching content?

Added Value

Accelerate the pace of change and flexibility through an easy to use, browser-based content authoring interface. Most companies use manual processes to standardize content across multiple contributors. ELearning saves this effort and can capture information in a form that can be immediately distributed universally.

Knowledge Look-up System

Does this apply to you?

- How much time is lost because of employees inability to effectively use a software tool, piece of machinery, or a lack familiarity with a particular work procedure?
- If these workers could quickly access a job aid could they finish the task with less delay?

Added Value

ELearning can provide an accessible "knowledge look-up system" that can in turn act as an easy, on-the-spot training solution. This encourages training as an ongoing process rather than a single information overload. Job aids on the esoteric functions within your company will directly increase productivity.





Help Desk Support

Does this apply to you?

• Has your accumulated training inefficiencies begun to manifest themselves as higher internal help desk support costs?

Added Value

Quality eLearning can address the root and act as a preventative measure to training problems rather than a singular temporary fix provided by help desk support. Effectively training employees and customers will minimize their need to call the help desk for answers to their questions. ELearning projects can significantly decrease your current support costs. When estimating this value, be sure to isolate the support costs specific to the area that eLearning will address in relation to the support coverage area in its entirety.

Informal Support

Does this apply to you?

• Are more experienced employees excessively distracted by questions from new or illtrained employees that could be easily avoided by an effective training program?

Added Value

Just as eLearning can minimize help desk support, it can similarly cut productivity costs associated with informal support. Training of this sort can be a knowledge resource center for inexperienced employees and as a result free up both their time and senior employees that otherwise would have been distracted from their job task. This allows all employees to use their time more effectively and focus inter-employee dialogue on important more complex issues and mentoring.





Audit the Training Process

Does this apply to you?

- Is your business subject to state or federal regulations for which you must certify that your employees have completed the proper training?
- Do US sentencing guidelines impact the training curriculum at your company?

Added Value

You can audit the training process to show the relevant authorities that the company has trained the specified personnel in the proscribed manner. In the case where an employee breaches a regulation and the company demonstrates that it has taken proactive steps to prevent such behavior through training, then the Federal Government will reduce any fine it may levy against the firm, as outlined in the US Sentencing Guidelines. Defense Contractors, Pharmaceuticals and Investment Banks, to name but three industries, can benefit substantially from online regulatory and ethical compliance training.

Reduce Employee Turnover

Does this apply to you?

- What is the turnover rate within your company?
- When you conduct exit interviews do departing workers complain about lack of growth and personal development?
- Do you lose employees to bigger firms that provide superior employee development programs?
- How much does it cost your firm to hire and make productive a new employee?
- How many new people do you hire a year?

Added Value

Companies that do not offer meaningful training can find it increasingly more difficult to attract and retain highly motivated individuals. In fact, analysts believe that employees avoid companies that will not invest in their training. When companies do invest in their employees they defect at increasingly lower rates. This can be a substantial benefit.





Sources

- 1) ICS Whitepaper Is E-Learning Worth It?
- 2) E-learning Guild Chapman Alliance, Research Study, September 2010 *ILT and WBT* Average Development Costs
- 3) <u>http://clomedia.com/articles/view/dos and don ts for measuring cost benefit ana lysis/1</u>



