



Return on Investment: How the ROI Methodology Shows the Value for Money for All Types of Projects and Programs in the Education Sector

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Objectives

After attending this session, participants should be able to:

1. Explain the need for an improved evaluation model.
2. Identify the key characteristics of the ROI Methodology.
3. List the advantages of using the ROI Methodology.
4. Describe how to build capability with the ROI Methodology.



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Resources



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Reasons Why Many Programs Fail to Deliver Impact and ROI



Waiting too late to start the evaluation process



Failure to align to key impact measures



Not expecting success



Failure to design for application and impact



Not isolating the effects of the program

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Factors Driving New Programs

- Classroom size
- Poverty
- Family factors
- Technology
- Bullying
- Student safety
- Funding
- Student health
- Parent involvement
- No Child Left Behind
- Student attitude and behaviors

Source: Public School Review



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In Addition to Programs Focused on

Student:

- Engagement
- Grades
- Achievement
- Advancement
- Graduation
- Absenteeism

Teacher:

- Staffing
- Diversity
- Development
- Retention

School leadership



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Many Projects and Programs Need to Be Evaluated Involving:

- Students
- Teachers
- Parents
- Community
- Principals
- School leaders
- Support team members

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For Example...

El Paso Independent School district wanted to evaluate 50 programs at the impact and ROI levels such as:

- | | |
|--|--|
| • Action learning framework initiative | • Social emotional learning initiative |
| • Exemplary schools program | • Student wellness program |
| • Focus on children and families program | • Summer school program |
| • Gifted and talented program | • College credit program |
| • Graduation coach initiative | • ESL programs |
| • Power Up/digital learning initiative | • Title I parent involvement program |
| • Pre-K iPad initiative | • EPSID @ Home |

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Initial Program Evaluations at the Ministry of Education in Oman

- Methods of analyzing exams and questionnaires using Item Response Theory (IRT)
- Modern methods of planning and follow up of the sciences laboratories supervisors
- Communication between school family and local community
- Scouts and guides trainer training course
- Program of international standards for assessing institutional performance
- Academic assessment and measurement program

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Evaluation Issues — Real or Imagined?

- No profits—no ROI?
- Lack of alignment
- Absence of hard data
- Too much politics
- Programs are necessary
- Multiple ROI Perspectives



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The Value Chain is Always There!

		<u>LEVEL</u>	<u>ISSUE</u>	<u>MEASURES</u>	<u>TARGETS[†]</u>
	<u>This is easy</u> Always measured	0	Inputs	Volume, Hours, Convenience, Cost	100%
			↓		
	<u>This is easy</u> Almost always measured	1	Reaction	*Relevance, Engaging, *Important, Useful, *New Content, *Intent to Use, *Recommend to Others	100%
			↓		
*Can predict	<u>Not difficult</u> Usually measured	2	Learning	Concepts, Trends, Facts, Contacts, Skills, Competencies	90%
			↓		
	<u>Possible</u> Often measured	3	Application	Use of content, Frequency of Use, Success with Use, Barriers, Enablers	30%
			↓		
	<u>Not so difficult to connect</u> Sometimes measured	4	Impact	Graduation Rates, Time, Quality, Costs, Image, Reputation, Engagement, Compliance	10%
Executives prefer			↓		
	<u>Possible for many programs</u> Rarely measured	5	ROI	Benefit Cost Ratio or Return on Investment, Expressed as a Percent	5%

[†] Best Practice: Percent of Programs Evaluated at this level each year.

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Concerns about Current Models



- Lack of focus on benefit-cost analysis
- Lack of focus on results
- Lack of emphasis on attribution
- Not CEO- and CFO-friendly
- Little focus on the chain of value
- Lack of focus on process improvement
- Unclear timing of data collection
- The inability to influence investment

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What is your experience with measuring ROI? (Select all that apply.)

- ☐ No experience with it.
- ☐ It has been suggested, but no action has been taken.
- ☐ I have attempted it.
- ☐ I have successfully conducted an ROI study.
- ☐ I have successfully conducted many ROI studies.
- ☐ I wish ROI would go away.

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Application of This Methodology

- Publicly traded businesses
- Privately held businesses
- Governments (federal, state, and local level)
- Nongovernment organizations
- Nonprofits
- Universities
- Community colleges and technical institutes
- K-12 school systems
- Foundations
- Charities
- Healthcare organizations
- Networks and alliances
- Associations
- Religious organizations



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Evaluation Framework

Levels of Evaluation	Measurement Focus	Typical Measures
0. Inputs & Indicators	The input into the project in terms of scope, volume, efficiencies, costs	Participants, Hours, Costs, Timing
1. Reaction & Planned Action	Measures participant satisfaction and captures planned actions, if appropriate	Relevance, Importance, Usefulness, Appropriateness, Intent to use, Motivation to take action
2. Learning & Confidence	Measures changes in knowledge, skills, and attitudes	Skills, Knowledge, Capacity, Competencies, Confidence, Contacts
3. Application & Implementation	Measures changes in behavior or actions	Extent of use, Task completion, Frequency of use, Actions completed, Success with use, Barriers to use, Enablers to use
4. Business Impact	Measures changes in business impact variables	Graduation rates, promotions, Quality, Time, Efficiency, Student satisfaction, Engagement
5. Return on Investment	Compares project benefits to the costs	Benefit-Cost Ratio (BCR), ROI%, Payback Period

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What is ROI?

$$\text{BCR} = \frac{\text{Program Benefits}}{\text{Costs}}$$

$$\text{ROI} = \frac{\text{Benefits} - \text{Costs}}{\text{Costs}} \times 100$$

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What is Design Thinking?

Basic Principles*

A problem-solving approach to handle problems on a systems level

A mind-set for curiosity and inquiry

A framework to balance needs and feasibility

A way to take on design challenges by applying empathy

A culture that fosters exploration and experimentation

A fixed process and a tool kit

A storytelling process to inspire Senior Executives

A new competitive logic of business strategy

A means to solve complex or wicked problems

A means to reduce risks

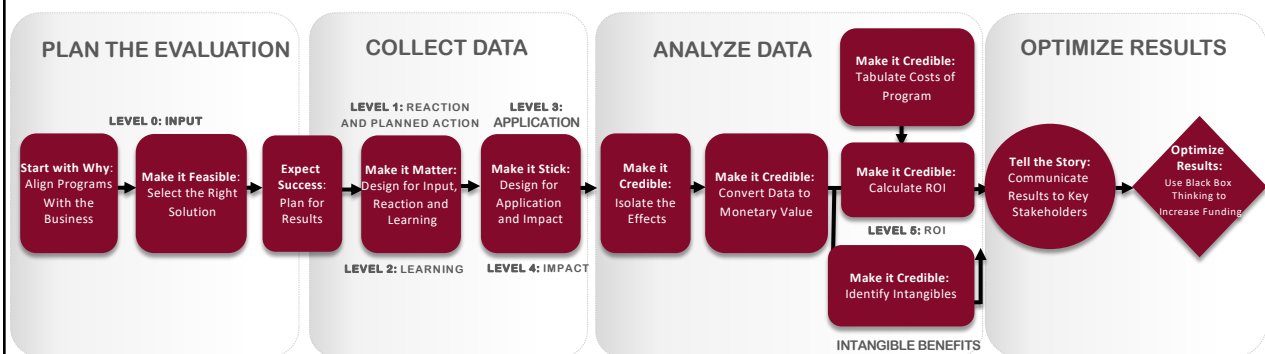
*Mootee, Idris. (2013). *Design Thinking for Strategic Innovation*. Hoboken, NJ: Wiley.

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The ROI Methodology Process Model

Designing for the Delivery of Business Results

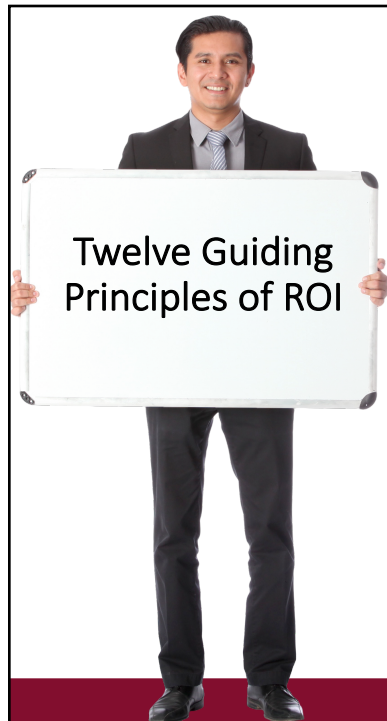


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Twelve Guiding Principles of ROI

1. When conducting a higher-level evaluation, collect data at lower levels.
2. When planning a higher-level evaluation, the previous level of evaluation is not required to be comprehensive.
3. When collecting and analyzing data, use only the most credible sources.
4. When analyzing data, select the most conservative alternative for calculations.
5. Use at least one method to isolate the effects of a project.
6. If no improvement data are available for a population or from a specific source, assume that little or no improvement has occurred.
7. Adjust estimates of improvement for potential errors of estimation.
8. Avoid use of extreme data items and unsupported claims when calculating ROI.
9. Use only the first year of annual benefits in ROI analysis of short-term solutions.
10. Fully load all costs of a solution, project, or program when analyzing ROI.
11. Intangible measures are defined as measures that are purposely not converted to monetary values.
12. Communicate the results of ROI Methodology to all key stakeholders.

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The ROI Methodology[®]

- Most used evaluation system in the world
- Endorsed by United Nations with a UN General Assembly resolution in 2008
- Endorsed by 26 federal governments
- Used by over 300 health care systems
- Used by over 150 colleges and universities
- Used by three-fourths of Fortune 500 organizations
- Used by major foundations such as the Gates Foundation

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Level	Recommended % of Programs	**Benchmarking %
0 Input	100%	100%
1 Reaction	100%	80%
2 Learning	80-90%	70%
3 Application	30%	49%
4 Impact	10%	37%
5 ROI	5%	18%

*Percentage of programs evaluated at each level each year

**Benchmarking 2020

What is your status?

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Characteristics of Programs Suitable for Impact & ROI

-  Cost of the program
-  Linkage of program to operational goals and issues
-  Importance of program to strategic objectives
-  Top executive interest in the evaluation
-  Visibility of the program
-  Size of target audience
-  Investment of time required

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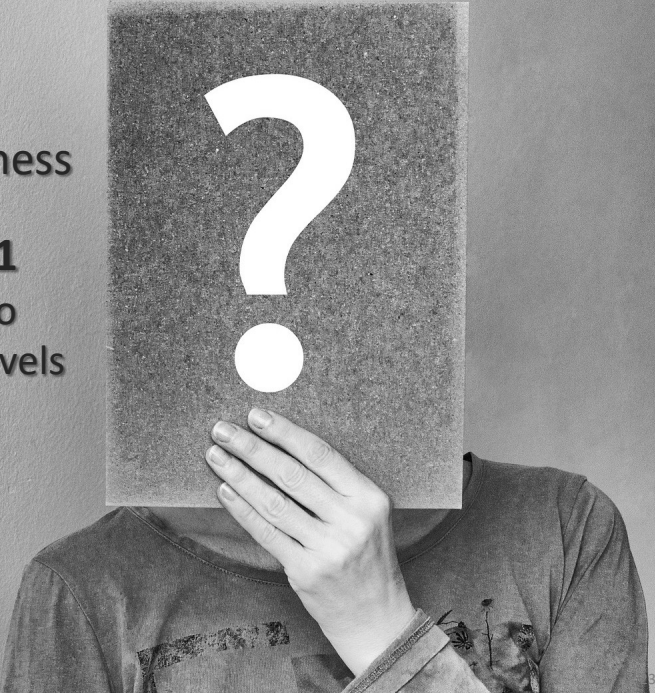
Start with Why

Align Programs with the Business

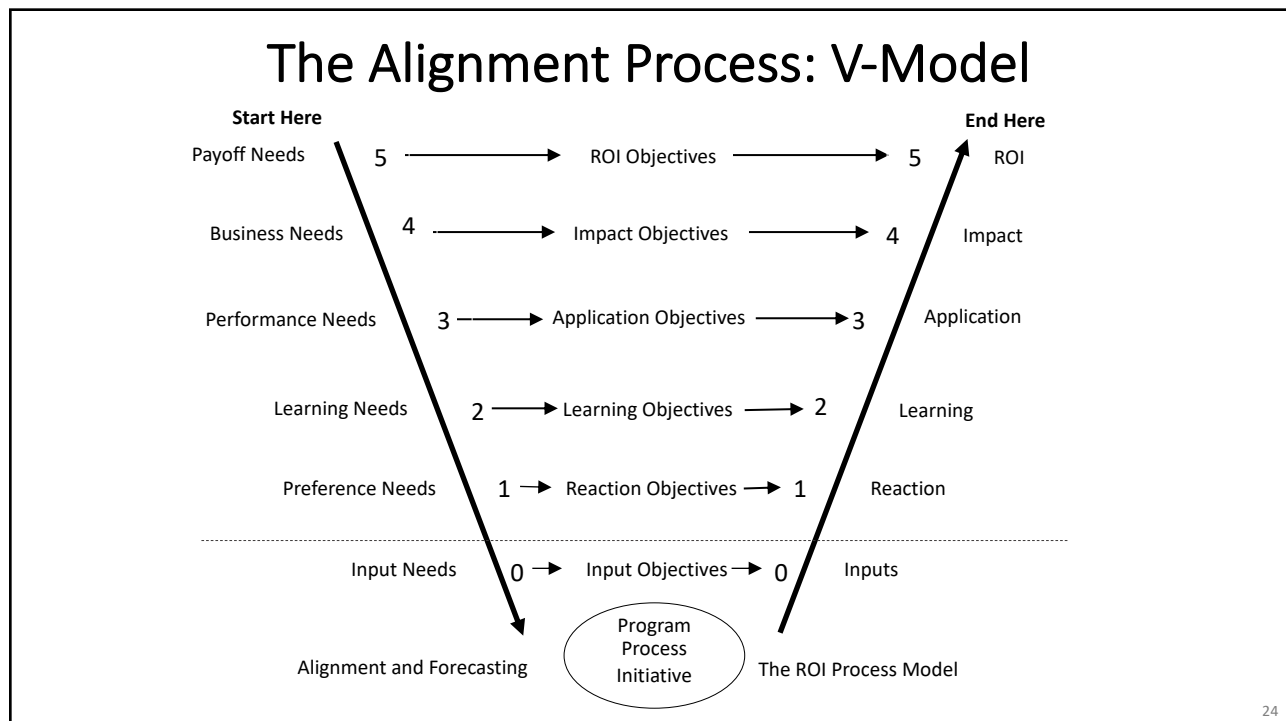
Design Thinking Principle 1

A problem-solving approach to handle problems on a systems levels

- Alignment is the key.
- Is it a problem or opportunity?
- Need specific business measures.



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Make It Feasible

Select the Right Solution

Design Thinking Principle 2

A mind-set for curiosity and inquiry

- What are we doing (or not doing) that's influencing the business measure?
- How can we achieve this performance?



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Is it the Right Solution?

1. Examine the data and records.
2. Initiate the discussion.
3. Reference a case study.
4. Use benchmarking from similar solutions.
5. Use evaluation as the hook.
6. Involve others in the discussion.
7. Discuss disasters in other places.



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Have a Discussion and Use Diagnostic Tools

Feasible solutions evolve through the understanding of context, empathizing with the target audience, and identifying performance gaps. The next step is to identify learning needs and how best to deliver relevant information. Forecasting outcomes based on inputs is sometimes helpful.

- Statistical process control
- Brainstorming
- Problem analysis
- Cause-and-effect diagram
- Force-field analysis
- Mind mapping
- Affinity diagrams
- Simulations
- Diagnostic instruments
- Focus groups
- Probing interviews
- Job satisfaction surveys
- Engagement surveys
- Exit interviews
- Exit surveys
- Nominal group technique



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Expect Success

Design for Results

Design Thinking Principle 3

A framework to balance needs and feasibility



- Set objectives at multiple levels
- Redefine success of program
- Expand responsibilities

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Developing Objectives for Each Level

Levels of Objectives	Focus of Objectives
Level 1, Reaction	Defines specific measures of expected reaction to the program as it is revealed and communicated to the stakeholders
Level 2, Learning	Defines specific measures of improvement in knowledge, information, contacts, and skills as the participants and other stakeholders learn how to make the program successful
Level 3, Application	Defines specific measures of actions taken that define success with application and implementation of the program
Level 4, Impact	Defines the specific impact measures that will change or improve as a consequence of the program's implementation
Level 5, ROI	Defines the minimum return on investment from the program, comparing program costs with monetary benefits from the program

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Rules for Objectives

1. Must be measurable and represent minimum acceptable performance.
2. Fewer objectives are better than many objectives.
3. Involve subject-matter experts and key stakeholders.
4. Keep them relevant to the situation, program, and key stakeholders.
5. Create stretch objectives, but make sure they are achievable.
6. Allow for the flexibility to change as conditions change.
7. Failure is OK; process improvement is the key.
8. Objectives are tools for progress, not weapons for performance review.
9. Most objectives should be time-bound.
10. Objectives provide the focus for design, development, implementation, and evaluation.

These rules are from a combination of publications:

J. J. Phillips and P. P. Phillips. *Beyond Learning Objectives: Develop Measurable Objectives that Link to the Bottom Line*. Alexandria, VA: ASTD Press. 2008.

P. P. Phillips and J. J. Phillips. *10 Steps to Successful Business Alignment*. Alexandria, VA: ASTD Press. 2012.

J. Doerr. *Measure What Matters: How Google, Bono, and the Gates Foundation Rock the World with OKRs*. New York: Penguin. 2018.

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Matching Evaluation Levels with Objectives

After completing this program, participants should:

1.	Decrease parent complaints by 20% in one year.	4
2.	Use problem-solving skills to uncover causes of problems.	3
3.	Be able to demonstrate the five steps to determine if there is an issue at home.	2
4.	Rate the teacher 4 out of 5 on presentation skills.	1
5.	Decrease the amount of time required to develop a proposal by 25%.	4
6.	Achieve a 20% ROI one year after program implementation.	5
7.	Perceive the ESL learning program to be important (4.5 out of 5).	1
8.	Decrease security breaches by 25% in six months.	4
9.	Conduct a proper investigation using the seven-step process in 95% of complaint situations.	3
10.	Score an average of 20 or better on security awareness quiz.	2
11.	Complete a conflict-of-interest questionnaire each year as part of the new ethics policy.	3
12.	Use all 10 skills for the digital learning program in at least 50% of programs.	3

1 = Reaction 2 = Learning 3 = Application 4 = Impact 5 = ROI

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Make it Matter

Design for Input, Reaction,
and Learning

Design Thinking Principle 4

A way to take on design challenges
by applying empathy

- Focus on the objectives
- Think about the definition of success
- Make it relevant
- Make it important
- Make it action-oriented

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Make it Stick

Design for Application and Impact

Design Thinking Principle 5

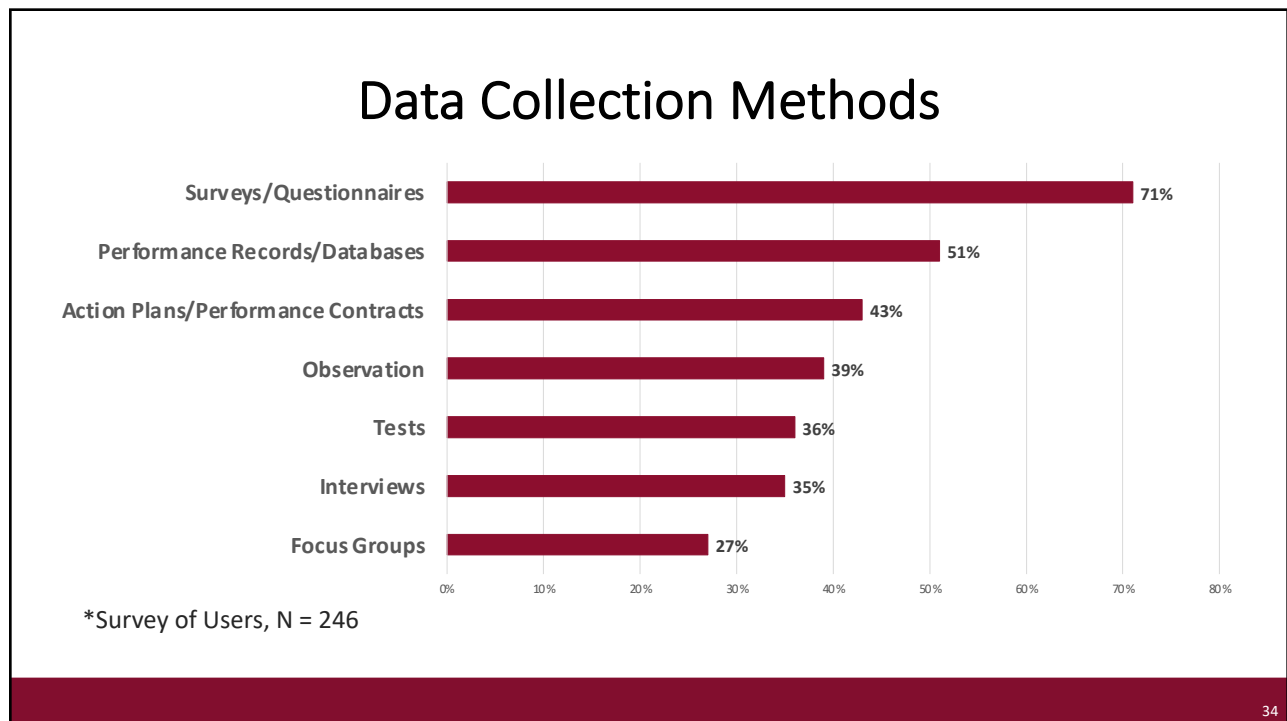
A culture that fosters exploration and experimentation

- Collect data
- Focus on objectives
- Ensure transfer to the workplace
- Design for application



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Make it Credible

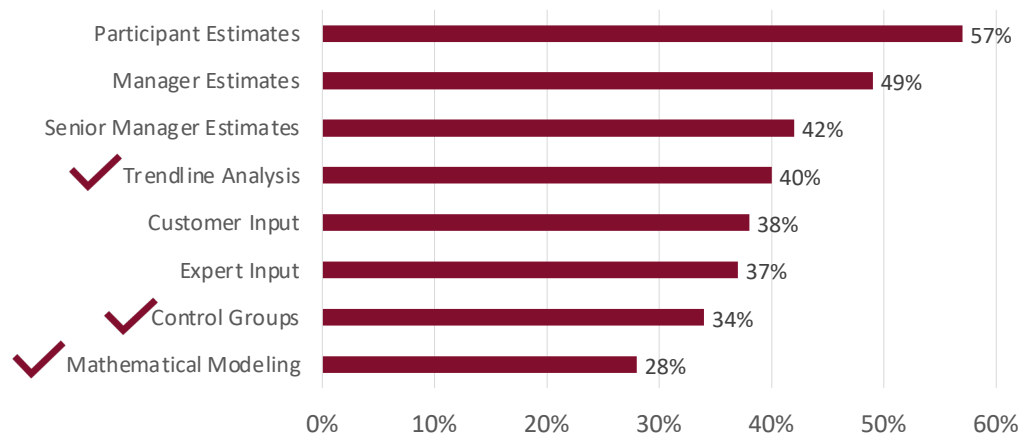
Measure Results and Calculate ROI

Design Thinking Principle 6 A fixed process and a tool kit

- Isolating the effects of the program
- Converting Impact data to money
- Identifying intangible benefits
- Tabulating cost of the program
- Calculating ROI

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Isolation Methods

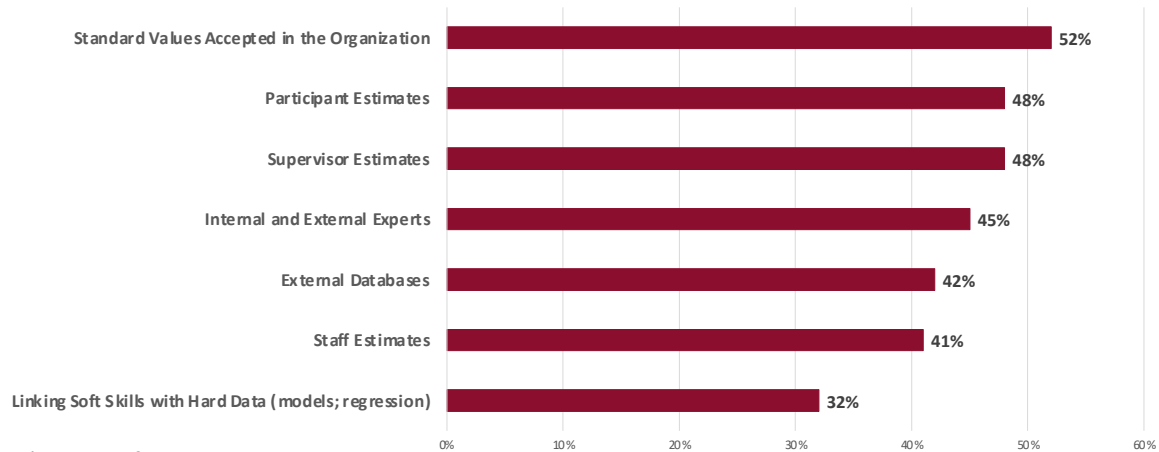


*Survey of Users, N = 246

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Data Conversion Methods



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Intangibles

- Adaptability
- Awards
- Career minded
- Caring
- Collaboration
- Communication
- Conflicts
- Corporate social responsibility
- Decisiveness
- Engagement
- Image
- Innovation
- Satisfaction
- Leadership
- Networking
- Organizational climate
- Reputation
- Stress
- Talent
- Teamwork

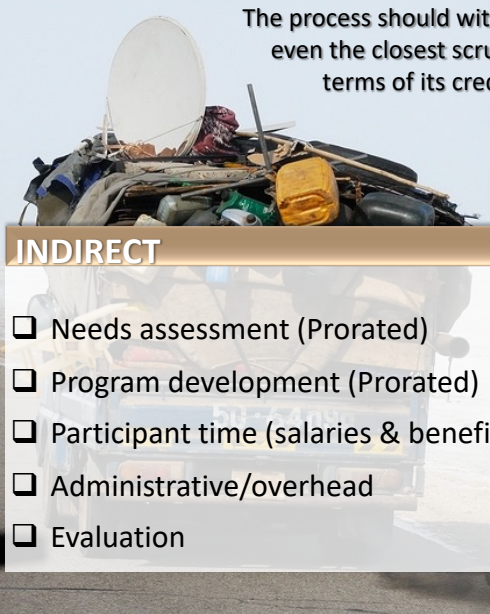


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Fully-Loaded Costs

“When in doubt, put it in.”
The process should withstand even the closest scrutiny in terms of its credibility.



DIRECT	INDIRECT
☐ Program materials	☐ Needs assessment (Prorated)
☐ Instructor/facilitator	☐ Program development (Prorated)
☐ Facilities	☐ Participant time (salaries & benefits)
☐ Travel, lodging, meals	☐ Administrative/overhead
	☐ Evaluation

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Example: Graduation Coach Program

Designed to increase graduation rate

1. Unit of Measure: 1 additional graduate
2. $V = \$24,900$ (Cost of one dropout)
3. $\Delta P = 11$
4. $\Delta P \times V = 11 \times \$24,900 = \$189,400$

Program cost: \$189,400

What is the ROI?

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ROI Calculation

$$\text{BCR} = \frac{\$273,900}{\$189,400} = \boxed{1.45}$$

$$\text{ROI} = \frac{\$273,900 - \$189,400}{\$189,400} \times 100 = \boxed{45\%}$$

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Tell the Story
Communicate Results to Key Stakeholders

Design Thinking Principle 7
A storytelling process to inspire senior executives

- Define audience
- Identify why they need it
- Select method
- Move quickly
- Consider one-page summary

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Optimize Results

Use Black Box Thinking to Increase Funding

Design Thinking Principle 8

A new competitive logic of business strategy

EVALUATION

➔

OPTIMIZATION

➔

ALLOCATION

Measure

Improve

Fund

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Cost vs. Investment Perception: The Reality

	Perception	Actions	Consequences
Executive Perception of Programs	It's a cost	- Control it - Reduce it - Eliminate it	- Partnerships are rare - Influence diminishes - Support is lost - Funding is curtailed
	It's an investment	- Maintain it - Enhance it - Protect it	- Business partnerships flourish - Client relationships improve - A seat at the table is earned - Funding is easier

How do your leaders view your programs? Costs or investments?

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What are your concerns about measuring ROI?
(Select all that apply.)

- ☐ It's too difficult.
- ☐ It takes too much time.
- ☐ No one is asking for this.
- ☐ It will kill my programs.
- ☐ I wish it would go away.

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ROI Certification Components

Pework	Identify a project or program for ROI evaluation. Prepare for the basics.
Comprehensive Learning Program	Engage in content-rich, interactive sessions that focus on your evaluation project.
Materials	Utilize a 300-page action-oriented workbook, several reference books, and job aids.
Virtual Assistance through Group Coaching	Seek help with your ROI evaluation, receive review and approval of your ROI study.
ROI Academy Library	Access dozens of tools, templates, and job aids in members-only portal.
Right to Use Materials	Receive reproducible ROI materials to use internally with clients and colleagues.
Certified ROI Professional (CRP)	Join more than 6,000 others who hold this unique, sought-after credential.

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How to Implement ROI

- Build capability.
- Get staff support.
- Create ROI networks.
- Publish case studies.
- Monitor and adjust along the way.

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The Payoff

- Justify/defend budgets.
- Align projects to business needs.
- Show contributions of selected projects.
- Earn respect of senior management/administrators.
- Build staff morale.
- Improve support for projects.
- Enhance design and implementation processes.
- Identify inefficient projects that need to be redesigned or eliminated.
- Identify successful projects that can be implemented in other areas.
- Earn a “seat at the table”.

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Be Proactive

Remember, when it comes to delivering results:

- Hope is not a strategy.
- Luck is not a factor.
- Doing nothing is not an option.

**Change is inevitable.
Progress is optional.**

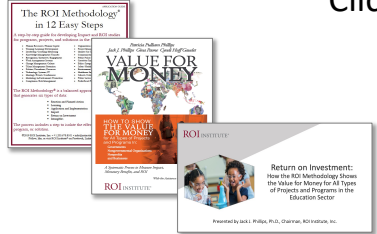
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Click the link below or scan the QR code to receive resources from today's session.

<https://roiinstitute.net/ectac-return-on-investment-in-the-education-sector/>



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Colleges and Universities

Traditional and Emerging Ways of Evaluating Success

Traditional (Usually Levels 0, 1, 2)	Emerging (Usually Levels 3, 4, 5)
Enrollment	Graduation Rates
Number of Courses Taken	Time to Graduate
Grades	Placement Rates
Diversity of Programs	Student Success
Quality of Faculty	Real Work Experiences
Investment in Facilities	ROI in Degree Programs
Student Activities	Student Debt Load
Student Satisfaction with Experience	Student Career Satisfaction
Reputation of University	Donations