

Are We Kidding Ourselves About the ROI of e-Learning?

Frank L. Greenagel, PhD
Managing Director, Guided Learning Systems LLC

***Summary:** ROI is a chimera, a mythical beast that diverts attention from a task that is challenging enough—how to use the conferencing and collaboration capabilities of the Internet to bring an enriched learning experience to people widely separated by geography and time. An ROI analysis appears to be the exception rather than the rule, even for large organizations. When the analysis is performed, cost reduction is what makes it work. Measurement of results (the Return in the ROI) is not conducted with much consistency or rigor, and is rife with dubious assumptions and little hard data. One can show an impressive ROI when you cut millions in costs and assume that your return (e.g., the results of the training) is pretty much what it was with conventional training, but that assumption simply brings us back to the difficulty of measuring the outcomes of training.*

Hardly a week goes by without a newsletter or magazine article informing us of the astonishing ROI, usually running into the millions of dollars, that company X achieved with e-Learning. This ROI mantra is running strong, and the fact that these articles have often been placed by the training vendor of the software application that resulted in these savings, and are more than a little self-serving, is not apparent to the casual reader. No less obtrusive are the almost as frequent articles explaining how to calculate the ROI of e-Learning. Harder to find are the occasional notes of skepticism or caution regarding the difficulties of monetizing the R in ROI, which often get lost in the clutter and the clatter. It may be helpful, therefore, to summarize and restate the situation and put this matter of e-Learning metrics into a larger context.

A little history of training budgets

At one time, training budgets were usually distributed among a half-dozen departments—manufacturing, sales, service, customer service—and only management development and new

hire orientation costs appeared on the HR/ Training budget. That at least was my experience as Director of Industrial Relations in a *Fortune* 50 company in the 1970s. Subsequently, training budgets were aggregated, although control usually remained with the operating department, and there was often a separate budget for each new product introduction or new system installed, which rarely appeared on the HR/ Training account. That exception aside, training expenditures became more visible than ever, although they were rarely large enough to attract much attention except during cost-cutting drives, when they were among the first to be cut. More recently, as major projects such as a Learning Management System were proposed, their considerably larger cost did attract attention, and since those systems were often proposed with the cooperation of the IT department, they were likely to be subjected to the criteria and analysis that major IT projects received—the same kind of cost-benefit analysis that might be expected of a new inventory control system or an outlay for CRM. In others words, ROI.

The advent of the large-scale IT-like expenditures coincided with the move by a few major corporations to shift large parts of their training from traditional classroom instruction to some form of e-Learning. That generally meant a shift from fragmented expenditures with perhaps dozens of vendors to a single vendor—which in turn meant greater visibility. Another result was elimination of substantial sums for travel and lodging. One of our clients, for example, found that 70% of its \$4 million training budget was spent on travel and lodging rather than on instruction, a proportion that was not unusual among major corporations. Computer-based training and, later, e-Learning promised to reach many more trainees than the classroom could accommodate, and at a lower cost, so the stage was set to migrate major portions of training to some form of network-based system. Naturally, the cost of infrastructure had to be added to that of the instruction, and so, also very naturally, these enhanced expenditures prompted management (in some cases) to ask that all significant training programs be subjected to the same business justification that every other major IT project was subject to—ROI. So what traditionally had been fragmented, unaggregated, and relatively minor expenditures became aggregated, significant, and, presumably susceptible to formal cost-benefit analysis.

Are we using these metrics?

Before we get any more deeply involved in the central issue of how to monetize the impact on revenue, productivity and/or customer satisfaction—an issue training activities share with Knowledge Management and CRM—let us consider first how prevalent is the effort to subject training activities to an ROI analysis.

According to an article in *Darwin* magazine, “Today most companies—as high as 85 percent in a recent survey by Meta Group—claim they have a process for performing ROI analysis. But only 12 percent of those surveyed actually calculate ROI for all their software projects across the company.” If organizations are not religious about an ROI analysis for their software projects, they are less likely to be so about most training expenditures. Indeed, that appears to be the case. “The Training department begins to do a first-generation ROI,” according to a consultant quoted in *Training* magazine, “when a half million-dollar expenditure for an LMS creates an awareness of the need to build a business case for an expenditure of that magnitude.” The ROI in that instance was all about removing cost. Essentially all the articles I’ve seen about the ROI of e-Learning focus on cost savings. In fact, it appears that not only is an ROI analysis the exception rather than the rule, when the process is performed, cost reduction is what makes it work. Measurement of results (the Return in the ROI) is not measured with much consistency or rigor.

In spite of all the enthusiasm in corporate training programs for e-learning, an American Society of Training and Development study found that 67 percent of the training directors interviewed do not measure the effectiveness of their net-based programs at all. This study found that while 95 percent of surveyed organizations gauged trainees’ reactions to courses (e.g., how well they liked the courses), only three percent of respondents make a real effort to measure the business results of training programs.

So, on the one hand, we have amazing success stories in the trade and business press of millions

saved, and on the other, it appears that very few companies do much at all in the way of evaluation, and almost none are thorough-going in their use of ROI. Small-to-medium organizations, in my experience, are using little more than smile sheets to evaluate their training programs, and very few large organizations are using either Kirkpatrick or ROI in a disciplined way. The success stories we read about are the exceptions, it appears—prepared by vendors whose products show up well and by firms interested in touting their own business acumen. A leading learning consultant even claims “business tools for enterprise software [are] now available for training, which offers the promise of automated ROI.”

My intent is not to debunk the success stories, for I do believe that computer-based training and e-Learning can be cost-effective as well as a means of enriching the learning experience and bringing learning activities to geographically-dispersed audiences at a convenient time and place. I even believe that, in some situations, ROI analysis makes considerable sense. Should a decision on a major training program be independent of its cost? Certainly not, but our first priority should be greater effort to measure the effectiveness of the training independent of its cost, and only later to consider the trade-offs between costs and results, even while including a number of intangibles in the evaluation.

Measurement of training effectiveness is not a new issue, of course, but the emphasis on purely financial measurements is. Only at Level IV does Kirkpatrick approach the impact on business results, and advocates of the Balanced Scorecard focus on processes and relationships rather than primarily on financial metrics. Nevertheless, ROI has caught the attention of the business schools,

and it appears that several of them have students beavering away to develop ever more sophisticated formula for calculating the ROI of training, and specifically, of e-Learning. That is to their credit, and I would not too quickly dismiss their efforts as futile. Still, we may be permitted to reflect a moment before we are asked to embrace this latest attempt to quantify the business value of training. We should have little doubt that one can show an impressive ROI when you cut millions in costs and assume that your return (e.g., the results of the training) is pretty much what they were with conventional training. But that assumption simply brings us back to the difficulty of measuring the outcomes of training. Let us consider some of the issues surrounding the use of ROI analytics, and then consider the conditions under which its application might make sense.

A few simple propositions

I’d like to offer a few simple propositions, most of which are appropriate for medium-to-large organizations, and all of which are appropriate to smaller firms.

1. Much of the learning and development that occurs in the workplace is *not* the result of formal training but happens in communities of practice within the organization. In acknowledgement of this, Knowledge Management systems to capture and codify this understanding are proposed, and some apparently are successful, or at least potentially interesting. But any attempt to measure the impact of this tacit learning on the operating profit of the enterprise would be quite a stretch. A better expenditure, in my estimation, would be to encourage and support those communities of practice by providing the time and, where appropriate, even the conferencing systems which may allow them

to flourish over time and space.

2. Many training programs produce no measurable return on the expenditure—some merely prevent a problem or a potential liability, and others are done in order to comply with a federal regulation. In other words, they are a cost of doing business. Executive conferences and retreats are not expected to produce any near-term results, nor are the many courses in fulfillment of CEU requirements for attorneys, accountants and other professionals. Sometimes development activities are perks, but much of the formal training is based simply on the cultural assumption in this country that more education is better—an assumption not shared in other parts of the world.

3. Developmental training—English as a Second Language, “remedial” reading and math—is unlikely to be a particularly productive use of a limited training budget, but often is central to an organization’s efforts to recruit and retain minority employees, as well as an important part of many firms’ community relations efforts. How do you monetize the return on those expenditures?

4. Whether trainees can perform on the job is not unrelated to whether they have attained the course objectives, but there is rarely a one-to-one correspondence between the former and the latter. The reason is that most job performance is not the result of intelligence, schooling, or even specific knowledge, but of the other competencies—the habitual attitudes, motivation, and behaviors that Spencer noted in his explanation of workplace competence. Goleman makes a similar point in his analysis of emotional intelligence. The most knowledgeable people are

not necessarily the best performers, and so any direct link between training and individual performance is broken. Given that, it may be unwise to link accountability for performance to training unless you have a large enough sample over an extended period of time. I understand Magnavox has excellent data on productivity, a large sample over many years, and sufficient control over the variables to give them confidence in their linkages of training and output.

Phillips (1996) summarizes how Magnavox Electronics Systems Company derives its ROI calculations as it evaluates all five levels of its 18-week literacy program, which covers verbal and math skills for employees. While this is not an e-learning program, it does demonstrate the process of moving through the levels of evaluation, a process that would be equally applicable for the use of e-learning as the delivery method for training content.

Level 1: Reaction was measured by surveys given after the course was completed. Level 2: Learning was measured using the Test of Adult Basic Education. Level 3: Behavioral changes were measured using daily efficiency ratings. Level 4: Business results were measured through improvements in productivity and reductions in scrap and rework. Level 5: ROI was calculated by converting productivity and quality improvements to monetary values.

5. A skeptical mind reading the trade press might infer that management doesn’t know what to look for in a training program, or how to measure it, so they use ROI, something they do understand, in the hope that it will provide the justification for a significant investment in e-Learning. Because ROI is sensitive to any reduction in cost, a move from traditional instructor-led training to e-Learning is likely to

show a positive ROI—in some cases a dramatically positive one. A few organizations, it appears, are using whatever metrics they can cobble together in order to justify what they want to do. Since ROI is an accepted measure and much less trouble than Kirkpatrick's Level IV, it will be used whenever it can show a potential gain, even if the data and assumptions on which it is based are soft or dubious.

6. In an ROI calculation, the advantage of a particular training program usually comes down to a cost savings, so the non-monetary aspects of training are neglected. Every attempt to create a quantifiable R in the ROI calculation (except for cost savings) is likely to involve arbitrary and unquantifiable assumptions and contingencies.

It is extremely difficult to develop a solid scientific method for comparing the various delivery methods. Joy and Garcia point out that even if a legitimate scientific model could be designed to properly control for each independent variable, its usefulness for predicting learning outcomes would, in all likelihood, be extremely limited. This implies that the researcher would have to impose artificial controls to produce true empirical results.

You have to make some worst case assumptions about sexual harassment and discrimination training, for example, in order to produce a positive ROI for those courses; the same holds for much of the extended training that new sales reps and management trainees get in large corporations—they are as much an acculturation process as a means of training people in processes that drive the strategic goals of the organization.

7. There is a limit to what can be validly and consistently measured, but there are two

significant metrics of which we can be fairly confident: *Whether trainees complete the course and whether the training program has achieved its instructional objectives.* Failure-to-complete data is the dirty little secret of the e-Learning industry. Because it is so appalling (often greater than 70%) some vendors dismiss it as irrelevant. Nonsense. It is an excellent measure of the relevance and interest-value of the course content. It is not difficult to measure learning achievement, although it is not often done, or done well. But I would have no difficulty holding a vendor or training department accountable for both completion rates and learning achievement. Beyond that (Kirkpatrick's Levels III and IV), measurement is problematic. Except in a few cases where one has a large sample of performance data, attempts to link specific courses to precise productivity measures is likely to involve a lot of assumptions and dubious data.

When an ROI analysis makes sense

Given those caveats and cautions, when might one consider an analysis of the ROI of a project? There are several situations where I believe the attempt to do so makes sense.

- When there is a good reason to believe that knowledge or skill (not the higher level competence, which involves attitudes, personal characteristics, and habits) is a significant driver of value for the organization;
- When a direct connection to the organization's goals are asserted for a highly visible project—as is typically the case for Knowledge Management and CRM systems;
- When weighing alternative approaches to a major decision—make or buy, traditional or technology-based, although there may be other factors as important and not as quantifiable

which ought to be weighed;

· When the level of investment in a single system or vendor is significant. Soft benefits matter, but they should be discounted heavily because they are too hard to account for financially. Make sure your ROI benefits are auditable. If you are going to use hard numbers for projected benefits, decide how you will test to see if the projections are realized before you ask for the go-ahead.

In other situations, the assumptions are too unquantifiable and the contingencies too tenuous to maintain that the Return side of the ratio is objective. If the work affected by the training activity is not critical, it is not likely to show much net value in an ROI analysis. A specious justification burns resources, harms the credibility of the proponent, and usually convinces no one.

Are we kidding ourselves about the ROI of e-Learning? For most organizations, ROI is a chimera, a mythical beast that diverts attention from a task that is challenging enough—how to use the conferencing and collaboration capabilities of the Internet to bring an enriched learning experience to people widely separated by geography and time. That's potentially a much more meaningful question, and one that is likely to yield a real return.

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Greenagel spent 15 years as CEO of three multi-million dollar divisions of major corporations; since 1983 he has been Managing Director of Guided Learning Systems LLC. He is co-author of the forthcoming book, *Wired Seminars Handbook*, and can be reached at flg@guidedlearning.com. An extended treatment of the online apprenticeship learning model can be found at www.wiredseminars.com.