

Progress Report - eLearning Forum Metrics Committee

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Summary of Work Accomplished

- Active Online Dialog using Yahoo Groups
 - Committee Member Contributions
 - Articles found by Members
- Presentation is my attempt to summarize the dialog

Search for a Metric

- Improvement in IQ?
- Power Usage Down?

ROI (Arjun)

The latest and greatest buzz word

What does ROI mean?

- Time of measurement
 - Before Online Learning (Predictive)
 - After Online Learning (Historical)
- What kind of measure
 - Quantitative (a number implying precision)
 - Qualitative (a subjective quantity)

Quantitative

- Can we write an equation?
- Simple Equation:
 - \$ of Benefit / \$ of Cost over a specified period of time (*e-learning:Return On Investment*, Donald Clark, CEO Epic Group- Article has details on benefits and costs)
- Discounted Cash Flow
 - Multi-Term Equation requiring detailed information on timing of benefits and costs
 - Need to iteratively solve for the interest rate

Quantitative Benefits

- Improved Business Performance - hours translates to dollars
 - Shorter Sales time,
 - Greater success rate in Sales
 - Shorter Repair time
 - Shorter Product Development time
 - Shorter times handling complaints
 - etc.

Quantitative Costs

- Setup Costs for New Operation
 - new staff, staff training
 - equipment, computers, software
- Designing, Writing, Producing, Revising Online Materials

Qualitative Benefits

- Customer Satisfaction
- Employee Retention
- Match or Exceed Competition

ROI Elements (Barbara Hayes-Roth)

1. Improve the learning experience

More effective, engaging, personalized

2. Improve individual learner satisfaction

Employee enrollment, completion, enthusiasm

3. Improve business-related learning outcomes

Employee knowledge, performance, mobility, retention

4. Improve cost-effectiveness of learning investment

Increase participation, achievement, outcomes; Decrease amortized cost

=> 5. Improve employee-related contributions to bottom line

Complexities in Defining ROI!

- Parameters difficult to measure, often subjective in nature
- “eLearning is often a part of a larger initiative” - Kristian Folkman
- “Just another shell game. “unless your organization’s primary mission is vending training, your aren’t entitled to claim that training makes a measurable bottom-line contribution” Ron Zemke via Jan Bourret
- Corporate goals may benefit elearning argument. Network Appliance, Cisco – corporations whose products support the Internet are often active supporters of eLearning.

How have other investigators handled complexities?

- Harvard Business School

Harvard Business School

- Case Studies

Measure of Success

by David Rath in Online Learning (May 2001)

- ROI has been the Achille's heel of training
- Old Model Kirkpatrick's Four Levels of Evaluation
 - Smile Sheets or Student Evaluation (Level 1)
 - Pre-Post Testing (Level 2)
 - Workplace incorporation of new learning (Level 3)
 - Business Results (Level 4)
- **ROI(Level 5)**
<http://www.onlinelearningmag.com/new/may01/cover.htm>

Measure of Success

by David Rathes at Online Learning

- Children's Healthcare of Atlanta
- Problem; Incorrect procedures were being followed on routine lab test.
- Two emergency department educators & \$1,000 developed a module and within one month of its release all staff had completed the training >
“ The Procedure Error rate dropped to zero”

Measure of Success (Cont'd)

by David Rath at Online Learning

- Elise Olding, CLK Berkeley says “But you can focus on just-in-time personalized learning events, and how they fit into the framework of business, that’s more worthwhile.”
- “time-to-market” software development firms typically spend “**six to eight weeks** training their salespeople on a new product’s feature’s” **this is too long**

Measure of Success (Cont'd)

by David Rath at Online Learning

- Virginia Ertl of GE Captial “achieved competencies”
- compared paper-based case study with computer-based simulation and found a **65%** increase in competency with elearning

Measure of Success (Cont'd)

by David Rath at Online Learning

- Toni Hodges of Verizon
 - Ask managers a series of questions about the degree to which their expectations of job performance improvement have been met. Then I ask them to put a dollar value on it. She claims actual measurements of ROI analyses and finds that they are “dead on”.

Measure of Success (Cont'd)

by David Rath at Online Learning

- Christine Pope, Director of eLearning services for SmartForce in Redwood City, encourages customers to take a three-tiered approach:
 - cost savings
 - performance improvement
 - competitive advantages or bottom-line results

Measure of Success (Cont'd)

by David Rathes at Online Learning

- A recent study by the **Delphi Group**
- Sales and Customer service representatives are seeing the greatest returns from online learning. Two-thirds of companies questioned had implemented some form of online learning, and more than one-third ranked **sales and marketing** as the area that had seen the greatest advantage, just ahead of **engineering and product development**.

How have other Discipline handled Complexities?

- *Comparisons*

Compare Online w/ Traditional

- Physicist: Balance Scale
- Musicians: tuning fork – listen for “beats” between calibrated tuning fork and instrument
- Chemistry: Calibration Reagents
- Statisticians: Controlled Experiment - one or more treatments vs. control (no treatment)

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Comparison Online / Traditional: Benefit and Cost Savings - Positives

- For sure:
 - no travel for learner
 - no instructor costs – unless moderated (at least no instructor travel)
 - no real estate – dedicated room
 - no printing and distribution, books, journals, handouts
- If done right:
 - easily available (can be learner scheduled)
 - chunkable
 - chunks are easily accessible
 - learner paced, student centered
 - learner modality selection
 - clarity (well edited and polished materials)

Comparison Online/ Traditional: Benefit and Cost Savings -Negatives

- Startup costs for an established traditional training organization
- Greater production costs
 - Interactive Software Development
 - Scripting, narration, audio & video editing
 - Graphics
 - Animation
 - Debugging

Who makes these assessments?

- “authority who judges the ROI is outside their context” - Jay Cross
- often need judgments and not measurements

Summary

- Evidence that online learning provides more R (Return) than I (Investment)
 - Abstract Basis: Savings in Labor, Travel, Space; Student-Centered Instruction, Availability vs. Traditional
 - Case Studies: Numerous Examples - Special Application Sales and Marketing
 - Online Learning Always the best? - No proof of that
 - Need Ensure Quality of the Product (Gary)