



How to Calculate Return on Investment (ROI) for Training Development

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Presenter Introduction

Ray Deatherage – *Director, Education and Training with GTI Energy*

- 33 years experience in the natural gas industry
- 25+ years experience with a gas distribution company
- 20+ years experience developing, delivering, and maintaining training and qualification programs
- Responsible for the training and qualifications of 1,200 company employees and 400 contractor personnel
- Designed and managed a \$20M training center



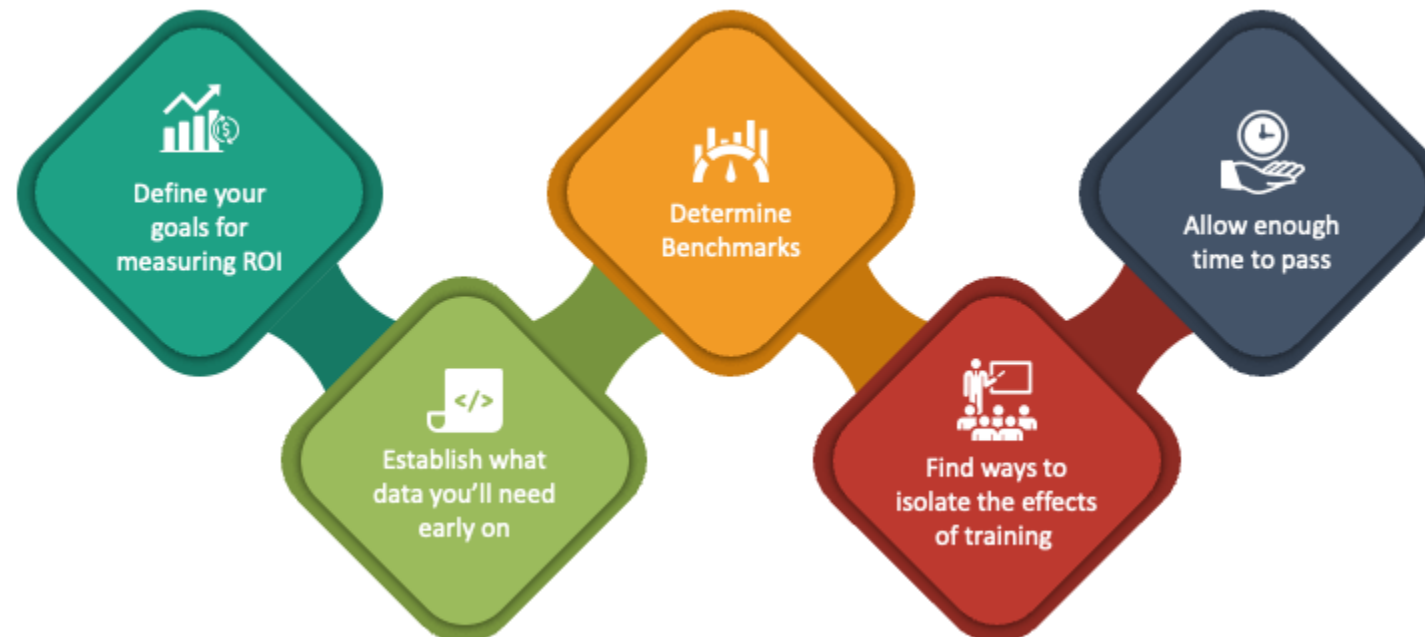
Welcome and Objectives

- Understand the ROI formula for training investments.
- Learn how to apply ROI to new training content development.
- Explore examples in calculating training ROI



Why ROI Matters in Training

- The rising need to justify training investments.
- ROI as a bridge between training and executive leadership.
- Real-world examples of high- and low-ROI training.



Why Training Investment is Needed (1 of 3)

The existence of a training program **doesn't guarantee** its effectiveness. Just because a course is available doesn't mean it:

- Meets the **actual needs** of the learners or the business,
- Delivers **engaging or updated** content,
- Uses effective **instructional strategies**, or
- Results in **measurable performance improvement** on the job.

Why Training Investment is Needed (2 of 3)

Some key reasons why existing training programs might **fall short** include:

- **Outdated content** that doesn't reflect current regulations, tools, or procedures
- **Lack of alignment** with job tasks or field conditions
- **One-size-fits-all delivery**, ignoring differences in experience or learning styles
- **Poor instructional design** — too much lecture, not enough interaction or application
- **Ineffective assessment** methods that don't verify real skill development
- **No follow-up** to reinforce or apply what was taught

Why Training Investment is Needed (3 of 3)

To truly improve performance and safety, training needs to be **evaluated and refined** based on:

- Task analysis and **field observations** (e.g., supervisors)
- Learner **feedback** and knowledge checks
- Job performance **metrics** (e.g., QA/QC audits)
- Alignment with **industry best practices** and regulations

The ROI Formula for Training

$$\text{ROI (\%)} = ((\text{Net Program Benefits} / \text{Program Costs}) \times 100)$$

- **Define Program Benefits:**

- Increased productivity/response time
- Reduced errors or rework
- Lower turnover
- Faster onboarding
- Increased customer satisfaction



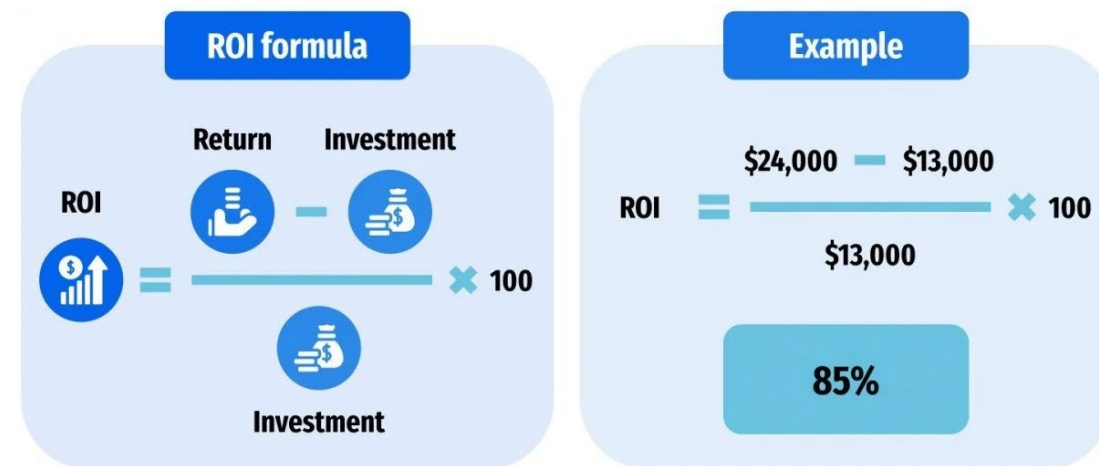
The ROI Formula for Training

$$\text{ROI (\%)} = ((\text{Net Program Benefits} / \text{Program Costs}) \times 100)$$

- **Define Program Costs:**

- Instructional design & content development
- SME time
- Software, tools, and media
- Trainer/facilitator costs
- Learner time away from work
- Licensing costs

- **Discuss the “Net Benefit”**



Example ROI Calculation

- Present a realistic example:
 - New onboarding program
 - \$50,000 development cost
 - 20% reduction in time to full productivity
 - \$120,000 productivity gain in Year 1
 - ROI = $((\$120,000 - \$50,000) / \$50,000) \times 100 = 140\%$**
 - **$\$70,000 / \$50,000 = 1.4 \times 100 = 140\%$ ROI**

ROI Formula: $((\text{Net Program Benefits} / \text{Program Costs}) \times 100)$

Training Development Goals

- On-boarding
- Progression training
- Refresher
- Remedial training
- New policy, procedure, new regulation, etc.
- Lessons learned (e.g., incident recap)
- Compliance related (e.g., PUC/State Commission)

The presence of existing training programs for these needs does not necessarily ensure that the content and delivery are effective.

ROI Factors

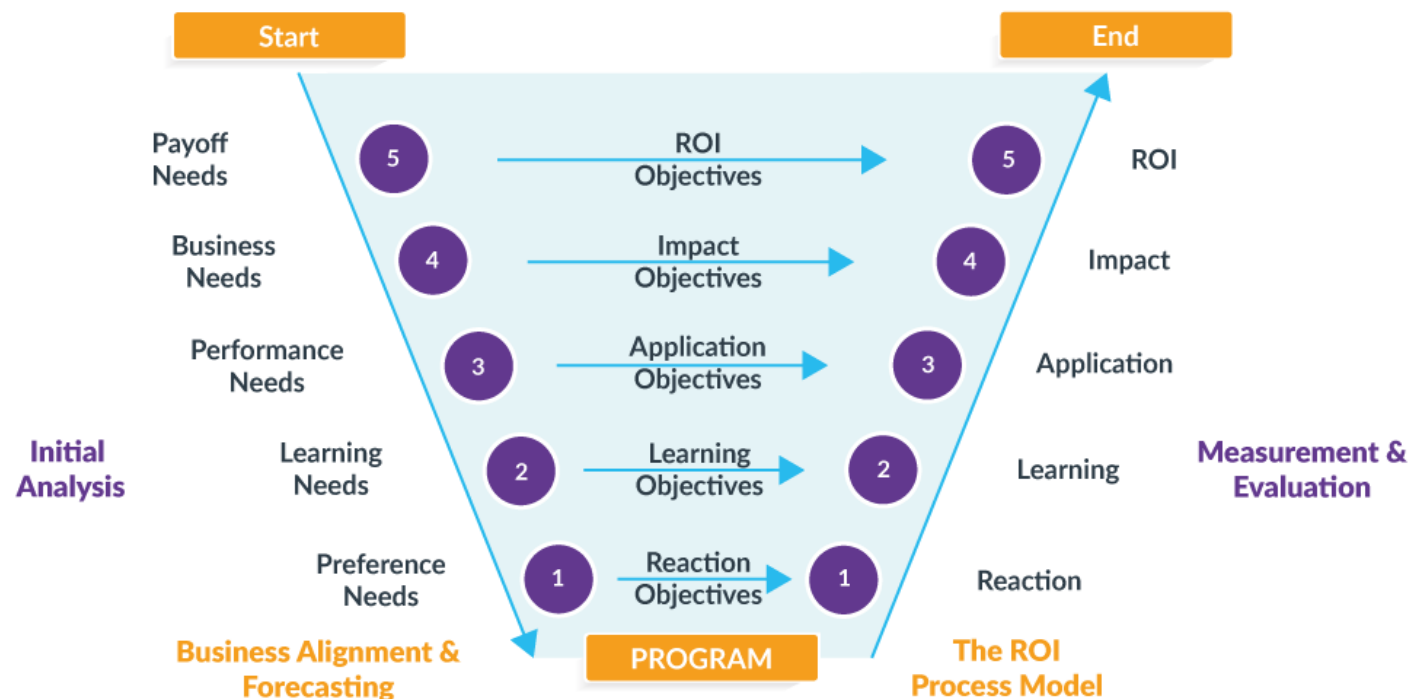
- Total affected population
- Frequency of training (e.g., annually, 3-year cycle, one and done, etc.)
- Duration of training
- Unproductive travel time/vehicle fuel cost
- Lodging and meal costs
- Instructor labor time (e.g., prep, delivery, clean-up)
- Training material cost (e.g., pipe, fittings, etc.)
- On-demand accessibility
- Safety risk considerations in classroom (e.g., soft tissue injuries, smashed fingers, etc.)
- High risk field activity that increases employee injury potential or system reliability
- Compliance related costs (e.g., investigations, remedial training, citations, fines, etc.)



Example ROI Calculation (Excel Spreadsheet)

- Plastic Pipe Joining Training Program
- Emergency Response Training Program

Phillips Model for Training Evaluation



The Phillips ROI Model

- In the early 2000s, Jack Philips came out with an accessory to the Kirkpatrick model to include a Return On Investment.
- This level, commonly referred to as level 5 evaluation, compares the program's overall cost to its monetary benefits.
- This is presented as a cost/benefit ratio.
- A key component to evaluating at this level is isolating the training benefits and eliminating any non-training factors that may have contributed to the organizational impact.

JACK PHILLIPS ROI
Phillips ROI Methodology





Questions?