ROI INSTITUTE®

Measuring the ROI in All Types of Programs and Projects: A Skill Building Workshop

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Setting the Stage

Program Objectives

After attending this program, participants should be able to:

1. Identify the drivers for ROI accountability.
2. Link programs to business results.
3. Validate/Select the right solution.
4. Develop objectives with key results.
5. Identify at least three ways to collect data.
6. Describe at least three ways to isolate the effects of a program.
7. Describe at least three ways to convert data to monetary values.
8. Identify intangible benefits.
9. Identify all costs of a program.
10. Calculate ROI, given benefits and costs.
11. Present and use the data from ROI evaluations.
12. Describe the success factors for ROI implementation.

What is the Value?

Exercise: Think about one of your programs or services. How would you define the value delivered by the program?

The "New" Definition of Value

Value must:

- Be balanced, with qualitative and quantitative data
- Contain financial and non-financial perspectives
- Reflect strategic and tactical issues
- Satisfy all key stakeholders
- Be consistent in collection and analysis
- Be grounded in conservative standards
- Come from credible sources

Exercise: What would you add to the list?

Your Program

1. Identify the program or service that you want to evaluate.

2. What's the purpose of your program?

3. What are the timing issues?

4. Who's involved?

5. What is the size of the audience?

Application of This Methodology

The ROI Methodology is being used to measure the success of any type of project, program, initiative, system, procedure, event, or process in these types of organizations:

- 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

ROI History

In the beginning:

- 200-year history
- Dominant method to measure results
- An imprecise measure
- Should never be used alone to make decisions

Traditional: Value of Capital Investments

- Buildings
- Equipment
- Tools
- Vehicles
- Companies
- Some Technology

About 15% of expenditures. ROI is the method.

Major "Show Me" Shift: Value of Non-Capital Investments

- Marketing
- Human Resources
- Quality
- Services
- Some Technology
- Staff Support
- Processes
- Procedures

About 85% of expenditures. ROI is now used here.

The Evolution of the CFO

- The CFO is the most critical job
- CEOs turning into CFO to measure success of other functions
- More CIOs reporting to CFO
- MORE CHROs reporting to CFO

Conclusion: ROI in non-capital investments (e.g., people) is rapidly growing and the CFO may be involved.

The "Show Me" Evolution

Term	Issue
Show Me!	Collect Impact Data
Show Me the Money!	and Convert Data to Money
Show Me the Real Money!	and Isolate the Effects of the Project
Show Me the Real Money, and Make Me Believe It!	and Compare the Money to the Cost of the Project

Exercise: Have you experienced this evolution? Explain.

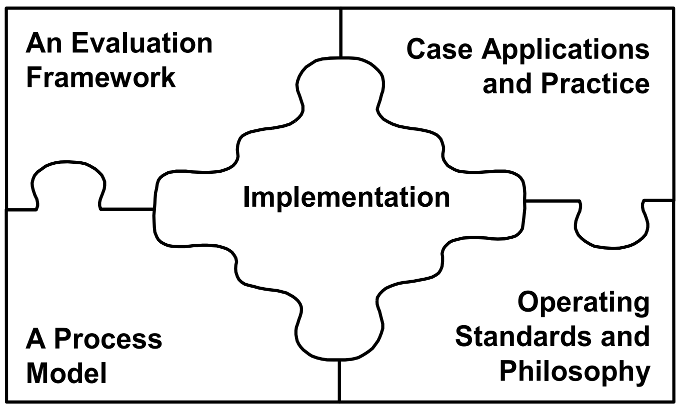
The ROI Methodology

Generates Six Types of Measures:

- Reaction and Planned Actions
- Learning
- Application
- Business Impact
- Return on Investment
- Intangibles

…and includes a technique to isolate the effects of the program or solution

A Credible Evaluation System Must Have Five Elements



The purpose of each part of the evaluation system:

- Evaluation Framework

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____

- Process Model

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____

- Operation Standards

____

____

- Application and Practice

- Implementation

Exercise: How does this compare with your current system?

Notes:

A Variety of ROI Applications – The Possibilities are Endless…

1. The British Columbia Interior Health System calculated the ROI for a new procedure for colorectal surgery.
2. The Ministry of Education in Dubai calculated the ROI for implementing a model classroom program.
3. A major U.S. city calculated the ROI for investing in housing to reduce the number of homeless citizens on the streets.
4. The Australian Capital Territory Community Care agency forecast the ROI for the implementation of a client relationship management (CRM) system.
5. Horizon Home, a comprehensive shelter and protection system for abused and battered women, developed the ROI for the services provided to clients.
6. The state of Alabama developed the ROI for a recidivism program for drug related offenders.
7. A major city calculated the ROI for a new disciplinary system and selection system to reduce unplanned absenteeism and bus delays.
8. The Healthy Living Group in a Canadian government healthcare system developed the ROI for a smoking cessation program for citizens under the age of 35.
9. The UN Women agency measured the ROI for a micro financing program to increase economic empowerment of women, especially of those who are most excluded.
10. A large insurance company developed the forecast and actual ROI for a work-at-home program for two job groups.
11. A major hotel chain calculated the financial value and ROI of its coaching program.
12. An NGO has developed the impact and ROI for a new law to make domestic violence illegal in Kazakhstan.
13. A refugee services agency conducted ROI studies on two of its major programs: employment and vocation services.
14. The Singapore Defense Science and Technology Agency (DSTA) is measuring the ROI on team effectiveness.
15. The Danish Postal Service calculated the ROI for a project to improve employee engagement.
16. A large U.S. bank calculated the ROI for sponsoring a major sports event.
17. The World Food Programme (Rome, Italy) developed the ROI for a leadership development program for country directors.
18. A major U.S. defense department agency calculated the ROI for a master's degree offered to high-potential employees inside the agency.
19. The Association for Talent Development calculated the ROI for the annual conference, from the participant perspective and the exhibitor perspective.

20. The United Nations Security Department calculated the ROI for providing police training in Kuala Lumpur, Malaysia.
21. Novartis, a Swiss-based pharmaceutical, developed the ROI for a management development program.
22. A package delivery company developed the ROI for the replacement of keys with a fob in courier vehicles.
23. Laboratory Systems, a small 13-person company in Ireland, calculated the ROI for new product development.
24. Innova Energy developed the ROI for a stress reduction program.
25. A large Canadian bank calculated the ROI for networking among its senior leaders.
26. A large international consulting firm calculated the ROI for a social media system designed to manage the knowledge of their consultants.
27. The U.S. Air Force calculated the ROI for implementing new procedures to prevent an intrusion into a database.
28. The Institute for Clergy Excellence calculated the ROI in a program to address the burn out among clergy.
29. Sprint developed the ROI for a diversity program.
30. A large European software company calculated the ROI for a virtual business development conference for the sales team.

Questions for Discussion

1. What do you see in common with these examples?

2. What is driving this level of accountability for these programs?

A Basic Program Logic Model

Input/Resources

- Funds
- Facilities
- Faculty
- Coaches and participants

Activities

- Exercise
- Nutrition
- Stress Reducer
- Recruiting and retaining participants

Outputs

- Curriculum and staff
- Participant data
- Messages and media
- Coaching tools and logs

Short-Term Outcomes

- Increased knowledge
- Increased awareness

Intermediate-Term Outcomes

- Increased skill
- Increased adherence
- Increased motivation

Long-Term Outcomes

- More strength
- More endurance
- More nutrients
- Fewer calories
- More flexibility
- More relaxation
- Increased retention

Impact

- Improved health

What are your concerns about current models? ____

____

Problems and Opportunities with Current Measurement Systems

Topic	Problem or Issue	What Is Needed	ROI Methodology	Your System
Focus of use	Audit focus; punitive slant; surprise nature	Process improvement focus	This is the number one use for the ROI Methodology	
Standards	Few, if any, standards exist	Standards needed for consistency and credibility	Twelve standards accepted by users	
Types of data	Only one or two data types	Need a balanced set of data	Six types of data representing quantitative, qualitative, financial, and non-financial data	
Dynamic adjustments	Not dynamic; does not allow for adjustments early and often in the program cycle	A dynamic process with adjustments made early and often	Adjusts for improvement at four levels and at different timeframes	
Connectivity	Not respectful of the chain of value that must exist to achieve a positive impact	Data collected at each stage of the value chain	Every stage has data collection and a method to isolate the program's contribution to impact	
Approach	Activity based	Results based	Twelve steps are used to design for results	
Conservative nature	Analysis not very conservative	A conservative approach is needed for buy in	Very conservative: CFO and CEO friendly	
Simplicity	Not user friendly; too complex	User friendly, simple steps	Twelve logical steps	
Theoretical foundation	Not based on sound principles	Should be based on theoretical framework	Endorsed by hundreds of professors and researchers; grounded in research and practice	
Acceptance	Not adopted by many organizations	Should be used by many	More than 5,000 organizations using the ROI Methodology	

Six Categories of Data

Level	Measurement Focus	Typical Measures
0–Input	• Input into programs, including indicators representing scope, volumes, times, costs, and efficiencies	• Types of programs • Number of programs • Number of people involved • Hours of involvement • Costs
1–Reaction and Planned Action	• Reaction to the programs, including participants' perceived value and planned action to make them successful	• Relevance • Importance • Usefulness • Appropriateness • Intent to use • Motivational • Recommended to others
2–Learning	• Knowledge and success gained, learning how to develop concepts and how to use skills and competencies to drive program success	• Skills • Learning • Knowledge • Capacity • Competencies • Confidences • Contacts
3–Application and Implementation	• Application and use of knowledge, skills, and competencies, including progress made and implementation success	• Behaviors • Extent of use • Task completion • Frequency of use • Actions completed • Success with use • Barriers to use • Enablers to use • Engagement
4–Impact	• The impact of the programs and processes expressed as business impact measures	• Graduation rates • Infant mortality • Crime rates • Productivity • Revenue • Quality • Jobs created • Efficiency • Incidents of disease • Retention • Customer satisfaction
5–ROI	• Comparison of monetary benefits from the project to project costs	• Benefit Cost Ratio (BCR) • ROI (%) • Payback period

The Value Chain

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

Must take a step to Isolate the Effects

*Best Practice: Percent of Programs Evaluated at this level each year.

Matching Evaluation Levels with Objectives

Instructions: For each objective listed below, indicate the level of evaluation at which the objective is aimed.

- Level 1: Reaction
- Level 2: Learning
- Level 3: Application
- Level 4: Business Impact
- Level 5: Return on Investment

Objective	**Evaluation Level**
After completing this program or project, participants should:	
1. Decrease citizen complaints by 20% in one year.	____________
2. Use problem-solving skills to uncover causes of problems.	____________
3. Be able to demonstrate the five steps to determine if there is a food security issue.	____________
4. Rate the facilitator 4 out of 5 on presentation skills.	____________
5. Decrease the amount of time required to develop a proposal by 25%.	____________
6. Achieve a 20% ROI one year after program implementation.	____________
7. Perceive the content to be relevant to actual situations (4.5 out of 5).	____________
8. Decrease security breaches by 25% in six months.	____________
9. Conduct a proper investigation using the seven-step process in 95% of complaint situations.	____________
10. Score an average of 75 or better on new strategy quiz.	____________
11. Complete a conflict-of-interest questionnaire each year as part of the new ethics policy.	____________
12. Use all ten negotiation skills in at least 50% of negotiation situations.	____________

How do Level 3 and Level 4 objectives provide benefits? To whom?

____

____

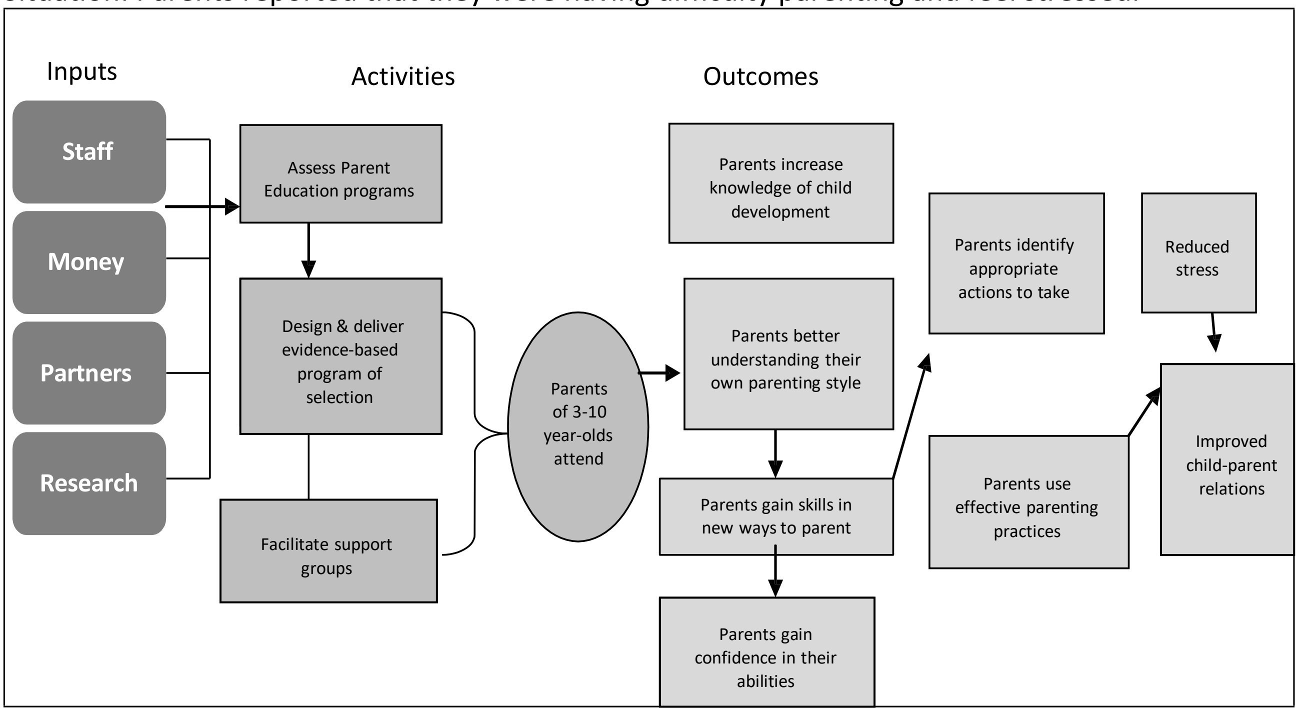
____

Comparison with Classic Logic Models

For the following two programs, identify the levels of evaluation in the ROI Methodology for the outcomes

Parent Education Program

Situation: Parents reported that they were having difficulty parenting and feel stressed.



- Input 0 ____
- Reaction 1 ____
- Learning 2 ____
- Application 3 ____
- Impact 4 ____
- ROI 5 ____

Design Thinking

Basic Principles

1. A problem-solving approach to handle problems on a systems level
2. A mind-set for curiosity and inquiry
3. A framework to balance needs and feasibility
4. A way to take on design challenges by applying empathy
5. A culture that fosters exploration and experimentation
6. A fixed process and a tool kit
7. A storytelling process to inspire senior executives
8. A new competitive logic of business strategy
9. A means to solve complex or wicked problems
10. A means to reduce risks

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

Questions for Discussion

1. Are these skills, processes, and approaches common?

2. Could these skills, processes, and approaches produce a more effective program?

3. Can you connect these to the results-based steps of program initiation, design, development, delivery, and evaluation?

Designing for Results

1. **Start with Why:** Align Programs with the Business
- Alignment is the key
- Is it a problem or opportunity?
- Need specific business measure(s)

Design Thinking Principle:
A problem solving approach to handle problems on a systems level

2. **Make it Feasible:** Select the Right Solution
- What are we doing (or not doing) that's influencing the impact measure?
- How can we achieve this performance?

Design Thinking Principle:
A mind-set for curiosity and inquiry

3. **Expect Success:** Design for Results
- Set objectives at multiple levels
- Define success
- Expand responsibilities

Design Thinking Principle:
A framework to balance needs and feasibility

4. **Make it Matter:** Design for Input, Reaction, and Learning
- Focus on the objectives
- Think about ROI
- Make it relevant
- Make it important
- Make it action-oriented

Design Thinking Principle:
A way to take on design challenges by applying empathy

5. **Make it Stick:** Design for Application and Impact
- Focus on objectives
- Ensure the application of the program
- Design application tools
- Collect data

Design Thinking Principle:
A culture that fosters exploration and experimentation

6. **Make it Credible:** Measure Results and Calculate ROI
- Isolate the effects of projects
- Convert data to money
- Tabulate Costs
- Calculate ROI

Design Thinking Principle:
A fixed process and a tool kit

7. **Tell the Story:** Communicate Results to Key Stakeholders
- Define audience
- Identify why they need it
- Select method
- Move quickly
- Consider one-page summary

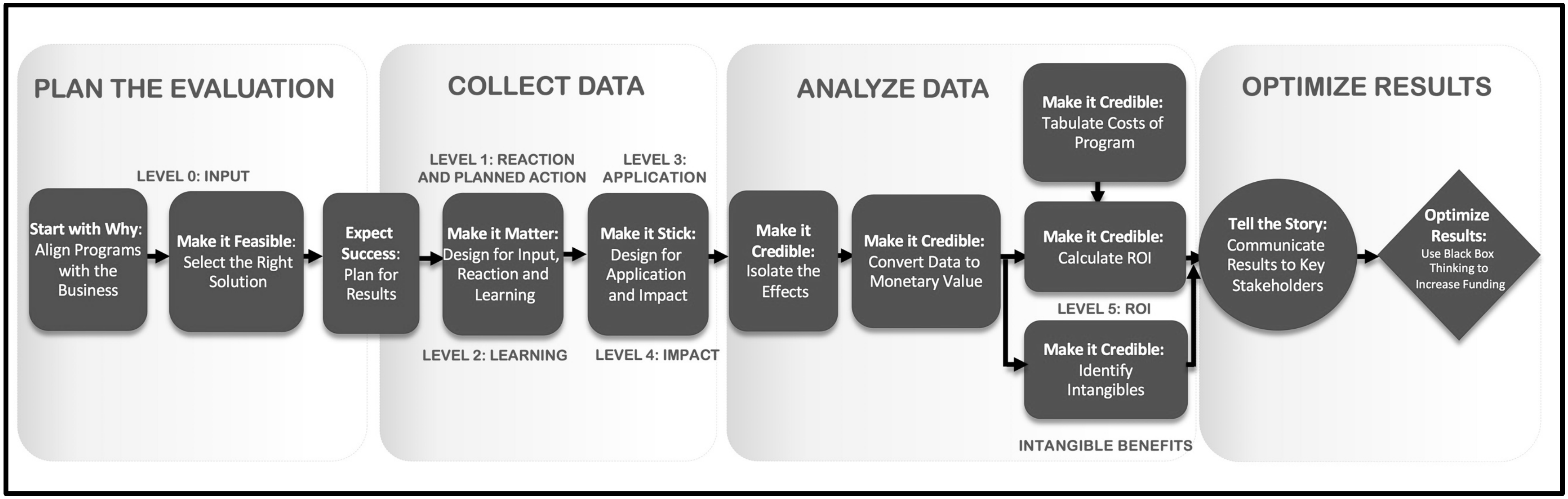
Design Thinking Principle:
A storytelling process to inspire senior executives

8. **Optimize Results:** Use Black Box Thinking to Increase Funding
- Measure
- Improve
- Fund

Design Thinking Principle:
A new competitive logic of business strategy

Taken from Phillips, Patti P. and Jack J. Phillips. (2017). *The Business Case for Learning: Using Design Thinking to Deliver Business Results and Increase the Investment in Talent Development.* West Chester, PA: HRDQ and ATD Press.

The ROI Methodology



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.

Benefits of This Approach

1. Align the Program with Business Measures
2. Validate the Value Proposition for the Program
3. Improve the Program
4. Enhance the Image of the Organization
5. Enhance Respect for the Organization
6. Improve Support for the Program
7. Justify or Enhance Budgets
8. Build Productive Partnerships

Notes:

Case Study: Retail Merchandise Company

The Situation

Retail Merchandise Company (RMC) is a national chain of 420 stores, located in most major USA markets. RMC sells small household items, gifts of all types, electronics, and jewelry, as well as personal accessories. It does not sell clothes or major appliances. The executives at RMC have been concerned about the slow sales growth and were experimenting with several programs to boost sales. One of the concerns focused on the interaction with customers. Sales associates were not actively involved in the sales process, usually waiting for a customer to make a purchasing decision and then proceed with processing the sale. Several store managers had analyzed the situation to determine if more communication with the customer would boost sales. The analysis revealed that the use of very simple techniques to probe and guide the customer to a purchase should boost sales in each store.

The senior executives asked the learning and development function to experiment with a very simple customer interactive skills program for a small group of sales associates. A program produced by an external supplier would be preferred to avoid the cost of development, particularly if the program proved to be ineffective. The specific charge from the management team was to implement the program in three stores, monitor the results, and make recommendations.

If the program increased sales and presented a significant payoff for RMC, it should be implemented in other stores. The sales associates are typical of the retail store employee profile. They are usually not college graduates, and most have a few months of retail store experience. Turnover is usually quite high and formal training has not been a major part of previous sales development efforts.

The Solution

The learning and development staff conducted a very brief initial needs assessment and identified five simple skills that would need to be covered in the program. From their analysis, it appeared that the sales associates did not have these skills or were very uncomfortable with the use of them. A program called “Interactive Selling Skills” was selected–a program with significant use of skill practices. The program had two days of training, where participants had an opportunity to practice each of the skills with a fellow classmate, followed by three weeks of on-the-job application. Then, a final day of training was conducted that included a discussion of problems, issues, barriers, and concerns about using the skills. Additional practice and fine-tuning of skills was part of that final session. The program, an existing product from an external training supplier, would be tried in the electronics area of three stores and sixteen people would be trained in each store. The program was actually taught by the staff of the training supplier for a predetermined facilitation fee.

Questions for Discussion

1. Which types of data does the senior management team desire?

2. How should data be collected for application and business impact measurement?

3. Which method should be utilized to isolate the effects of the program?

4. How should the business impact data be converted to monetary values?

Case Study: Mideast Pharma

At the end of a monthly staff meeting, Andy Rothschild, CEO of Mideast Pharma, asked Marsha Jennings, senior VP of HR, about the Women Leadership Coaching Initiative (WLCI). The pharmaceutical company was spending about $50,000 per participant to engage in a coaching process intended to position these female professionals for leadership positions within the organization. Given the long history of the organization and the strong, traditional culture, opportunities for women were lagging far behind benchmark organizations.

Marsha along with her director of diversity programs, Kelly Bishop, identified the six-month coaching initiative at a global conference on diversity and inclusion. Excited that the initiative was not the traditional face-to-face workshop, the two thought that the program would give women a fair shot at being promoted into manager slots.

To date, 15 high potential females had completed the program. Marsha and Kelly were about to launch the next cohort.

Andy, a firm believer in investing in people, but an executive who also believed in wise resource allocation, wanted to know the value the coaching program was bringing to Mideast Pharma.

Marsha: Well, Andy, the women love it. They meet three times during the six months to engage in dialogue about their experiences. Between meetings, they meet weekly with their coach to identify gaps and set direction.

Andy: What kind of results are we seeing?

Marsha: The women love it, and they recognize that this program is part of the organization's diversity initiative. They appreciate that the organization is starting to embrace a culture of diversity and is now offering opportunities for all employees to develop and move up in the company.

Andy: That's great. You know that I believe it is important to lift up all employees so that they have equal opportunity for success. But what value is the company getting from this program?

Marsha: Well, we know that one participant was actually promoted at the end of the coaching session. We also know that two others are interviewing for manager positions in the field.

Andy: Okay, thanks, Marsha. Why don't you stop by next week and let's talk further about this initiative and the others underway?

Questions for Discussion

1. You're Marsha. How did the conversation go?

___

___

2. You're Andy. How did the conversation go?

___

___

3. How would you measure value for this particular program?

___

___

Case Study: Pharma Services Company

The Program

A team-building program was conducted with eighteen team leaders in the operations areas of a pharmaceutical manufacturing and service company. For each team, a variety of quality, productivity, and efficiency measures were routinely tracked to reflect team performance. The program was designed to build five essential core skills needed to energize the team to improve team performance. Productivity, quality, and efficiency measures should improve with the application of team leadership skills. The program consisted of three days of classroom learning with some limited follow-up. Experiential exercises were used in most of the team building processes. The program manager was asked to report on the success of the program. The following options were available:

The Results (Option A)

1. Program feedback was very positive. Program participants rated the program 4.2 out of 5 in an overall assessment. Participants enjoyed the program and indicated that it was relevant to their jobs. Sixteen participants planned specific activities to focus on team building on the job.

The Results (Option B)

1. Program feedback was very positive. Program participants rated the program 4.2 out of 5 in an overall assessment. Participants enjoyed the program and indicated that it was relevant to their jobs. Sixteen participants planned specific activities to focus on team building on the job.
2. Participants learned new team leadership skills. An observation of skill practices verified that the team members acquired adequate skills in the five core team leadership skills. In a multiple choice, self-scoring test on team building and team motivation, a 48% improvement was realized when comparing pre- and post-scores.

The Results (Option C)

1. Program feedback was very positive. Program participants rated the program 4.2 out of 5 in an overall assessment. Participants enjoyed the program and indicated that it was relevant to their jobs. Sixteen participants planned specific activities to focus on team building on the job.
2. Participants learned new team leadership skills. An observation of skill practices verified that the team members acquired adequate skills in the five core team leadership skills. In a multiple choice, self-scoring test on team building and team motivation, a 48% improvement was realized when comparing pre- and post- scores.
3. Participants applied the skills on the job. On a follow-up questionnaire, team leaders reported high levels of use of the five core team leadership skills learned from the program. In addition, participants identified several barriers to the transfer of skills into actual job performance.

The Results (Option D)

1. Program feedback was very positive. Program participants rated the program 4.2 out of 5 in an overall assessment. Participants enjoyed the program and indicated that it was relevant to their jobs. Sixteen participants planned specific activities to focus on team-building on the job.
2. Participants learned new team leadership skills. An observation of skill practices verified that the team members acquired adequate skills in the five core team leadership skills. In a multiple choice, self-scoring test on team-building and team motivation, a 48% improvement was realized when comparing pre and post scores.
3. Participants applied the skills on the job. On a follow-up questionnaire, team leaders reported high levels of use of the five core team leadership skills learned from the program.

In addition, participants identified several barriers to the transfer of skills into actual job performance.

4. Performance records from teams units reflect the following improvements in the sixth month following completion of the program: productivity has improved 23%, combined quality measures have improved 18%, and efficiency has improved 14.5%. While other factors have influenced these measures, the program designers feel that the team-building program had an important impact on these business measures. The specific amount cannot be determined.

The Results (Option E)

1. Program feedback was very positive. Program participants rated the program 4.2 out of 5 in an overall assessment. Participants enjoyed the program and indicated that it was relevant to their jobs. Sixteen participants planned specific activities to focus on team building on the job.
2. Participants learned new team leadership skills. An observation of skill practices verified that the team members acquired adequate skills in the five core team leadership skills. In a multiple choice, self-scoring test on team-building and team motivation, a 48% improvement was realized when comparing pre and post scores.
3. Participants applied the skills on the job. On a follow-up questionnaire, team leaders reported high levels of use of the five core team leadership skills learned from the program. In addition, participants identified several barriers to the transfer of skills into actual job performance.
4. Performance records from team units reflect the following improvements in the six months following completion of the program: productivity has improved 23%, combined quality measures have improved 18%, and efficiency has improved 14.5%.

Several other factors were identified which influenced the business impact measures. Two other initiatives helped improve quality. Three other factors helped to enhance productivity and one other factor improved efficiency. Team leaders allocated the percentage of improvement to each of the factors including the team-building program. To accomplish this, team leaders were asked to consider the connection between the various influences and the resulting performance of their teams and indicate the relative contribution of each of the factors. The values for the contribution of the team-building program are presented below. Because this is an estimate, a confidence value was placed on each factor with 100% representing certainty and 0% representing no confidence. The confidence percentage is used to adjust the estimate. This approach adjusts for the error of the uncertainty of this estimated value. The adjustments are show below:

	Monthly Improvement in Six (6) Months	Percent Contribution from Team Building B	Average Confidence Estimate (Percent) C	Adjusted Improvement in Six (6) Months A x B x C
Productivity	23%	57%	86%	11.3%
Quality	18%	38%	74%	5%

Efficiencies	14.5%	64%	91%	8.4%

The Results (Option F)
The data in Option E are the developed plus costs and values. Recognizing that the cost of program might exceed the benefits, the program manager developed the fully loaded cost for the team-building program and compared it directly with the monetary benefits. This required converting the productivity, quality, and efficiency measures to monetary amounts using standard values available in the work units. The benefits are compared directly to the program costs using an ROI formula.

Calculations are as follows:

Program costs for 18 participants = $54,300

Annualized, First Year Benefits

Productivity	197,000
Quality	121,500
Efficiency	90,000
	408,500

$$\text{ROI} = \frac{408{,}500 - 54{,}300}{54{,}300} \times 100 = 652\%$$

Questions for Discussion

1. Match the options with levels of evaluation.

   A. ________________ B. ________________ C. ________________

   D. ________________ E. ________________ F. ________________

2. Discuss the relative value added as each level of evaluation information is developed.

   ____

   ____

3. Which of the options for reporting results would be appropriate for the senior management group?

   ____

   ____

4. Which reports would be appropriate for the program designers and facilitators?

   ____

   ____

5. Which reports would be appropriate for the participants in the program?

6. What are the benefits of developing data at all five levels?

7. Why aren't more ROI evaluations conducted?

8. Which methods are used to collect post-program data?

9. Which method is used to isolate the effects of the program?

10. Which method is used to convert data to monetary value?

Notes:

STEP 1

Start with Why: Align Programs with the Business

Scotland Yard

For the supporters of soft skills, the headline on the front page of *The Sunday Telegraph* was a nightmare. "Scotland Yard 'wasting' £10M on Leadership Training" was the headline for a major story about this hidden expenditure.[1] Despite a requirement for the Mayor's Office for Policing and Crime to publish all expenditures exceeding £500, the details of Scotland Yard's £10 million outlay have been kept secret until now.

The Concern

The Metropolitan Police has been accused by its officers of "wasting" £10 million on a leadership training program as the crime rate soars. More than 10,000 officers and staff at the rank of sergeant and above will attend five days' worth of training courses before the end of the year. A spokesman said that the course costs £5 million a year over two years.

Officers who recently completed the course are understood to have confronted bosses at the end, questioning why the money could not have been used to recruit new police officers, provide police cars, or enhance operational training. The £10 million budget would be enough to fund roughly 1,000 police cars, at a time when the fleet is being reduced to save money, or the yearly salary of more than 400 police officers.

The course – for which staff will be taken off duty for a total of more than 50,000 days – comes amid soaring crime levels in the capital including more than 60 murders this year, with the monthly homicide rate overtaking that of New York. It also comes at a time when the *Sunday Times* reported in a front-page story, "Under 5% of all burglaries and robberies solved: New shocking figures reveal failure of police."[2]

The Program

The program is a classic blend of soft skills tools, including, "50,000 hours of one-to-one coaching; five days of full workshops per person; two 360-degree feedback processes per person and one clarity 4D personality profile per person." The profile test, at a cost of £17 per person, tells someone whether they are a "blue", "red", "yellow" or "green" personality. "Yellows", for example, discover that they are "talkative, expressive, light-hearted, sociable, flamboyant and enthusiastic."

At the end of the course, they were asked to come up with personal "pledges", such as to do more exercise.

The training days are being run by Lane4, a management consultancy company founded by the former British swimmer Adrian Moorhouse, an Olympic gold medalist. The company said that their leadership program will help people with "self-development (their identity, self-reflection, their behaviours, their impact on others)" as well as "creating meaning through shared identity."

The Reaction

A source who attended the course told *The Sunday Telegraph*: "Everyone was angry as they felt it was a waste of money and it took us out of borough at a time when we have so much work to do."

Ken Marsh, the Metropolitan Police Federation chairman, said that all officers wanted was to get on with their jobs. He said: "We are on our knees. Crime is going up, and that is serious crime going up as well, the public are concerned, and we haven't got the resources that we need."

A Met spokesman said: "As London's single biggest employer we absolutely must support our leaders by giving them the skills they need to do their jobs. Well-led and well-trained people deliver better, and ultimately that means Londoners get a great service."

The Met's summary of the program said it is designed "as a lever to drive positive behaviours and to empower our staff to communicate and engage more effectively."

Scotland Yard said it was "confident this investment is worthwhile" and it had received positive feedback from many attendees.

A spokesman for the Mayor of London said: "As outlined in the Mayor's Police and Crime Plan, the Met's most valuable asset is its people and so it is important that staff have the right training and support to lead the organization."

[1] H. Dixon. "Scotland Yard 'wasting' £10M on leadership training." *The Sunday Telegraph*. June 3, 2018. 1 -2.
[2] J. Ungoed-Thomas, K. Shveda, S. Joiner, and D. Collins. "Under 5% of all burglaries and robberies solved." *Sunday Times*. June 17, 2018. 1.

Questions for Discussion

1. Is this a typical situation?

____

____

2. What went wrong with this program?

____

____

3. Is the leadership development provider partially responsible? Explain.

____

____

4. What should have been the approach?

____

____

This is Much Better: Kansas City Police

In Kansas City, Missouri, the 1910 Squad SWAT team had a reputation for having the most complaints of any unit. They were a very tough group aimed at arresting the criminal using whatever means necessary. Along the way, they left families, friends, and others upset to the point where they were complaining about excessive force. About three complaints per month were reported, and each complaint cost the city about $70,000. The chief of police determined this had to be fixed.[1]

Chip Huth was put in charge of the group to change their approach. Chip had been introduced to a leadership concept from the Arbinger Institute. The concept's approach was about transforming an inward mindset to an outward mindset. The team began to realize that their focus had been entirely inward, focusing on meeting their goals, and in these situations, they perceived people and pets involved as objects instead of human beings and pets who are loved by family members. Team members began to see this shift in mindset as:

- Necessary to instill the type of culture where each person felt supported and had an opportunity to make meaningful contribution.
- Important to develop the capacity to conduct dangerous and kinetic police work safely, while instilling community trust.
- Feasible and practical to instill mindset shift into all aspects of dynamic police work.

The design was to SEE and RESPOND to people as people. The design was to develop and implement an outward mindset toward fellow team members, people from other department elements, people from teams on other agencies, the people in the house where the warrant is served, the neighbors around the house, etc.

When they changed their thinking and subsequent approach, there was a dramatic difference. The complaints reduced from three per month to zero, and this result has continued for several years. The outward mindset training program yielded a very high ROI calculation of more than 2,000%, a low-cost program solving an expensive problem.

Contrast the difference between these two police examples. In Scotland Yard, the definition of success at the end of the program was behavior. In Kansas City, it was impact because the program began with the end in mind with the business impact measure of citizen complaints. This concept is simple, yet powerful. You start where you want to finish. Success does not occur until impact is achieved.

[1] The Arbinger Institute. *The Outward Mindset: How to Change Lives and Transform Organizations, Second Edition*. Oakland, CA: Berrett Koehler Publishers, 2019.

Questions for Discussion

1. Is it possible to "start with why" (the business measure) with every project? Explain.

____

____

2. What are the business measures for your project?

____

____

Notes:

Who Could Resist These Programs?

- Providing support for abused women
- Managing a global team
- Keeping families together
- Leading confidently
- Improving female empowerment
- Influencing others when you're not in charge
- Communicating effectively in a digital workplace
- Preventing infectious diseases
- Gaining respect for police officers
- Fostering employee engagement
- Improving healthcare delivery or
- Providing financial planning for low-income families

Can you add to the list?

____

____

What type of analysis is usually conducted to establish need?

____

____

Are the business measures clear?

____

____

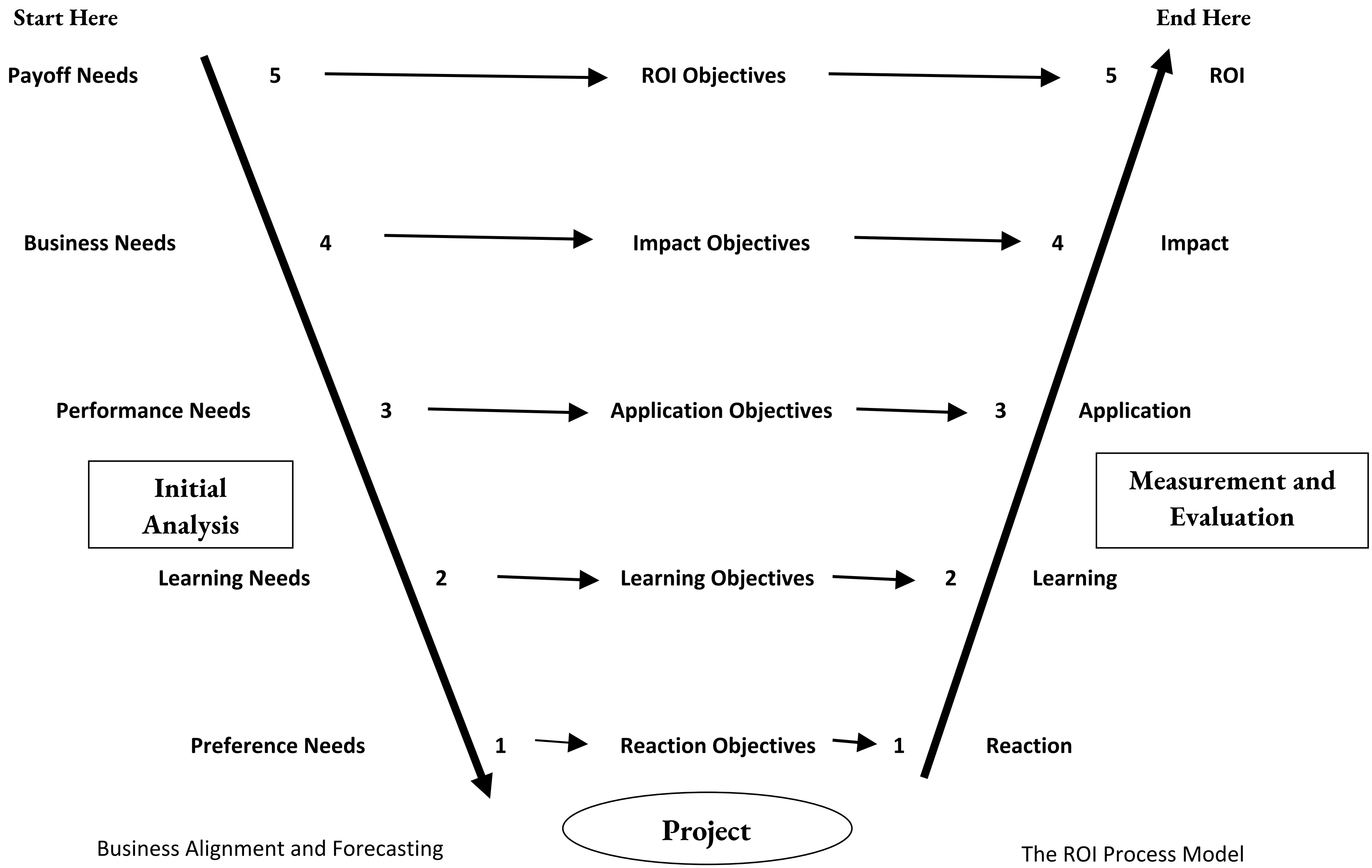
Payoff Need

- Is this program worth doing?
- Is this a problem or issue worth addressing?
- Is this an opportunity worth pursuing?

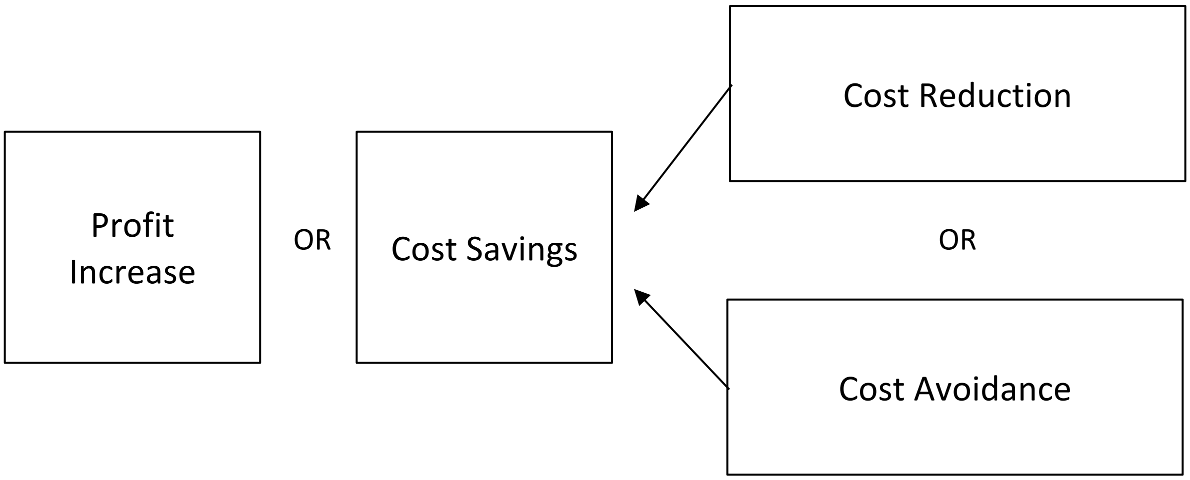
The Response:

- It could be obvious.
- It could require some discussion.
- It could require a simple analysis.
- It could require a detailed forecast.

Program Alignment
V Model



Payoff Opportunity



Key Questions to Ask

- Why is this an issue?
- What happens if we do nothing?
- Is this issue critical?
- Is this issue linked to our strategy?
- Is it possible to correct it?
- Is it feasible to improve it?
- How much is it costing?
- Who is paying for this?
- Can we find a solution?
- Are there multiple solutions?
- Who will support the program?
- Who will not support the program?
- How much will the solution(s) cost?
- How can we fund the program?
- Are there some important intangible benefits involved?
- Is there a potential payoff (positive ROI)?
- Do we need to forecast outcomes, including ROI?

Can you add to the list?

Obvious Payoff Opportunities

- The annual cost to the city for each homeless person is $52,000.
- The time to process a disability claim has increased 30 percent in two years.
- Sexual harassment complaints per 1,000 employees are the highest in the industry.
- The average cost of an opioid addict is $45,000.
- System downtime is double last year's performance.
- Excessive turnover of critical talent: 35 percent above benchmark data.
- The student debt load is $125,000 for each graduate.
- Very low market share in a market with few players.
- Inadequate customer service: 3.89 on a 10-point customer satisfaction scale.
- Safety record is among the worst in the industry.
- Hospital readmission rate is 35 percent, seven times the national average.
- This year's out-of-compliance fines total $1.2 million, up 82 percent from last year.
- The unemployment rate for veterans is three times the total unemployment rate.
- Excessive product returns: 30 percent higher than previous year.
- Excessive absenteeism in call centers: 12.3 percent vs. 5.4 percent for industry.
- More than 35 percent of the population is below the poverty income level.
- Grievances from prison guards are up 38 percent from last year.

From your experience, what other programs could be added to this list?

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____

____

Are the business impacts clear? Explain.

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How Are Your Programs Initiated?

Reasons for Programs	Current %
• An analysis indicates a need exists.	
• A regulation requires it.	
• It appears to be a serious problem.	
• Management or a community leader requests it.	
• A donor wants the program.	
• It is a change that is needed.	
• Other organizations have implemented it.	
• The topic is a fad.	
• It supports new policies and practices.	
• Staff members thought it was needed.	
• It supports new equipment, procedures, or technology.	
• It supports other processes.	
• A trendy book has been written about it.	
• Other ____	
	100%

Which reasons are a concern in terms of the potential payoff and business need?

____

____

What Happens if We Do Nothing?

- Will the situation deteriorate?
- Will operational problems surface?
- Will budgets be affected?
- Will we lose influence or support?
- Will we miss the opportunity?

____

____

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Examples of Hard Data

OUTPUT	**TIME**
Citizens Vaccinated	Length of Stay
Graduation Rate	Cycle Time
Placement Rate	Equipment Downtime
Units Produced	Overtime
Income Increased	On-Time Shipments
Items Assembled	Project Time
Money Collected	Processing Time
Licenses Issued	Supervisory Time
New Accounts Generated	Time to Proficiency
Forms Processed	Time to Graduate
Loans Approved	Meeting Schedules
Inventory Turnover	Repair Time
Criminals Prosecuted	Time to Replace
Inspections Made	Work Stoppages
Applications Processed	Response Time
Patients X-rayed	Late Times
Students Graduated	Lost Time Days
Permits Issued	Wait Time
Projects Completed	
Jobs Secured	**QUALITY**
Productivity	Readmissions
Patients Discharged	Failure Rates
Criminals Captured	Dropout Rates
Shipments	Scrap
	Waste
COSTS	Rejects
Budget Variances	Error Rates
Unit Costs	Rework Required
Costs by Account	Complications
Variable Costs	Shortages
Fixed Costs	Product Defects
Overhead Cost	Deviations from Standard
Operating Costs	Product Failures
Program Cost Savings	Inventory Adjustments
Accident Costs	Infections
Program Costs	Incidents
Incarceration Costs	Compliance Discrepancies
Shelter Costs	Agency Fines
Treatment Costs	Accidents
Participant Costs	Crime Rate
Cost Per Day	

Can you add to the list?

Examples of Soft Data

LEADERSHIP Teamwork Collaborations Networking Communication Alliances Decisiveness Caring Compassion **WORK CLIMATE/SATISFACTION** Grievances Discrimination Charges Employee Complaints Job Satisfaction Organization Commitment Employee Engagement Employee Loyalty Intent to Leave Stress **INITIATIVE/INNOVATION** Creativity New Ideas Suggestions Trademarks Copyrights and Patents Process Improvements Partnerships	**CLIENT SERVICE** Client Complaints Client Satisfaction Client Dissatisfaction Client Impressions Client Loyalty Client Retention Client Value Clients Lost **EMPLOYEE DEVELOPMENT/ ADVANCEMENT** Promotions Capability Intellectual Capital Programs Completed Transfers Performance Appraisal Ratings Readiness Development Assignments **IMAGE/REPUTATION** Brand Awareness Reputation Impressions Social Responsibility Environmental Friendliness Social Consciousness Diversity/Inclusiveness External Awards

Can you add to the list?

Finding the Right Solution

1. Examine the data and records.

____

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2. Initiate the discussion.

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3. Reference a case study.

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____

4. Use benchmarking from similar solutions.

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5. Use evaluation as the hook.

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6. Involve others in the discussion.

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7. Discuss disasters in other places.

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____

STEP 2

Make it Feasible: Select the Right Solution

Millennial Turnover at the Dealership

Auto dealers are facing a problem: attracting talent in their 20s and 30s to work and stay in an auto retail business, which is often defined by long shifts on the selling floor, weekend hours, haggling with customers, and pay based on commission.

Nearly 60 percent of dealership new hires are millennial workers, and more than half of those new hires turn over annually, according to a study by Hireology, a talent and management firm.[1] Millennials are especially averse to working in dealerships because they carry more debt than other generations and are looking for stable pay; however most dealerships pay only on commission, Hireology said.

Many millennials feel auto dealers have an outdated approach to selling that doesn't fit their values, even when the jobs have good earning potential. Young sales team members are not interested in aggressive negotiating with customers and are opposed to, what some would call the "old boys club," which can still be found at many dealerships.

Consumers are now better informed and approach dealerships armed with pricing information pulled from the internet. This is causing the sales team additional difficulty with obtaining the upper hand in negotiating a car's final price as well as shrinking profits on new-car sales in recent years. Along with it, the potential commission for the sales staff is dwindling.

Approximately 17,000 new-car dealerships in the U.S. directly employed 1.1 million people last year, according to the National Automobile Dealers Association. Dealers are struggling with high employee turnover, with rates steadily increasing over the last five years even though auto sales have been strong. The low unemployment rate has contributed to staffing difficulties as well. This problem is likely to worsen as generations younger than millennials join the workforce. Some millennials also say they are at odds with the perception of a pushy, smooth-talking, car salesperson trying to trick buyers into paying more for a vehicle.

Nissan Motor Company reports that at some dealerships, the turnover for sales staff has reached 100% in the last year. This indicates some sales positions are turning over more than once a year, and this is quite costly for dealers in both time and money.

This can be frustrating for consumers too. Vehicles are now technologically advanced, requiring sales staff to be more knowledgeable about features and improvements. Instead, potential buyers are now challenged with sales staff who may know less about a vehicle's features and technology than they do. Unfortunately for consumers, who are doing their research and shopping online, state laws still require that most vehicle purchases be made in-person at dealerships.

1. A. Roberts. "Car Dealers Labor to Keep Young Workers." *The Wall Street Journal.* August 24, 2018. B1, B2.

In this situation, this is a problem that needs to be solved, prompting several questions:

1. What is the precise business need?

____

____

2. For a particular dealership, area, or company, how could you determine the precise cause of turnover?

____

____

3. What potential solutions might be feasible?

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____

4. Could an ROI forecast be possible?

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5. To solve the problem for a particular dealership, area, or company, how could a SMART Impact objective be developed?

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Diagnostic Tools

- 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
- Statistical process control

Do you have other tools?

Learning Needs

Subject-Matter Experts (SMEs)

Job and Task Analysis

Observations

Demonstrations

Tests

Management Assessment

Preference Needs

This solution should be:

- Relevant to my work
- Relevant to the community
- Important to my success
- Important to the program
- Valuable to me
- Valuable to society
- Action oriented
- Necessary for our solution
- Easy to use
- Convenient for me
- New to me
- A good investment of funds
- Implemented without disruption of work
- Seamless with our systems
- Something that I will recommend to others
- Something I will use

Matching Solutions to Needs

Some solutions are obvious.

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Solutions can come in different sizes.

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Some solutions take a long time.

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Solutions should be tackled with the highest priority items first.

____

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____

Needs	Program Alignment V Model	Evaluation
Start Here		**End Here**
Payoff Needs 5 It is taking too long to complete the projects, creating delays, bottlenecks and problems.	**ROI Objectives** 20%	5 **ROI** ROI is calculated with cost versus benefit.
Specific Business Needs 4 The time to complete projects has been excessive, averaging 10 days and increasing. The penalties for delays have increased to an average of $10,000 per project.	**Impact Objectives** Reduce the time to complete projects by at least 50% in six months. Reduce the penalties for delayed projects by at least 50% in six months.	4 **Impact** Excessive time project records are monitored, and project penalties are monitored.
Performance Needs 3 Project team members are not using the designated project management software tool (Microsoft Project).	**Application Objectives** Project team members will be using Microsoft Project on every project within two weeks of the program.	3 **Application** Self-assessment questionnaire and input from centralized software system.
Learning Needs 2 Project team members have inadequate skills on the use of Microsoft Project software.	**Learning Objectives** Participant will demonstrate use of 75% of the critical routines in a classroom setting.	2 **Learning** Software demonstrations observed by the facilitator
Initial Analysis		**Measurement and Evaluation**
Preference Needs 1 Project team members must see this program as necessary, relevant to their needs, and important to the success of their projects.	**Reaction Objectives** Participants would rate this program as: • 4 out of 5 in relevance to current needs • Necessary for success • Important to the success of project.	1 **Reaction** Feedback at the end of the session using a standard questionnaire.
Business Alignment and Forecasting	Project	**The ROI Process Model**

Pharmaceutical Manufacturer Supplying Cancer Fighting Drugs

-Sample-

Level	Needs	Objectives	Evaluation	Level
5	• $1.6 million costs due to falsely • rejected syringes	• 25% ROI	• Program costs compared to monetary benefits of program • Monetary benefit determined by costs savings of reduced number of false rejects	**5**
4	• False rejects are the problem; false rejects are defined as syringes rejected when they are actually usable.	• Reduce the number of false rejects by 10% within six months	• Monitor false rejects for six months • Participant estimates used for isolation	**4**
3	• Inspectors are incorrectly identifying syringes as unacceptable	• Follow the five-step process during 100% of inspections • Utilize job aid as needed • Identify barriers to following the five-step process	• Follow-up questionnaire to participants to check frequency of skill application and barriers three months after the training. • Unscheduled audits over six months	**3**
2	• Deficiency in skills to recognize unacceptable syringes	• Understand five-step process and job aid • Know the difference between acceptable and unacceptable syringes • Understand consequences of incorrectly categorizing syringes	• Demonstrate ability to identify acceptable and unacceptable syringes • Indicate knowledge and understanding by completing learning assessment	**2**

1	• One-day workshop and introduction to new job aid	• Program receives favorable rating of 4 out of 5 on:
		  ○ Relevance of workshop content and job aid
		  ○ Importance of following the five-step inspection process
		  ○ Intent to use job aid during inspections
		  ○ Other measures important to design and delivery of content
			• Reaction questionnaire administered at the end of the workshop	**1**

Create a Green Organization

OPCW

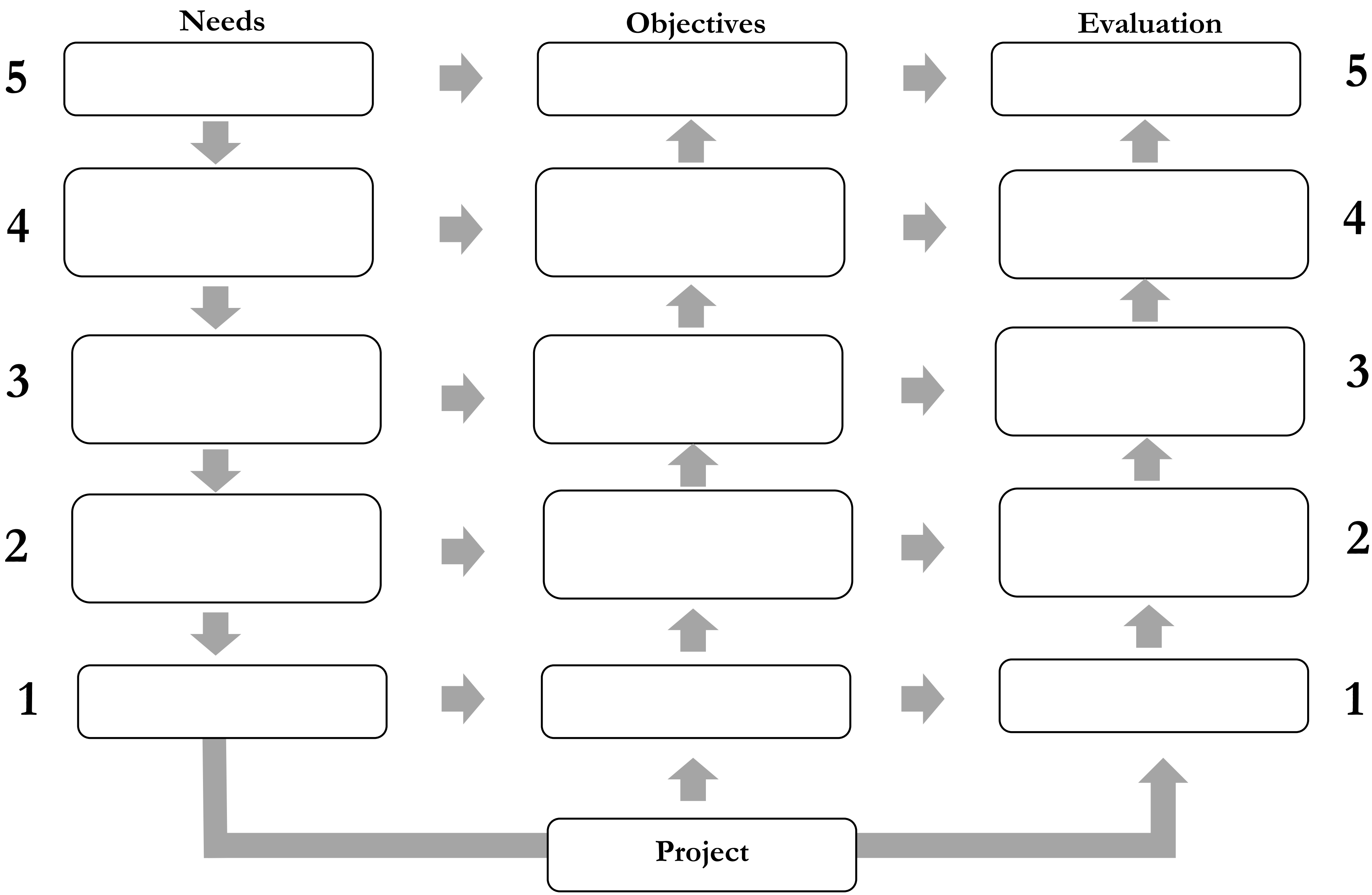
-Sample-

Level	Needs	Objectives	Evaluation	Level
5	• Help protect the environment • Save costs	• ROI target of 10%	• Project benefits compared to costs	**5**
4	• Reduce carbon emissions • High energy costs • Rising costs of operations	• Reduce carbon emission by ___ • Reduce energy costs by ___ • Reduce materials/supplies by ____	• Organization records	**4**
3	• Not recycling materials • Need to change consumption habits • Need to use less materials and supplies • Not making environmentally friendly choices	• Six months after the project begins, employees will: ○ Recycle in eight categories ○ Alter consumption patterns ○ Reduce usage, conserve ○ Use environmentally friendly supplies	• Self-assessment questionnaire • Recycle records • Records of purchasing eco-friendly products	**3**
2	• How actions effect the environment • Specific green methods • Environmental issues	• All employees will learn: ○ Environmental issues ○ Specific green actions they can take ○ How to make eco-friendly choices	• Self-assessment questionnaire • Environment Quiz	**2**
1	• Employees must see project as necessary, important, relevant feasible	• Program receives favorable rating of 4 out of 5 on: ○ Necessary to OPCW ○ Relevance to OPCW ○ Importance of adhering concepts in support of public good	• Reaction questionnaire administered to all project participants	**1**

Effective Meetings Program

-Sample-

Level	Needs	Objectives	Evaluation	Level
5	• Thousands each month due to excessive, unproductive meetings. Estimated $15,000 per month.	• 25% ROI	• Program costs including program fee, travel, lodging, meals, facilities, participant time, evaluation costs = $123,008 • Monetary benefit determined by time savings from reduction in number of people in meetings, number of meetings, and length of meetings. Time value based on average salary and benefits of time of those in meetings = $815,327.65	**5**
4	• Team spends too much time in meetings. Too many people, too much time, too many meetings.	• Three months after the program, there will be a reduction in cost due to time in meetings as measured by: ○ Reduced number of meetings. ○ Reduced number of people in meetings ○ Reduced length of meetings	• Time in meetings, number of meetings, and number of people in meetings captured by meeting leaders who attended the training. A meeting profile was developed by participants during the workshop and then again three months post-training. • Isolating technique is estimation due to the fact that control groups were not feasible, and time and number of meetings had not been tracked historically. An 81% confidence factor was used to adjust for error of the estimation. This is based on respondent average.	**4**
3	• Managers and supervisor are not managing their meetings. Too many people attend meetings; no agenda; no follow-up; no structure; no discussion management	• Upon returning to the job, participants will: ○ Develop a detailed agenda outlining the specific topics to be covered for 100% of meetings. ○ Establish meeting ground rules at the beginning of 100% of meetings. ○ Follow up on meeting action items within three days following 100% of meetings.	• Follow-up questionnaire administered to participants three months after the program to determine achievement with objectives.	**3**
2	• Managers and supervisor need to develop meeting management skills; learning is important but doing (Level 3) is more important.	• During the workshop, participants will demonstrate their ability to: ○ Develop a meeting profile ○ Develop a meeting agenda ○ Select the appropriate participants ○ Manage discussions ○ Handle conflict ○ Manage follow-up activities	• Facilitator assessment of meeting profile • Written test • Skill practice observation	**2**
1	• Two-day workshop • Relevant content	• Program receives favorable rating of 4 out of 5 from 80% of participants on: ○ Content relevance to the job ○ Intent to apply content immediately upon return to job ○ Other measures important to design and delivery of content	• Reaction questionnaire administered at the end of the workshop	**1**


Needs
Objectives
Evaluation
5
4
3
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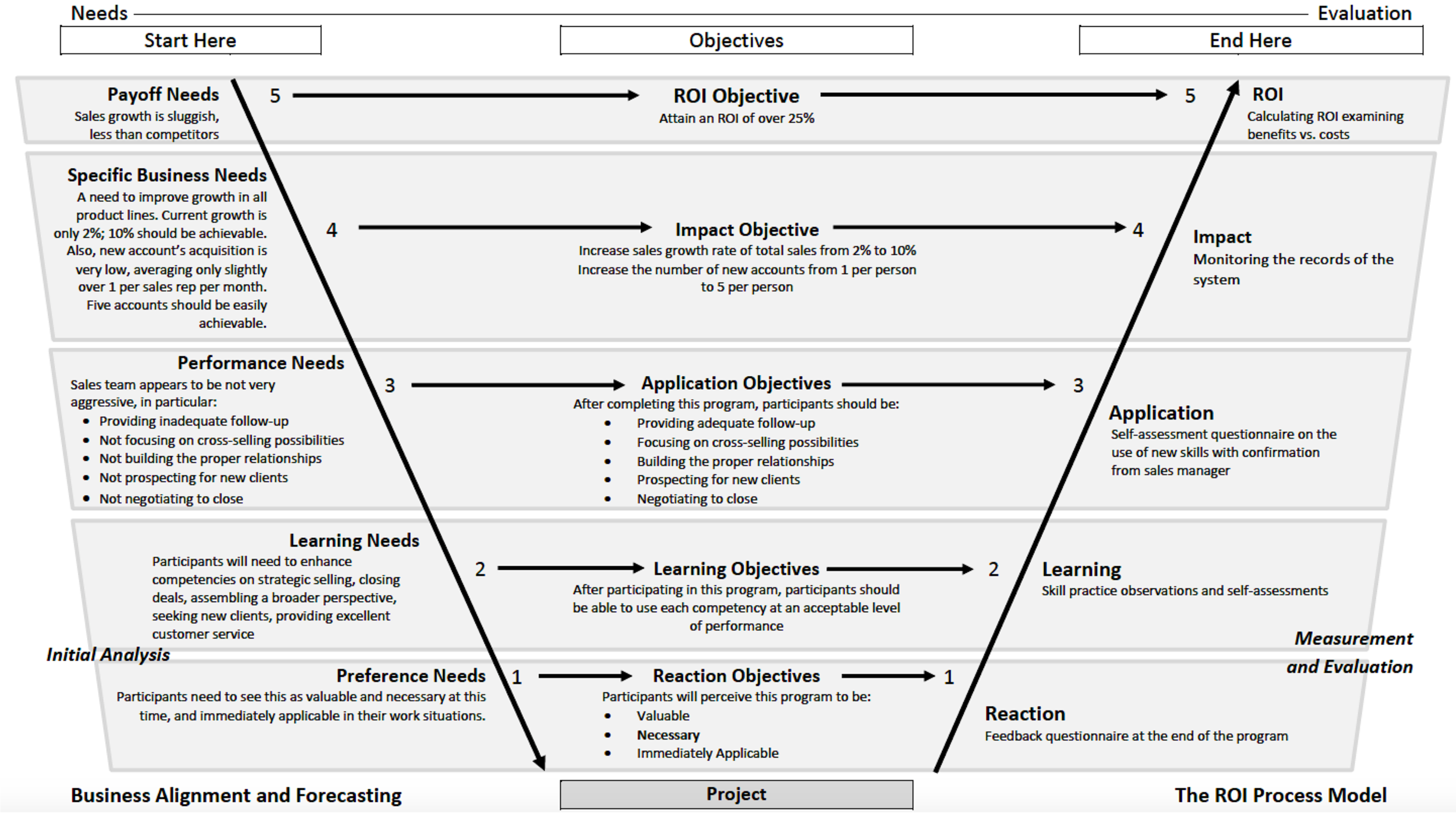
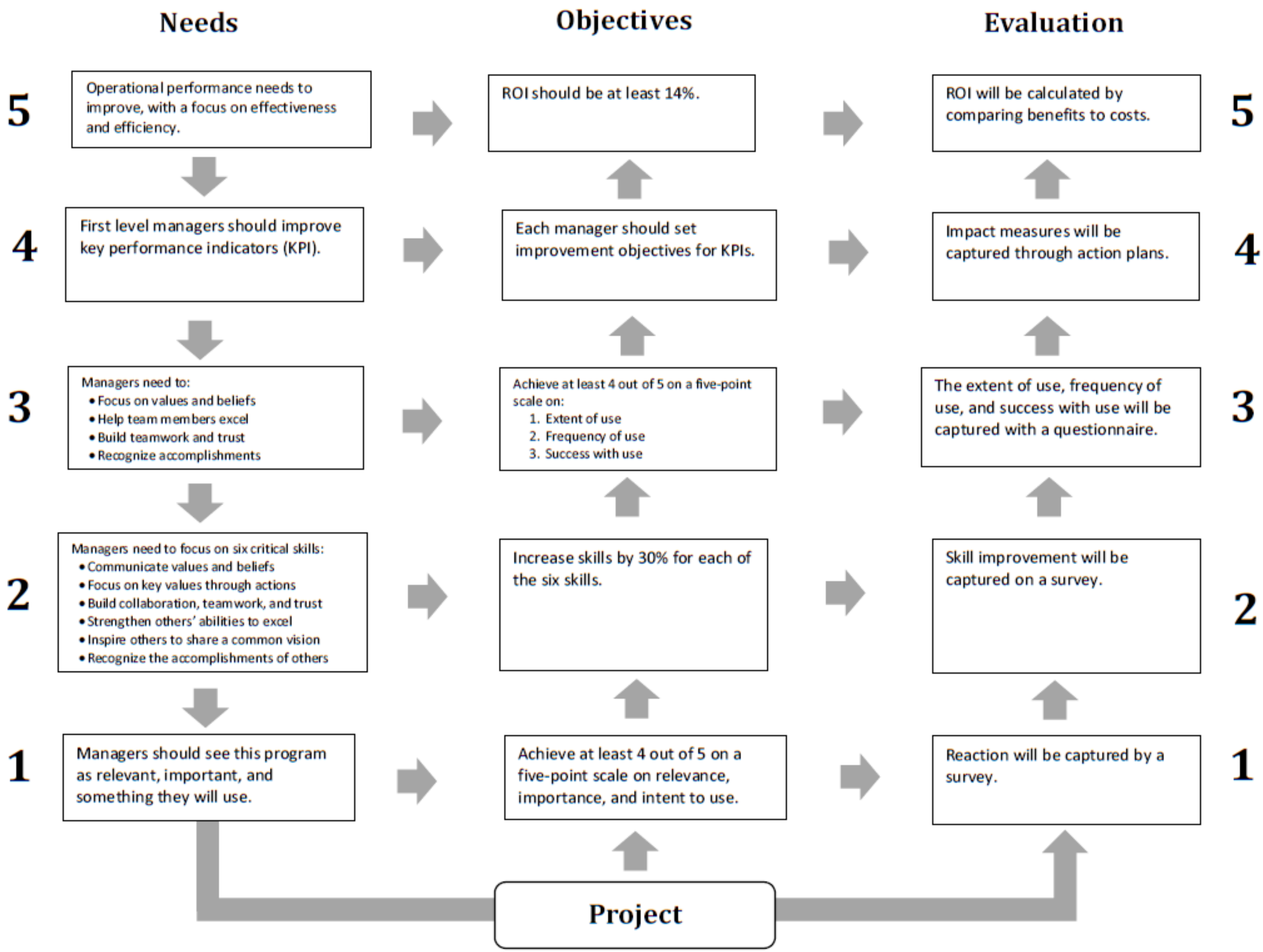
Project

Selling Skills
V Model



Alignment for a Leadership Development Program



Exercise: Aligning Needs and Program Objectives

With members at your table, identify a program or initiative that you would like to evaluate at levels 4 and 5. Using the worksheet below, complete the following steps:

1. Clarify the needs for the program by beginning with the potential payoff (or the ultimate goals). Then working through the alignment process, address the needs at the lower levels. If you are not clear about the specifics at each level, make assumptions based on what you know.

   Be sure to identify the stakeholders involved in the program so you can position the program for success.

2. For each level of need, identify the specifics that reflect those needs. Write at least one objective for each need.

3. Identify a spokesperson who will report the results of your exercise.

Level of Need	Need	Objective
Payoff Need		
Business Need		
Performance Need		
Learning Needs		
Preference Need		

Work at Home Program

Level	Needs Assessment	Program Objectives	Evaluation	Level
5	• Having employees travel long distances is causing serious costs to the company and damage to the environment.	• ROI of 25%.	• Calculate the ROI.	5
4	• Average commuting time for staff is 1 hour and 44 minutes. • Office expenses are high and increasing. Cost per office space is very high; average of $17,000 per employee. • Turnover is high, averaging 22.3%; benchmark data suggest that it should be about 12%. • Productivity needs to improve; the current level has been unchanged in two years. • Absenteeism is excessive at 7%; benchmark data is at 4%. • Stress is high.	• Commuting time is reduced to an average of 15 minutes a day. • Office expense is reduced by 20%. • Turnover is reduced to 12%. • Productivity is improved by 5%. • Absenteeism is reduced. • Stress is reduced. • Carbon emissions are reduced. • The company's image as a green company is enhanced. • Employee engagement improves.	• Commute time, office expense, productivity, turnover, and absenteeism are monitored in six months. • Questionnaires are administered.	4
3	• Employees will attend briefing session and volunteer to work at home. • Employees must be productive in the home environment, making it free from distractions. • Managers must manage effectively from remote location.	• Managers should conduct a meeting. • At least 30% of employees in the claims processing area will work at home. • Procedures and policies are implemented. • Offices at home are built and properly equipped. • Managers will follow procedures to make sure the process works.	• Follow-up questionnaire to employees and managers at three months.	3

Work at Home Program

	• Work-at-home policies will be administered properly.	• Managers should manage the remote employees effectively.		

Level	Needs Assessment	Program Objectives	Evaluation	Level
2	• Employees need to understand the reality of working at home, the conditions, roles, and regulations. • Employees must have the discipline and the tenacity to work at home. • Managers must understand how this can work. • Managers must know how to manage remotely.	• Employees must have the discipline and tenacity to work at home. • Employees will know the realities of working at home, the conditions, roles, and regulations. • Managers must know how to explain the policies and regulations for working at home. • Managers must know how to manage remotely.	• Checklist • Questionnaire	2
1	• Participants must see this offer as satisfying to their jobs, important to their own success and needs, rewarding, and motivational. • Managers must see this as necessary, appropriate, and important to their own organization's objectives.	• Employees will find satisfaction with, and see the importance of, working at home. • This work arrangement will be rewarding and motivational. • Managers will view this new work arrangement as important and appropriate. • Managers will see the need for the new work arrangement.	• Reaction questionnaire (at the end of the meeting to announce the program)	1

STEP 3

Expect Success: Plan for Results

What is Your Business?

The Possible Measures						
Your choice	**Value Description**	**Rank**	**Measure Now**	**Donor/ Sponsor Rank**	**Percent Measured Now**	**Best Practice**
	"Serve the largest number of people with the least amount of disruption and cost."					100%
	"Participants are engaged, enjoy the programs, and see their experience as valuable."					100%
	"Participants are learning the content, information, and skills to make this program successful."					90%
	"Participants take action, use the content, and make important changes."					30%
	"Participants are driving important impact measures and having an impact in their work, community, or organization."					10%
	"Participants and the organization have a positive return on the investment of their time and the resources for this program."					5%

The figure above shows six possible descriptions of success for the programs. Complete the following exercise to bring into focus the current description of programs and, perhaps, how it should change in the future.

- As a first step, read each value description and select the one (only one) that is the most important to you right now. Place a check to the left of that description.
- Next, rank each of these statements in terms of importance to measuring the success of your programs. Place a number one for the item that you would consider your most important and continue numbering until the least important measure is ranked sixth (6).
- In the next column, check the statements that define the categories you are measuring now. For example, if you are counting the number of people, time in the program, and the costs, check the first item. Check all that apply.
- In the next column, indicate how your sponsors or donors would rank these data items in terms of what is valuable to them from one to six, with one being the most valuable and six the least valuable.
- In the next column, indicate the percentage of programs measured annually now at each of the levels.
- The best practice profile is in the last column, representing the percentages of programs evaluated at each level for each year. Usually, the current versus best practice comparison reveals gaps that serve as opportunities to pursue.

Questions for Discussion

1. Should your ranking change in the future?

2. What would be your ideal listing of importance?

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

Question for Discussion

1. Do you develop objectives at multiple levels? Explain.

Rules for Objectives[1]

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 objectives 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.

[1] 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.

Objectives Profile

Indicate the percent of your programs with objectives at each level.

Level	Percent of Programs with Objectives at This Level	Goal Percent of Programs with Objectives at This Level
Reaction		
Learning		
Application		
Impact		
ROI		

Reaction Objectives

Typical Reaction Objectives

At the end of the program, participants should rate each of the following statements at least a 4 out of 5 on a 5-point scale:

- The program is relevant to my (our) situation.*
- The facilitators/organizers were effective.
- The program is valuable to this mission, cause, or organization.*
- The program is important to my (our) success.*
- The program is motivational for me (us).
- The program is practical.
- The program contained new information.
- The program represented an excellent use of my time.*
- I will recommend the program to others.*
- I will use the concepts and materials from this program.*

*The measures will usually correlate with application.

Question for Discussion

Why are reaction objectives usually omitted? Explain.

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Learning Objectives

Learning objectives can have three components:

- Performance—what the participant or stakeholder will be able to do to make the program successful
- Conditions under which the participant or stakeholder will perform the various tasks and processes
- Criteria—the degree or level of proficiency necessary to perform a new task, process, or procedure that is part of the program

Typical Learning Objectives

After completing the program, participants will be able to:

- Name the three pillars of the new AIDS strategy in 3 minutes.
- Identify the four conditions for a microfinance loan.
- Complete the leadership simulation in 15 minutes.
- Identify the six features of the new ethics policy.

- List five benefits of healthy living.
- Demonstrate the use of each software routine in the standard time.
- Demonstrate the use of problem-solving skills, given a specific problem statement.
- Determine whether they are eligible for the early retirement program.
- List 7 out of 10 harmful effects of pollution.
- Score 75 or better in 10 minutes on the new-product quiz on the first try.
- Demonstrate all five customer-interaction skills with a success rating of 4 out of 5.
- Explain the five benefits of diversity in a work group in 5 minutes.
- Document suggestions for award consideration.
- Follow the steps to secure an appropriate job.
- Score at least 9 out of 10 on a sexual harassment policy quiz.
- Identify five new technology trends presented at the conference.

Question for Discussion

How are learning objectives developed? Explain.

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Application Objectives

Typical Questions for Application Objectives

- What new or improved knowledge will be applied?
- What is the extent of skills used?
- What specific new tasks will be performed?
- What new steps will be implemented?
- What new procedures will be implemented or changed?
- What new guidelines will be implemented?
- Which meetings need to be held?
- Which tasks, steps, or procedures will be discontinued?

Typical Application Objectives

When the program is implemented:

- Within one month, participants will be involved in five job interviews.
- In 15 days, participants will apply for a microfinance loan.
- Ninety-five percent of high-potential employees will complete the steps of their individual development plans within two years.
- At least 50 percent of participants will join a hiking/walking group in 20 days.
- At least 99.1 percent of software users will be following the correct sequences after three weeks of use.

- Diabetic patients will implement three of the four critical behaviors in 30 days.
- Within one year, 10 percent of participants will submit documented suggestions for saving costs.
- Participants will routinely use problem-solving skills when faced with a quality problem.
- Participants will take steps to engage team members each day.
- Sexual harassment activity will cease within one month after the zero-tolerance policy is implemented.
- Thirty percent of citizens will start recycling household waste.
- Eighty percent of employees will use one or more of the three cost-containment features of the healthcare plan in the next six months.
- Fifty percent of conference attendees will follow up with at least one contact from the conference within 60 days.
- By November, pharmaceutical sales reps will communicate adverse effects of a specific prescription drug to all physicians in their territories.
- Customer service representatives will use all five interaction skills with at least half the customers within the next month.
- The average 360-degree leadership assessment score will improve from 3.4 to 4.1 on a 5-point scale in 90 days.

Do you have application objectives in your programs? Explain.

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Impact Objectives

Impact objectives are critical to measuring business performance because they:

- Describe expected business outcomes.
- Describe business unit performance that should be improved by the program.
- Provide basis for measuring the consequences of application of skills and knowledge.
- Place emphasis on achieving bottom line results.

The best impact objectives:

- Must contain measures that are linked to the program.
- Describe measures that are easily collected.
- Are results-based, clearly worded and specific.
- Specify what the participants have accomplished in their work unit as a result of the program.

Typical Impact Objectives

After program completion, the following conditions should be met:

- The infant mortality rate will reduce by 10 percent per year for five years.
- The health status index should improve by five percent during the next calendar year.
- The student debt load should be reduced by 30 percent in three years.
- After nine months, grievances should be reduced from 30 per month to no more than five per month in six months at the VA center.
- Incidents of malaria should reduce by 17 percent in one year.

- Turnover of high-potential employees should be reduced to 10 percent in nine months.
- Complaints of abusive force by police should reduce by 10 percent in six months.
- The average number of new accounts should increase from 300 to 350 per month in six months.
- Unplanned absenteeism of call center associates should decrease by 30 percent within the next calendar year.
- At least 50 microfinance loans will be approved in quarter one.
- At least 90 percent of microfinance loans will be paid back on schedule.
- A 20 percent reduction in overtime should be realized for staff in the third quarter of this year.
- Citizen complaints should be reduced from an average of three per day to an average of one per day.
- Process time for work visas will be reduced by 30 percent in two months.
- By the end of the year, the average number of product defects should decrease from 210 per month to 150 per month.
- Operating expenses should decrease by 10 percent in the fourth quarter.
- There should be a 10 percent increase in brand awareness among physicians during the next two years.
- Product returns per month should decline by 15 percent in six months.

Why don't we have more impact objectives? Explain.

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ROI Objectives

Defining the ROI Calculation

$$\text{Benefit Cost Ratio (BCR)} = \frac{\text{Program Benefits}}{\text{Program Costs}}$$

$$\text{ROI (\%)} = \frac{\text{Benefits} - \text{Costs}}{\text{Program Costs}} \times 100$$

Exercise:

Costs per program (25 participants) – $80,000
Benefits per program (1st year) – $240,000

Benefit Cost Ratio (BCR)= ____________

ROI = ____________ x 100 = ________%

ROI Objective Options

1. Set the value at the same level as other investments: 15%.
2. Set slightly above other estimates: 25%.
3. Set at breakeven: 0%.
4. Set at client expectations.

Private sector organizations usually go with option #2; public sector organizations prefer #3.

The Power of Objectives

Application/Impact Objectives Drive Programs

Application/Impact Objectives Enhance Design and Development

Application/Impact Objectives Improve Facilitation

Application/Impact Objectives Help Participants Understand What Is Expected

Impact Objectives Excite Sponsors and Donors

Application/Impact Objectives Simplify Evaluation

All Levels of Objectives Inform the Stakeholders

Matching Evaluation Levels with Objectives

Instructions: For each objective listed below, indicate the level of evaluation at which the objective is aimed.

- Level 1: Reaction
- Level 2: Learning
- Level 3: Application
- Level 4: Business Impact
- Level 5: Return on Investment

Objective	**Evaluation Level**
After completing this program or project, participants should:	
1. Improve productivity by 20% in six months.	____________
2. Initiate at least three cost reduction projects in 15 days.	____________
3. Achieve an average cost reduction of $20,000 per service provider contract.	____________
4. Use conflict resolution skills in 90% of conflict situations.	____________
5. Achieve a 2:1 benefit to cost ratio one year after the new procurement program is implemented.	____________
6. Be able to describe the four elements of the refugee integration assistance program.	____________
7. Decrease parenting stress by 25% in three months.	____________
8. Resolve complaints with the 5-step process in 95% of complaint situations.	____________
9. Perceive the absenteeism control policy to be fair.	____________
10. Achieve a leadership simulation score average of 75 out of a possible 100.	____________
11. Increase the percentage of crimes solved by 30% in 6 months.	____________
12. Provide a 4 out of 5 rating on appropriateness of new ethics policy.	____________
13. Decrease the time to recruit new professional staff from 60 days to 30 days.	____________
14. Complete all steps on action plan in three months.	____________
15. Achieve a positive reaction to flextime work schedule system.	____________
16. Achieve English as a Second Language (ESL) test score of 75 out of 100.	____________
17. Decrease the amount of time required to complete a project by an average of two days in three months.	____________
18. Achieve a post-test score increase of 30% over pre-test for AIDS awareness.	____________
19. Utilize new software daily as reflected by an 80% score on an unscheduled audit of use.	____________
20. Submit ideas or suggestions for improvement in the first year (10% target).	____________

The Power of Objectives

In summary, what are the advantages of Level 3 and Level 4 objectives for these stakeholders?

- Direction to designers and developers
- Guidance to facilitators and coordinators
- Goals for participants
- Satisfaction for program sponsors
- A framework for evaluators

Exercise: Aligning Need and Program Objectives
With members of your table group, identify a program or initiative. Clarify the needs of the program as best you can. Then develop at least one objective for each need.

Program Title: ______________________________ Audience: __________________________

Key Questions	Need	Objective
Level 5 Potential Payoff • What is the potential payoff or opportunity?		
Level 4 Impact • What are the specific impact measures that must improve?		
Level 3 Performance • What should participants be doing (or not doing) that will influence these measures?		
Level 2 Learning • What must participants learn to do or stop doing to deliver the desired performance?		
Level 1 Preferences • How should participants perceive the value of the program?		

Needs	Program Alignment V Model	Evaluation
Start Here		End Here
5 Payoff Needs	ROI Objectives	5 ROI
4 Business Needs	Impact Objectives	4 Impact
3 Performance Needs	Application Objectives	3 Application
2 Learning Needs	Learning Objectives	2 Learning
1 Preference Needs	Reaction Objectives	1 Reaction
	Project	
Business Alignment and Forecasting		The ROI Process Model

Payoff Needs

- Visa processing takes too long and is too expensive. Applicants not pleased with service.

ROI Objectives

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Business Needs

- Complaints are averaging 85 per 1000 visas processed.
- Visa processing takes 1.1 hours
- Applicants must wait 3 weeks
- Cost per visa is $49.00

Impact Objectives

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Performance Needs

- New system needed
- Staff must use the system properly
- Staff needs better customer service skills

Application Objectives

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Learning Needs

- Staff will not know how to use the system
- Staff needs to learn customer service skills

Learning Objectives

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Preference Needs

- Staff must perceive the software as relevant and easy to use
- Staff must see customer service skill as necessary

Reaction Objectives

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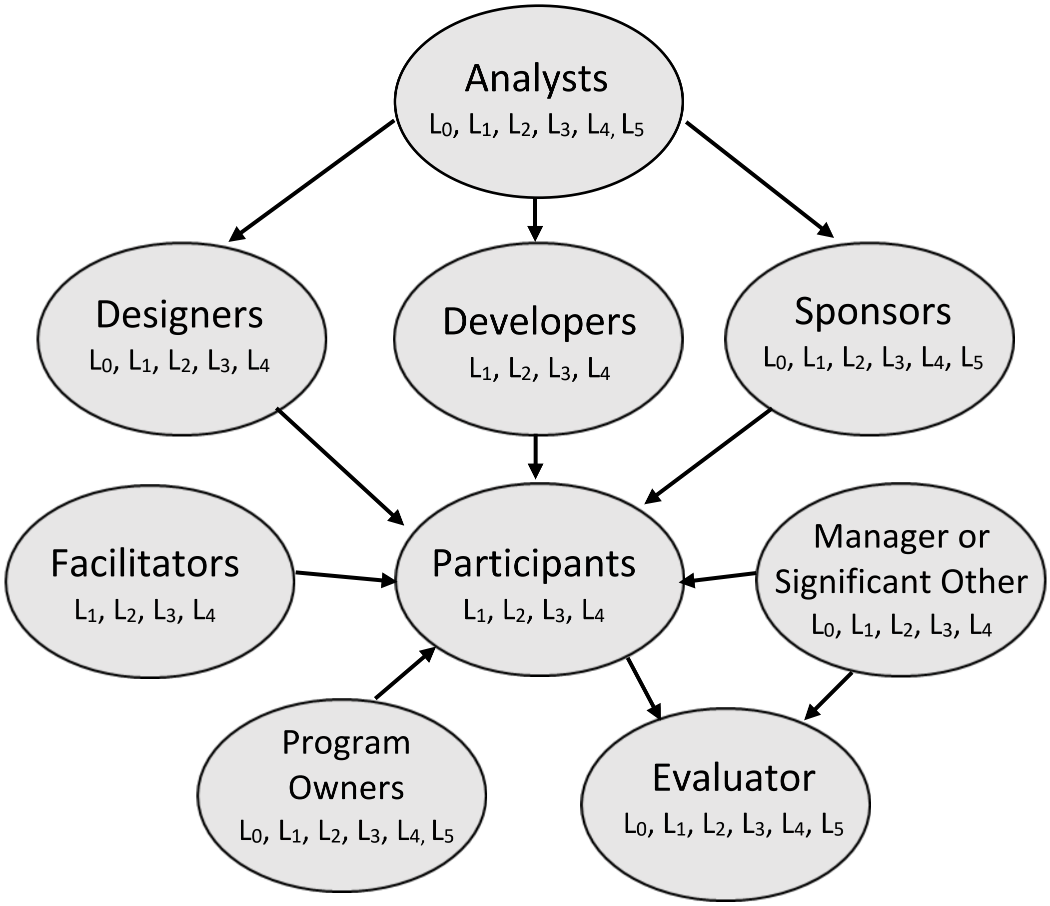
Roles and Responsibilities

The Objectives Needed for Important Stakeholders



Questions for Discussion

1. What roles do you have?

2. What's your reaction to the objectives provided at each level? Discuss with your colleagues.

3. Is it possible for each stakeholder to influence the application and impact? Explain.

Status of Measurement

Level	Measurement Category	Current Status*	Goal in 5 Years*	Comments About Status
0	**Inputs/Indicators** Measures the number of services, participants, clients, and efficiencies	100%	100%	This is being accomplished now 100%†
1	**Reaction and Planned Action** Measures reaction to the service experience, content, and value of services	100%	100%	Need more focus on content and perceived value 80%†
2	**Learning** Measures what participants learned in the program—information, knowledge skills, and contacts (take-aways from the program or services)	30 – 40%	80 – 90%	Must use simple learning measures 70%†
3	**Application** Measures progress of implementation of services—the use of information, knowledge, skills, and contacts	10%	30%	Need more follow-up 49%†
4	**Business Impact** Measures changes in impact variables such as jobs, health status, income, education, crime, and cost linked to the program or services	5%	10%	This is the connection to business impact 37%†
5	**ROI** Compares the monetary benefits of the impact measures to the costs of the program.	1%	5%	The ultimate level of evaluation 18%†

* Percent of Programs Evaluated at This Level
† Best Practice Benchmarking (user for 5 plus years)
Add your numbers in each box.

Exercise: What concerns do you have about these percentages?

Evaluation Planning Meeting

Who Should Be Involved?

- Program owner
- Program designer
- Program analyst
- Program facilitator
- Business unit partner
- Subject matter expert
- Typical participant

Factors for Success

- Credible sources
- Access to data
- Complete coverage
- Move quickly
- Consider outputs to be drafts
- Sponsor sign-off

Agenda

- Explain purpose
- Finalize/adjust objectives
- Complete data collection plan
- Complete ROI analysis plan step-by-step
- Compile ROI project plan step-by-step

Notes:

Data Collection Plan

Evaluation Purpose: ____

Program: ______________________ **Responsibility:** ____________________ **Date:** __________

Level	Broad Program Objective(s)	Measures	Data Collection Method/Instruments	Data Sources	Timing	Responsibilities
1	REACTION AND PLANNED ACTION					
2	LEARNING					
3	APPLICATION AND IMPLEMENTATION					
4	BUSINESS IMPACT					
5	ROI	**Baseline Data:**				
		Comments:				

ROI Analysis Plan

Program: ______________________ **Responsibility:** ______________________ **Date:** ______________________

Data Items (Usually Level 4)	Methods for Isolating the Effects of the Program/ Process	Methods of Converting Data to Monetary Values	Cost Categories	Intangible Benefits	Communication Targets for Final Report	Other Influences/ Issues During Application	Comments

Project Plan

	F	M	A	M	J	J
Decision to Conduct ROI Study						
Evaluation Planning Complete						
Data Collection Instrument Designed						
Data Collection Instrument is Pilot Tested						
Data Collected						
Data Tabulation Preliminary Summary						
Analysis Conducted						
Report is Written and Finalized						
Results Communicated						
Improvements Initiated						

Collectively, these three planning documents provide the direction necessary for the Impact/ROI study. Most of the decisions regarding the process are made as these planning tools are developed. Thereby, the remainder of the project becomes a methodical, systematic process of implementing the plans. This is a crucial step in the ROI Methodology, where valuable time allocated to planning will save precious time later.

Notes:

Step 4

Make it Matter: Design for Input, Reaction, and Learning

Applications of Data Collection Instruments Matching Exercise

For each of the following situations, please indicate the most appropriate type of instrument/ method used to collect data needed in the program's evaluation. Select from these types:

A.	Survey	E.	Focus Groups
B.	Test	F.	Observation
C.	Questionnaire	G.	Performance Records
D.	Interview		

Write the letter in the box to the right of each question.
Also indicate the level of evaluation pursued (1, 2, 3, or 4) in the second box.

	Instrument	Level
1. Field representatives have learned to resolve complaints in the most effective manner. An integral part of the program required them to follow a series of planned steps to resolve the complaint, using empathy and listening skills. As part of the evaluation, the staff must determine the extent to which the field representatives are actually using the newly acquired skills.	☐	☐
2. Team members are involved in a conflict resolution program where they acquired skills to resolve conflicts and disputes among themselves. Team members in this work group have a high degree of interaction and some responsibilities include checking the work of others. There had been an unusually high level of friction with displays of open conflicts in the group. In the program, participants learned how to deal with these issues and work together as a smooth operating team. The staff needs to collect information about the group's progress with using the skills, ideally in an environment where there is an opportunity for group members to listen to comments from others.	☐	☐
3. Technicians participate in an e-learning program on compliance and are required to achieve a pre-determined level of competency with compliance after completing the program. The staff measures the level of knowledge before and after the program.	☐	☐
4. The project management team has participated in a program to teach them how to use the new project management software that is being installed. As part of the evaluation, it is important to obtain reactions to the program and capture planned actions and a forecast of success.	☐	☐
5. The agency has implemented a new cyber-security program. Employees have attended a roll-out meeting where they have the opportunity to learn how the program works and what is required of them to make it successful. As part of the evaluation, management is interested in finding out what the staff thinks about the new program after attending the briefing.	☐	☐
6. Operations representatives are implementing a new enterprise resource system designed to improve quality, improve productivity, and reduce costs. One objective of the system is to reduce errors. The staff must determine exactly what decrease in errors was achieved by each individual since the program was conducted.	☐	☐
7. Field managers participate in a problem-solving program, where they learned a logical approach to solving significant problems facing their teams. As a part of the program's evaluation, the staff needs feedback from the managers concerning their use of the acquired skills. The staff thinks there is a possibility of a success story here and will need to probe for details.	☐	☐

Data Collection Issues

- Objectives
- Types of data
- Instruments/Methods
- Sources of data
- Timing of collection
- Responsibilities
- Response rate
- Sampling

What are your issues?

Methods for Collecting Program Data

Method	Level 1	Level 2	Level 3	Level 4
Surveys	✓	✓	✓	
Questionnaires	✓	✓	✓	✓
Observation		✓	✓	
Interviews	✓	✓	✓	
Focus Groups	✓	✓	✓	
Tests		✓		
Action Planning			✓	✓
Performance Contracting			✓	✓
Performance Monitoring				✓

Questions for Discussion

1. What has been your experience with these data collection methods?

2. Which methods do you want to explore?

Survey/Questionnaire Design

- Determine the specific information needed
- Review information with stakeholders
- Select the type(s) of questions
- Keep questions and statements simple
- Develop the questions
- Design for easy tabulation and analysis
- Check the reading level
- Address the anonymity issue
- Test the questions
- Review results of the field test
- Develop the completed questionnaire
- Develop administrative procedures

Common Mistakes in Survey/Questionnaire Design

- Vague statements/questions
- Too many questions
- Reading level too high
- Improperly worded questions
- Confusing instructions
- Too difficult to analyze

Questionnaire Design Checklist	Yes	No
1. Is the overall length appropriate?	☐	☐
2. Is it a valid instrument? (Does it measure what it is designed to?)	☐	☐
3. Is it a reliable instrument? (Consistency)	☐	☐
4. Do the questions flow properly? (Order)	☐	☐
5. Are the types of questions appropriate for the information desired?	☐	☐
6. Are the questions designed to take advantage of data comparisons?	☐	☐
7. Is it designed to minimize distortion?	☐	☐
8. Are the questions designed to ease data tabulation and analysis?	☐	☐
9. Have administrative issues been addressed?	☐	☐
10. Is it easy to read? (Appropriate reading level)	☐	☐
11. Are the instructions clear?	☐	☐
12. Have steps been taken to ensure confidentiality?	☐	☐
13. Have provisions been made for demographic data?	☐	☐
14. Is the appearance of the questionnaire adequate?	☐	☐
15. Is a pre-test scheduled?	☐	☐

Considerations When Designing Response Choices

- Variance – are there enough choices?
- Discrimination – can you tell the difference between choices?
- Accuracy – do the scale labels accurately describe the choices?
- Symmetry – is the scale balanced appropriately?

Considerations When Designing Survey Questions

- Focus– every question should focus on a single issue or specific topic
- Brevity– short questions present less opportunity for measurement error
- Clarity– clear questions are understandable to all respondents

Types of Objective Tests

- True/false
- Matching items
- Multiple choice items
- Fill in the blank items
- Short answer items
- Essay items

Steps to Developing Objective Tests

- Focus on one set of related course objectives at a time
- Determine behavioral evidence of capability related to these objectives
- Select a format, e.g. recall, recognition, and an item type, e.g. multiple choice, short answer, etc., that fits the objectives
- Develop three to five items for each objective
- Sequence items in a logical order. e.g. the order concepts were presented
- Prepare test instructions that are simple and easy to understand
- Pilot test

What is your experience with tests?

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Interview Design

Structured and Unstructured

- List basic questions to be asked
- Follow the same principles as survey/ questionnaire design
- Allow for probing
- Try out the interview
- Prepare the interviewers
- Provide instructions to the individual being interviewed
- Administer the interviews consistently

What is your experience with interviews?

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Focus Group Guidelines

- Select topics, questions, and strategy carefully
- Keep the group size small (usually 8-12)
- Ensure that there is a representative sample of the target population
- Insist on facilitators having appropriate expertise
- Stay on track and on time
- Allow equal time for all participants
- Control over-talking and under-talking

What is your experience with focus groups?

Observations Guidelines

- Observations should be systematic
- Observers should know how to interpret and record what they see
- Observer's influence should be minimized
- Observers must be carefully selected
- Observers must be prepared

Observation Methods

- Video Recording
- Audio Monitoring
- Computer Monitoring (software)
- Behavior Checklist
- Coded Behavior Record
- Delayed Report Method

What is your experience with observation?

Typical Sources of Performance Data

- Operating reports
- Departmental reports
- Audits
- Key performance indicators
- Quality reports
- Scorecards
- Dashboards
- Community records

Monitoring Performance Data

- Identify appropriate data sources
- Collect data related to objectives only
- Develop new data as needed
- Convert current data to usable items
- Develop a collection plan to include Who, What, Where, and When

What is your experience with monitoring performance data?

Making Data Collection Work

Characteristics of Instruments/Methods

- Valid
- Reliable
- Simple
- Economical
- Easy to administer
- Easy-to-analyze data

Selecting Data Collection Methods

- Time required for participants
- Time required for participant's supervisor
- Costs of method
- Amount of disruption of normal activities
- Accuracy
- Utility
- Culture / Philosophy

Sources of Information

- Participants
- Supervisors of participants
- Subordinates of participants
- Peer group
- Internal staff
- External group
- Organizational performance records

Timing of Follow-Up

- Availability of Data
- Ideal Time for Application (Level 3)
- Ideal Time for Business Impact (Level 4)
- Convenience of Collection
- Constraints on Collection

Data Collection Exercise:

Program: Workshop for Program Directors
Audience: 50 Program Directors (two groups)
Follow Up: Anonymous questionnaire in three months to collect application and impact data

Assignment:

1. What topics should be included in the questionnaire? (Content)

____

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Matching Exercise: The Twelve Guiding Principles of ROI

Instructions: For each the following situations please indicate the most appropriate Guiding Principle of the ROI Process being used. Write the number of the appropriate Guiding Principle in the box to the right of each question.

Situations	GP
A. While planning an ROI study for a new program at a large nonprofit hospital, the analyst suggested that the methods of isolation of results should include employee estimates of impact, supervisory estimates of impact, and some industry data provided from the vendors of the program. After some discussion, two of the sources of information were eliminated because they are not very credible.	☐
B. For two years, a state environmental agency has been conducting a change management program designed to change the culture at the agency. A full-scale ROI study was conducted in the second year of the program with randomly selected cohorts of those involved in the program. Four levels of data are collected for the evaluation to provide a complete profile of success.	☐
C. The Department of Motor Vehicles implemented a program to improve customer service for eight groups of 25 service agents over the course of one year. Data were collected for the last four groups of analysts, for a total of 100 participants. Only thirty-five responded with business results, and some of the staff argued that the results of the 35 should simply be extrapolated to the missing 65. They argued that the training for all service agents was the same and that the results were more than likely common to all analysts trained. This argument was rejected by the manager. Why?	☐
D. The quality manager for the Transportation Authority was provided the results of a recent program designed to address or reduce bus delays. To calculate ROI, the monetary value of a bus delay was needed. Two sources were identified for the monetary value and both were equally credible. The lowest value was used. Why?	☐
E. A successful Lean program was conducted for a highway department that resulted in substantial cost reductions, due to reduced inventories and less errors in the contracting process. The manager reported that in addition to these results, morale was at an all-time high and there was a visible reduction in worker stress, both connected to the program. The manager valued these	☐

improvements but decided not to include them in the ROI calculation because of the difficulty of converting them to money.

F. The results of a nine-month comprehensive employee recognition program at a large not-for-profit charitable organization resulted in significant change in supervisor behavior and employee satisfaction, but unfortunately had negligible measurable impact and a negative ROI. Because the ROI results were negative, the evaluator did not report the results to anyone. Did their approach violate a Guiding Principle? ☐

G. Several administrators in the police department were involved in a coaching program that was connected to a specific impact measure. As part of the analysis of results, these individuals asked to provide their estimates of the amount of impact that was attributed to the coaching program. When the estimates were collected, they were further asked to provide their level of confidence in the estimates provided. Why? ☐

H. The collection department in a state revenue agency implemented a comprehensive negotiation program which resulted in the application of negotiation skills. In addition, the participants reported impressive monetary impacts. Five of the groups of managers who received the program were involved in the study. Of the 75 managers involved, 56 provided monetary values. One of the managers reported more than $1,000,000 in savings. A decision was made to omit the value from the ROI calculation in the study. Why? ☐

I. A comprehensive program at a state-owned hospital system resulted in an ROI of 50%, based on a reduction in the length of stay (LOS) of patients. The monetary value of the LOS improvement was based on the first year of results. The executive asking for the study wanted to assume five years of improvement to achieve a 150% ROI. The quality manager, recently certified in the ROI methodology, argued against this approach. Why? ☐

J. An ROI study was conducted on a program designed to improve the writing skills of all professional employees at a Canadian Government agency. The cost of the program was calculated by using the cost of the vendor-provider and the associated materials. When the sponsor was asked why the costs failed to include 1) the analysis of the writing issue, 2) the employees' time in the program, and 3) follow-up tutoring for employees, they responded that these were indirect costs. What was wrong with this reasoning? ☐

K. Canada Post implemented a successful program that appeared to cause a significant sales increase for postal products. On examination, several factors were considered possible contributors to the improvement, including an increase in advertising, a new marketing promotion and aggressive sales goals. The marketing manager decided that some steps must be taken to see how much of the sales increase was really due to the program. Which Guiding Principle has influenced this decision? ☐

☐

STEP 5

Make it Stick: Design for Application and Impact

The Value of Mindfulness

Headspace and Calm, two smartphone apps, are taking meditation mainstream and share nearly identical missions to increase health and happiness around the world. But behind the blissful marketing mantras, Headspace and Calm are locked in a head-to-head fight to dominate the booming $1.2 billion meditation market.

"I would say we're in mindful competition with each other," said Michael Acton Smith, co-CEO and co-founder of Calm, based in San Francisco.[1]

The meditation industry includes studio classes, workshops, books, online courses, and apps, according to a 2017 estimate by Marketdata Enterprises. Over the past five years, the national meditation rate has tripled, and within two years the number of adults in the U.S. who meditate will be more than those who practice yoga, according to a report from the Centers for Disease Control and Prevention.

This expanding attention to mindfulness has ignited the digital industry with more than 2,000 meditation apps launching in the last three years. Headspace and Calm account for about 85 percent of the revenue generated by the top 10 apps in the category, according to Sensor Tower Data.

With hopes that mindfulness will improve productivity and reduce stress-related healthcare costs, many businesses are assisting employees with the practice. According to a survey by The National Business Group on Health and Fidelity Investment, in 2016 nearly 22 percent of companies offered meditation training, and in 2017 an additional 21 percent of businesses added the benefit.

A major resource on mindfulness suggested that programs are implemented to:

- Become more relaxed and calm.
- Cope better with stress and anxiety.
- Help prevent myself from getting into depression.
- Have better concentration and focus.
- Cope with chronic pain or illness.
- Enjoy and appreciate my life more.
- Handle strong emotions more successfully.
- Have greater self-awareness and insight.
- Be more accepting of myself and others.
- Connect with a sense of meaning or something bigger than myself.
- Have more sense of space in my life.[2]

New research papers are published routinely on the use of mindfulness in coping with mental health issues such as drug addiction or obsessive-compulsive disorder (OCD) and some physical health conditions, such as tinnitus. Still other studies focus on the health benefits and well-being mindfulness provides to specific groups of participants, such as parents, students, or prisoners. In their 2012 book, *The Mindful Manifesto*, Ed Halliwell and Jonty Heaversedge provide inspiring evidence for mindfulness and its benefits.[3]

1. H. Potkewitz. "The Battle to Control Your Mindfulness." *The Wall Street Journal*. December 17, 2018. A13.
2. T. Watt. *Mindfulness: A Practical Guide*. New York, NY: MJF Books. 2012.
3. J. Heaversedge and E. Halliwell. *The Mindful Manifesto: How Doing Less and Noticing More Can Help Us Thrive in a Stressed-Out World*. Carlsbad, CA: Hay House Publishing. 2012.

Here are some of the key areas where mindfulness has been shown to be helpful:

- Stress reduction
- Depression improvement
- Pain reduction
- Illness prevention

Science is now backing up the benefits of mindfulness experienced by many who people who practice it. Neuroscientists, using MRI technology to examine the brains of those who meditate, have found fascinating results.

The brain can strengthen in certain regions according to how we use it, just as muscles can strengthen with exercise. For example, the brains of medical students involved in intense periods of study show changes in the areas important for memory. Several studies have shown that people who meditate have more active grey matter in the areas of the brain that regulate emotions and are associated with happiness and well-being. These changes in brain structure and activity have been documented both in seasoned meditators and those with just a few weeks of mindfulness practice.

Questions for Discussion

1. Could a mindfulness program be evaluated the Impact or ROI Level? Please explain.

____

____

2. Ideally, what should be done to ensure that results are delivered?

____

____

3. What specific impact measures could be aligned with this program? How will they be identified?

____

____

4. What topics will be evaluated for reaction, learning, and application?

____

____

5. What data collection methods should be used to collection reaction, learning, application, and impact?

____

____

Example Questionnaire Items: Global Health Organization (GHO)

Impact Questionnaire for the Leadership Development Program, GHO

NOTE: This example is used only to illustrate a sampling of questions that may be asked on a follow-up questionnaire. It is not intended to represent a document that is ready for implementation.

Instructions: Please complete this questionnaire as promptly as possible. To provide responses, you will need to reflect on the Leadership Development Program and think about specific ways in which you have applied what you learned from each session. It may be helpful to review the materials from each session.

Please take your time as you provide responses. Accurate and complete responses are very important. You should be able to provide thorough responses in about 20 minutes.

You will need your action plan as you respond to several items on the questionnaire. Please review the action plan and make sure that each page is accurate and complete. Attach a copy of the action plan to the questionnaire when it is returned.

Please be objective in providing responses. In no way will your name be linked to your input. Your questionnaire and action plan will be viewed only by a representative from an outside firm, ROI Institute. Specific responses or comments related to any individual will not be communicated to your employer.

Your responses will help determine the impact of this program. In exchange for your participation in this evaluation, a copy of a report summarizing the success of the entire class will be distributed to you within a couple of months. Please make sure that your input is included with all of your classmates.

Should you need clarification or more information, please contact your instructor, your Cyber International representative, or a representative from ROI Institute.

GHO Leadership Development Program Impact Questionnaire

Are you currently in a supervisory or management role/capacity? **Yes❑ No❑**

1. Listed below are the objectives of the Leadership Development Program. After reflecting on the program, please indicate your degree of success in achieving these objectives. *Please check the appropriate response beside each item.*

Skill/Behavior	No Success	Very Little Success	Limited Success	Generally Successful	Completely Successful
A. Apply the Advantage 11-step goal-setting process	❑	❑	❑	❑	❑
B. Apply the Advantage 12-step leadership planning process	❑	❑	❑	❑	❑
C. Identify the 12 core competencies of outstanding leaders	❑	❑	❑	❑	❑
D. Identify 10 ways to create higher levels of employee loyalty and satisfaction	❑	❑	❑	❑	❑
E. Apply the concept of Deferred Judgment in five scenarios	❑	❑	❑	❑	❑
F. Apply the Advantage creative problem-solving process to an identified problem	❑	❑	❑	❑	❑
G. Identify the seven (7) best ways to build positive relationships	❑	❑	❑	❑	❑
H. Given a work setting situation, apply the Advantage four-step approach to deal with errors	❑	❑	❑	❑	❑
I. Practice six (6) ways to improve communication effectiveness	❑	❑	❑	❑	❑

2. Did you implement on-the-job action plans as part of the Leadership Program?
   Yes❑ No❑

   If yes, complete and return your Action Plans with this questionnaire. If not, please explain why you did not complete your Action Plans.

3. Please rate, on a scale of 1-5, the relevance of each of the program elements to your job, with (1) indicating no relevance, and (5) indicating very relevant.

	No Relevance				Very Relevant
Group (Class) Discussions	1	2	3	4	5
Small Team Discussions	1	2	3	4	5
Skill Exercises (scenarios, role plays, etc.)	1	2	3	4	5
Program Content	1	2	3	4	5
Coaching and Critique	1	2	3	4	5
Special Projects (leadership plan, job description, time log, money saving, etc.)	1	2	3	4	5

4. Have you used the written materials since you participated in the program?

   Yes❑ No❑

   Please explain. ____

5. In the following result areas, please indicate the level of improvement during the last few months as influenced by your participation in the Leadership Development Program. C*heck the appropriate response beside each item.*

Result Area	No Opportunity to Apply	No Change	Some Change	Moderate Change	Significant Change	Very Significant Change
A. ORGANIZING						
1) Prioritizing daily activities	❑	❑	❑	❑	❑	❑
2) Applying creative techniques	❑	❑	❑	❑	❑	❑
3) Organizing daily activities	❑	❑	❑	❑	❑	❑
4) Raising level of performance standards in area of responsibility	❑	❑	❑	❑	❑	❑

Result Area	No Opportunity to Apply	No Change	Some Change	Moderate Change	Significant Change	Very Significant Change
B. WORK CLIMATE						
1) Applying coaching	❑	❑	❑	❑	❑	❑
2) Applying techniques/ initiatives that influence motivational climate	❑	❑	❑	❑	❑	❑
3) Implementing actions that influenced retaining people	❑	❑	❑	❑	❑	❑
4) Implementing job enrichment opportunities for valued associates	❑	❑	❑	❑	❑	❑
5) Implementing better control and monitoring systems	❑	❑	❑	❑	❑	❑
6) Applying techniques that influenced better teamwork	❑	❑	❑	❑	❑	❑
C. PERSONAL OUTCOMES						
1) Realizing improved written communications	❑	❑	❑	❑	❑	❑
2) Realizing improved oral communications	❑	❑	❑	❑	❑	❑
3) Realizing greater self-confidence	❑	❑	❑	❑	❑	❑
4) Working personal leadership plan	❑	❑	❑	❑	❑	❑

6. List the three behaviors or skills from the above list that you have used most frequently as a result of the program.

   A) ____

   B) ____

   C) ____

7. What has changed about you or your work as a result of your participation in this program? (Specify behavior change such as: increased delegation to employees, improved communication with employees, employee participation in decision making, improved problem solving, etc.)

8. How has GHO benefited from your participation in the program? Please identify specific business accomplishments or improvements that you believe are linked to participation in this program. (Think about how the improvements actually resulted in influencing business measures, such as increased productivity, improved quality, improved absenteeism, improved employee satisfaction, decreased costs, saved time, etc.)

9. Please define the first measure you selected and its unit for measurement. For example, if you selected "absenteeism," your unit of measure may be "one unplanned absence."

10. For this measure, what is the monetary value of improvement for one unit of this measure? For example, the value of one unplanned absence is two times the daily wage rate. Although this step is difficult, please make every effort to estimate the value of a unit. Put the value in the currency you selected, round to the nearest whole value, enter numbers only, e.g. $2,000.50 should be input as $2,000

11. Please state your basis for the value of the unit of improvement you indicated above. In the absenteeism example, a standard value of two times the daily wage is used, so "standard value" is entered here.

12. For the measure listed as most directly linked to the program, how much has this measure improved in performance? If not readily available, please estimate. If you selected "absenteeism," show the actual decrease (e.g., 7% - 4% = 3%). You can input a number with up to 1 decimal point.

13. Indicate the frequency base for the measure.

    ☐ daily ☐ weekly ☐ monthly ☐ quarterly

What is the annual value of improvement in the measure you selected above? Multiply the improvement (question 12) by the frequency (question 13) times the unit of value (question 10). For example, if you selected "absenteeism," multiply the improvement by the frequency to arrive at the annual value (e.g. 3% X 20 employees X 220 days per year X $200 per day = $26,400).

Although this step is difficult, please make every effort to estimate the value. Put the value in the currency you selected, round to nearest whole value, enter numbers only, e.g. $26,400.50 should be input as 26,400.

14. List the other factors that could have influenced these results.

____

15. Recognizing that the other factors could have influenced this annual value of improvement, please estimate the percent of improvement that is attributable (i.e. isolated) to the program. Express as a percentage, out of 100%. For example, if only 60% of the absenteeism is attributable to the program, enter 60 here. _________%

16. What confidence do you place in the estimates you have provided in the questions above? A 0% is no confidence, a 100% is certainty. Round to nearest whole value, and enter a number only, e.g., 37.5% should be entered as 38. _________%

17. Do you think this *Leadership Development Program* represented a good investment for GHO?

    Yes❑ **No❑**

    Please explain____

18. Indicate the extent to which you think your application of knowledge, skills and behavior learned from the *Leadership Development Program* had a positive influence on the following business measures in your own work or your work unit. *Please check the appropriate response beside each measure.*

Business Measure	Not Applicable	Applies but No Influence	Some Influence	Moderate Influence	Significant Influence	Very Significant Influence
A. Productivity	❑	❑	❑	❑	❑	❑
B. Quality	❑	❑	❑	❑	❑	❑
C. Cost control	❑	❑	❑	❑	❑	❑
D. Efficiency	❑	❑	❑	❑	❑	❑
E. Cycle time	❑	❑	❑	❑	❑	❑
F. Length of stay	❑	❑	❑	❑	❑	❑
G. Employee turnover	❑	❑	❑	❑	❑	❑
H. Employee absenteeism	❑	❑	❑	❑	❑	❑
I. Employee satisfaction	❑	❑	❑	❑	❑	❑
J. Employee complaints	❑	❑	❑	❑	❑	❑
K. Patient satisfaction	❑	❑	❑	❑	❑	❑
L. Image	❑	❑	❑	❑	❑	❑
M. Other (please specify)	❑	❑	❑	❑	❑	❑

Please cite specific examples or provide more details: ______________________

19. What additional benefits have been derived from this program? ________________________

20. What barriers, if any, have you encountered that have prevented you from using skills/behaviors gained in the Leadership Program? *Check all that apply.*

- ❑ I have had no opportunity to use the skills.
- ❑ I have not had enough time to apply the skills.
- ❑ My work environment does not support the use of these skills/behaviors.
- ❑ My manager does not support this type of program.
- ❑ This material does not apply to my job situation.
- ❑ Other (please specify): ____

If any of the above are checked, please explain, if possible.

____

____

21. What enablers, if any, are present to help you use the skills or knowledge gained from this program? Please explain.

____

____

22. What additional support could be provided by management that would influence your ability to apply the skills and knowledge learned from the program?

____

____

23. What additional solutions do you recommend that would help to achieve the same business results that the *Leadership Program* has influenced?

____

____

24. Would you recommend the Leadership Program to others? Yes❑ No❑

Please explain. If no, why not? If yes, what groups/jobs and why?

____

____

25. What specific suggestions do you have for improving this program?

____

____

26. Other Comments:

Developing ROI with Action Planning

Before

- Communicate the action plan requirement early.
- Have them select actions/measures in advance.

During

- Describe the action planning process at the beginning of the program.
- Teach the action planning process.
- Allow time to develop the plan.
- Have the facilitator approve the action plan.
- Require participants to assign a monetary value for each proposed improvement.
- If possible, require action plans to be presented to the group.
- Explain the follow-up mechanism.

After

- Require participants to provide improvement data.
- Ask participants to isolate the effects of the program.
- Ask participants to provide a level of confidence for estimates.
- Collect action plans at the pre-determined follow-up time.
- Summarize the data and calculate the ROI.

Is there an opportunity to use action plans in your programs? Explain.

Action Plan

Name___________________ **Instructor Signature**______________________ **Follow-Up Date** ___________________

Objective____ **Evaluation Period** _________ **to** ____________

Improvement Measure____________________ **Current Performance** ____________________ **Target Performance**_________

ACTION STEPS: ***I will do this…***	**END RESULT:** ***So that…***
1.	
2.	
3.	
4.	
5.	
6.	
7.	

EXPECTED INTANGIBLE BENEFITS:

Sample Action Plan

Name: Cynthia Pathmoor Facilitator Signature:_____________ Follow-Up Date: Nov 30 Objective: Reduce passenger complaints by at least 25%

Evaluation Period: May to November Improvement Measure: Passenger complaints

Current Performance 21 per month Target Performance 15 per month

Action Steps		Analysis
1. Review reasons for complaints, sort out items under our control	May 30	A. What is the unit of measure? 1 passenger complaint
		B. What is the value (cost) of one unit? €600
2. Change protocol with customers based on step 1	June 10	C. How did you arrive at this value? Provided by the Services Dept.
3. Have team sharing session each week to focus on complaints	June 11	D. How much did the measure change during the evaluation period? (monthly value) 8 per month
4. Provide team feedback when necessary for members who need help	June 15	E. List the other factors that have influenced this change Service Delivery Process Enhancement, Customer First Campaign
5. When a team member prevents a complaint, establish a complaint prevention award.	June 20	F. What percent of this change was actually caused by this program? 30 %
6. Celebrate monthly successes	July 1	G. What level of confidence do you place on the above information? (100%=Certainty and 0%=No Confidence) 80 %
7. Have three-month review and adjust as necessary	Aug 15	H. Monetary value (B x D x F x G x 12) __________
Intangible Benefits: Customer satisfaction; customer engagement		

Comments: Program helped us focus on providing good service

Action Plan Example

Safe Workplace Action Plan

Name: Ellie Hightower Facilitator Signature: ____________________________ Follow-up Date: 1 June
Objective: Improve workplace safety Evaluation Period: December to May
Improvement Measure: Monthly slips and falls Current Performance: 11/six months Target Performance: 2/six

Action Steps		Analysis
1. Meet with team to discuss reasons for slips and falls.	2 Dec.	A. What is the unit of measure? 1 slip and fall
2. Review slip and fall records for each incident with safety—look for trends and patterns.	18 Dec.	B. What is the value (cost) of one unit? $1,750
3. Make adjustments based on reasons for slips and falls.	22 Dec.	C. How did you arrive at this value? Safety and Health—Frank M.
4. Counsel with housekeeping and explore opportunities for improvement.	5 Jan.	D. How much did the measure change during the evaluation period? (monthly value) 8 (11 – 3)
5. Have safety conduct a brief meeting with team members.	11 Jan.	E. What other factors could have caused the improvement? A new campaign from safety and health.
6. Provide recognition to team members who have made extra efforts for reducing slips and falls.	As needed	F. What percent of this change was actually caused by this program? 70%
7. Follow-up with each incident and discuss improvement or lack of improvement and plan other action.	As needed	G. What level of confidence do you place on this information? (100% = Certainty; 0% = No Confidence) 80%
8. Monitor improvement and provide adjustment when appropriate.	As needed	
Intangible Benefits: Image, risk reduction		

Example of an Action Plan

Name: Nadia Farley   Project Leader: ____   Follow-up Date: 1 May
Objective: Reduce Unplanned Absenteeism for Shift Nurses   Evaluation Period: January to April
Improvement Measure: Unplanned Absenteeism Rate   Current Performance: 8.7%   Target Performance: 3.2%

Action Steps			Analysis
1. Meet with nurses to discuss reasons for absenteeism—using problem-solving skills.	9 Jan.	√	A. What is the unit of measure? One Unplanned Absence
2. Review absenteeism records for each nurse—to search for trends and patterns.	18 Jan.	√	B. What is the value (cost) of one unit? $135.00
3. Counsel with "problem employees" to correct habits and explore opportunities for improvement.	As needed	√	C. How did you arrive at this value? Value from HR Rep
4. Conduct a brief "performance discussion" with a nurse returning to work after an unplanned absence.	As needed	√	D. How much did the measure change during the evaluation period? (monthly value) 4.3% (8.7 – 4.4%)
5. Provide recognition to all nurses who have perfect attendance.	22 Feb.	√	E. What other factors could have caused the improvement? An HR Campaign on Perfect Attendance
6. Follow-up with each discussion and discuss improvement or lack of improvement and plan other action.	As needed	√	F. What percent of this change was actually caused by this program? 70%
7. Monitor improvement and provide recognition when appropriate.	As needed	√	G. What level of confidence do you place on the preceding estimate? (100% = Certainty; 0% = No Confidence) 80%
Barriers: Time to do this, some resistance from nurses			
Intangible Benefits: Less stress, greater job satisfaction for me			Enablers: Support of HR and my director

Sample Action Plan for Teambuilding

Name: Jacquelyn Robertson Facilitator Signature:______________ Follow-Up Date: Aug 30 Objective: Reduce Internal Transfers

Evaluation Period: Feb to August Improvement Measure: Requested Transfers

Current Performance 3 per quarter Target Performance 1 per quarter

Action Steps	Analysis
1. Review reasons for transfers with HR — Feb 15 2. Sort out items under our control — Feb 20 3. Identify high risk team members — Feb 25 4. Make a plan for high risk team members — Mar 1 5. Have team sharing sessions each week to focus on complaints — Mar 1 6. Provide team feedback when necessary for members who need help — Daily 7. When a team member complains, explore and address within one day — Mar 1 8. Delegate more to the team — April 15 9. Celebrate monthly successes — April 30 10. Have three-month review and adjust as necessary — May 15	A. What is the unit of measure? 1 employee transfer B. What is the value (cost) of one unit? $7,500 C. How did you arrive at this value? HR team D. How much did the measure change during the evaluation period? (monthly value) 2 per quarter E. List the other factors that have influenced this change: Employee Engagement Initiative F. What percent of this change was actually caused by this program? 60 % G. What level of confidence do you place on the above information? (100%=Certainty and 0%=No Confidence) 80 % H. Monetary value (B x D x F x G x 4) ______________
Intangible Benefits: Teambuilding has improved	

Comments: Building trust was the key

Performance Contract Process Steps

- The participant and supervisor mutually agree on a subject for improvement.
- A specific measurable goal(s) is set.
- The participant is involved in the program.
- The contract is discussed, and plans are developed to accomplish the goals.
- After the program, the participant works on the contract against a specific deadline.
- The participant reports the results of the effort to the manager.
- The manager and participant document the results for the staff.

The Performance Contract Should Be:

- Written
- Clear to all involved
- Challenging, requiring a concentrated effort to achieve
- Achievable, something that can be achieved
- Largely under the control of the participant
- Measurable and dated

What is your experience with performance contracts?

___

___

Response Rate Exercise

Program: Leadership Workshop for Program Directors
Audience: 50 Program Directors (Two Groups)
Follow Up: Anonymous questionnaire in three months to collect application and impact data, using a five-page questionnaire

Assignment:

1. How many responses do you need?

___

___

2. How are you going to ensure you receive the appropriate number of responses?

___

___

Follow-Up Questionnaire Content Issues Checklist

- Progress with Objectives
- Action Plan Implementation
- Relevance of Program
- Perceived Value
- Use of Materials, Guides, and Technology
- Knowledge/Skill Enhancement
- Skills Used, Tasks Followed
- Changes with Work
- Linkage with Output Measures
- Other Benefits
- Barriers
- Enablers
- Management Support
- Other Solutions
- Recommendations for Target Audience
- Suggestions for Improvement
- Other Comments
- Improvements/Accomplishments*
- Improvement Linked with Program*
- Monetary Impact*
- Confidence Level*

*Optional

Translating the Program into Action

Timeframe

Roles	Before	During	After
Manager/ Significant Other	1	2	3
Participant	4	5	6
Facilitator/ Organizer	7	8	9

Which blocks are the most powerful for transferring the content into action (from Level 2 to 3)?

____

____

____

____

Who is Your Significant Other?

Identifying the significant other or significant other group for your program, project, or initiative is critical to success at Level 3, Application. Significant others greatly influence participants use of new knowledge, skills, processes, tools, procedures, or policies. For example, when an app is created, it's important to identify a significant other or a significant other group who can influence the actual use of the app. Let's examine the role of a significant other as illustrated in this article originally published in *The Wall Street Journal*. The significant other in this example may surprise you.

When Divorce Divides Parents, Apps Can Help Communication

Divorce can bring out the worst in parents who are already accustomed to bickering with each other. Even an argument about whether a kid should join a soccer team – and who will pay – can end up in a courtroom.[1]

To minimize discord and unnecessary court time, family-law judges increasingly order warring parents to use co-parenting apps. The new tools may not solve every problem, but experts say they can ease the stress on children caught in the crossfire.

Created by divorced parents, family-law attorneys, and judges who saw a need to create a better way for families to communicate, the apps can allow parents to document their compliance with the parenting plan. Some have a check-in feature so parents can prove that they picked up or handed off their children when and where they were supposed to. Others use artificial intelligence to flag messages written in an aggressive tone, reminding parents to keep their communications civil. Most have calendars that help both parents keep track of their children's activities and appointments – no matter whose day it is.

Lisa Abrams, a family-law judge in Arizona Superior Court in Pima County, said she's seeing more young parents forgoing marriage – but even they end up in court, fighting over the kids. Half of American adults were married in 2017, down 8 percentage points since 1990, a trend driven in part by couples getting married later in life, according to the U.S. Census Bureau.

She can't endorse any particular app, but said she often orders families to choose one so they can keep track of communication and children's schedules. "Even if people don't have laptops or desktops, they have phones and they're accustomed to using apps." And she sees a marked difference when families use them. "When you see parents split and they're effectively able to communicate and not put the other parent down, the kids acclimate so much better."

In this example, the significant other is the family-law judge.

[1] J. Jargon. "When Divorce Divides Parents, Apps Can Help Communication." *The Wall Street Journal*. May 1, 2019. A 11.

Questions for Discussion

For your project, program, process, or tool:

1. Identify one or more significant other groups.

2. How will you reach this significant other group?

3. What will be your hook to get them involved?

Chain of Impact Questions

Option 1: When You Do Not Have a Clue

1. How did you use the material from this project or program?
2. What influence did it have in your work? Team?
3. What specific measure was influenced? Define it.
4. What is the unit value of the measure? (Profit or Cost)
5. What is the basis of this value?
6. How much did the measure change since the project was implemented?
7. What is the frequency of the measure? Daily, weekly, monthly, etc.
8. What is the total annual value of the improvement?
9. List the other factors that could have caused this total improvement?
10. What percent of the total improvement can be attributed to this project?
11. What is your confidence estimate, expressed as a percent, for the above data? 0%= no confidence; 100% = certainty

Option 2: When the Measure Is in a Defined Set

1. To what extent did this project or program positively influence the following measures:

	Significant Influence				No Influence	
	5	4	3	2	1	N/A
Productivity	☐	☐	☐	☐	☐	☐
Sales	☐	☐	☐	☐	☐	☐
Quality	☐	☐	☐	☐	☐	☐
Cost	☐	☐	☐	☐	☐	☐
Efficiency	☐	☐	☐	☐	☐	☐
Time	☐	☐	☐	☐	☐	☐
Employee Satisfaction	☐	☐	☐	☐	☐	☐
Customer Satisfaction	☐	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐	☐

2. What other measures were positively influenced by this project?

____

____

3. Of the measures listed above, which **one** is most directly linked to the project? (Check one.)

   ☐ Productivity ☐ Sales ☐ Quality

   ☐ Cost ☐ Efficiency ☐ Time

   ☐ Employee Satisfaction ☐ Customer Satisfaction ☐ Other

4. Please define the measure above.

   ____

   ____

5. Indicate the specific unit of measurement.

   ____

   ____

6. How much did this measure improve since you began this project? ___________________

7. What is the frequency of the measure? ☐ daily ☐ weekly ☐ monthly ☐ annually

8. For this measure, what is the monetary value of improvement for one unit of this measure? Although this is difficult, please make every effort to provide the value.

   ____

   ____

9. Please state your basis for the estimated value of one unit of improvement you indicated above.

   ____

   ____

10. What is the total annual value of improvement in the measure you selected above?

 ____

 ____

11. List the other factors that have caused this total annual improvement.

 ____

 ____

12. Recognizing that other factors may have caused this improvement, estimate the percent of improvement related directly to this project of program. ________________%

13. What confidence do you place in the estimates you have provided in the prior questions? (0% is no confidence, 100% is certainty.). ________________%

Option 3: When the Measure Is Known

1. Please define the first measure connected to your project.
2. Define the unit of measure.
3. For this measure, what is the monetary value of improvement for one unit of this measure?
4. Please state your basis for the value of the unit of improvement you indicated above.
5. For the measure listed as most directly linked to the program, how much has this measure improved in performance?
6. Indicate the frequency base for the measure. Daily, weekly, monthly, quarterly.
7. What is the annual value of improvement in the measure you selected above? Multiply the increase (Question 5) by the frequency (Question 6) times the unit of value (Question 4).
8. List the other factors that could have influenced these results.
9. Recognizing that the other factors could have influenced this annual value of improvement, please estimate the percent of improvement that is attributable (or isolated) to the program. Express your estimate as a percentage out of 100%.
10. What confidence do you place in the estimates you have provided in the questions above? (100% = certainty; 0% = no confidence)

Notes:

____

____

____

____

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Fake Data

Duke University agreed to pay $112.5 million to settle claims that it knowingly included fake data in applications for federal grants that brought more than $200 million into that school and other nearby universities.[1] This put to rest a six-year dispute over alleged grant fraud with one of the largest settlements ever for such fraud under the False Claims Act. [2]

The suit alleged that the university was aware that biologist Erin Potts-Kant included fraudulent data in a several grant applications and reports. Duke University's internal investigators reviewed more than 50 grants and determined that Ms. Potts-Kant falsified or fabricated data in several grant requests and payment requests.

When collecting data for soft skills programs, the possibility of biased or fake data is always an issue. Fortunately, this will not have the same consequence as the fake data in the grants at Duke University. Still, this is a very important concern and may lead to some very disappointing or inaccurate results if the data provided by program participants is either wrong or exaggerated. Let's examine what can be done to address this concern for application and impact data collection.

Application

The actions of participants are tracked with application data. This includes detail about the extent of use, frequency of use, and success of use, along with the barriers and enablers to use. Is it possible that a participant would exaggerate or even fabricate data? Yes, it can happen; here are four precautions to take to minimize, or even eliminate, the issue altogether:

1. Have the data collected either anonymously or confidentially, if possible. Anonymous data collection is ideal at this level. Sometimes anonymity is not possible, or participants may not really believe that it is anonymous. In this case, data collection should be confidential. To accomplish this, explain to the participants who will see the data, including specific names if possible, and explain how the participants' identities are being protected.
2. Remind the participants that it is the program that is being evaluated, not their individual performance. The data being collected is only an assessment of the program's performance. That message needs to be underscored routinely throughout the process to remove the temptation to exaggerate because participants think their performance is on the line.
3. To further remove the data from a performance review, offer participants reasons for not using what they have learned. From a practical perspective, this list identifies the barriers to application. Using a forced-choice option format, the typical barriers are listed, and an individual will select the barriers that are getting in their way. Participants will rarely, if ever, claim responsibility for not using the soft skills. Although they should, they just don't because they think it's a reflection of their performance. Any attempts to hold them accountable in the form of performance review or assessment could result in

1. M. Korn. "Duke University to Settle Grant-Fraud Dispute." *The Wall Street Journal.* March 26, 2019. A3.
2. The False Claims Act (FCA), 31 U.S.C, §§ 3729-3733, 1863.

fake or biased data. This is a tradeoff. Perhaps ignoring the true reason why participants exaggerate is necessary to obtain more accurate data.

4. Remind the participants that they are the only individuals who actually know how well this program works. They are the experts on this issue. Without their input, we will never know for sure how effective the program is. We are appealing to their sense of accountability and responsibility. After all, if it's not working, it's not because of their performance.

These techniques, with some routine reinforcement, can help obtain accurate data in ample quantities to make conclusions.

Impact

It is less likely that Level 4 data (the actual impact) will be exaggerated or fabricated. After all, impact data should be found in records and databases. If the program begins with the end in mind, with clearly defined business measures, it is unlikely that participants will fabricate improvement in those measures if the improvement did not occur. This is good news. However, there are a few things we can do to ensure accuracy:

1. When asking for specific data, ask for actual amounts of data and give specifics in terms of monthly or weekly data as well. Also, ask where the data is located and how can it be accessed, leaving the possibility that it may be verified.
2. When feasible, let individuals know that there will be some audits of the data, just to make sure that everyone clearly understands the data that is needed.
3. Sometimes it is helpful to involve the participant's manager. After all, a business impact measure for a participant (referred to as a key performance indicator), often rolls up into a key performance indicator for the manager. The manager has a lot of interest in that measure. Bringing the manager into the mix, immediately eliminates any possibility of exaggerated or fabricated data.

These simple techniques help ensure that fake, biased, or exaggerated data doesn't enter the process.

Notes:

Increasing Questionnaire Response Rates

1. Provide advance communication about the questionnaire.
2. Clearly communicate the reason for the questionnaire.
3. Indicate who will see the results of the questionnaire.
4. Show how the data will be integrated with other data.
5. Keep the questionnaire simple and as brief as possible.
6. Keep questionnaire responses anonymous–or at least confidential.
7. Make it easy to respond; include a self-addressed, stamped envelope/email. Use the local manager to distribute the questionnaires, show support, and encourage response.
8. If appropriate, let the target audience know that they are part of a carefully selected sample.
9. Use one or two follow-up reminders.
10. Have the introduction letter signed by a top executive.
11. Enclose a giveaway item with the questionnaire (pen, money, etc.). Provide an incentive (or chance of incentive) for quick response.
12. Send a summary of results to target audience.
13. Distribute questionnaire to a captive audience.
14. Consider an alternative distribution channel, such as email.
15. Have a third party gather and analyze data.
16. Communicate the time limit for submitting responses.
17. Consider paying for the time it takes to complete the questionnaire.
18. Review the questionnaire at the end of the formal session.
19. Carefully select the survey sample.
20. Allow completion of the survey during work hours.
21. Add emotional appeal.
22. Design questionnaire to attract attention, with a professional format.
23. Let participants know what actions will be taken with the data.
24. Provide options to respond (paper, email, website).
25. Use a local coordinator to help distribute and collect questionnaires.
26. Frame questions so participants can respond appropriately and make the questions relevant.

Can you add to the list?

A Sample Size Table for Proportions[1]

Degree of Accuracy = + .05		Proportion of Sample Size = 0.5		Confidence Level = 95%	
Population	**Sample**	**Population**	**Sample**	**Population**	**Sample**
10	9	230	144	1,400	301
15	14	240	147	1,500	305
20	19	250	151	1,600	309
25	23	260	155	1,700	313
30	27	270	158	1,800	316
35	32	280	162	1,900	319
40	36	290	165	2,000	322
45	40	300	168	2,200	327
50	44	320	174	2,400	331
55	48	340	180	2,600	334
60	52	360	186	2,800	337
65	55	380	191	3,000	340
70	59	400	196	3,500	346
75	62	420	200	4,000	350
80	66	440	205	4,500	354
85	69	460	209	5,000	356
90	73	480	213	6,000	361
95	76	500	217	7,000	364
100	79	550	226	8,000	366
110	85	600	234	9,000	368
120	91	650	241	10,000	369
130	97	700	248	15,000	374
140	102	750	254	20,000	376
150	108	800	259	30,000	379
160	113	850	264	40,000	380
170	118	900	269	50,000	381
180	122	950	273	60,000	381
190	127	1,000	277	70,000	382
200	131	1,100	284	120,000	382
210	136	1,200	291	160,000	383
220	140	1,300	296	1,000,000	383

This table tells you the number of people you must survey to accurately represent the views of the population under study.

[1] R. Zemke/T. Kramlinger, *Figuring Things Out*,© 1982, Addison-Wesley Publishing Co., Inc., Reading, Massachusetts. Reprinted by permission of the publisher.

STEP 6

Make it Credible: Isolate the Effects of the Program

Case Study: First Bank

First Bank, a large commercial bank had experienced a significant increase in consumer loan volume for the quarter. In an executive meeting, the Chief Executive Officer asked the executive group why the volume increased.

- The executive responsible for the consumer lending started the discussion by pointing out that his loan officers were more aggressive. "They had adopted an improved sales approach. They all had sales development plans in place. We were being more aggressive."

- The marketing executive added that she thought the increase was related to a new promotional program and an increase in advertising during the period. "We’ve had some very effective ads," she remarked.

- The Chief Financial Officer thought it was the result of declining interest rates. He pointed out that interest rates fell by an average of 1% for the quarter and added, “Each time interest rates fall, consumers borrow more money.”

- The executive responsible for mergers and acquisitions felt that the change was due to a reduction in competition. “Two bank branches were closed during this quarter which had an impact on our market areas. This drove those customers over to our branches." She added, "When you have more customers you have more loan volume."

- The human resources Vice President spoke up and said that the consumer loan referral incentive plan had been slightly altered with an increase in the referral bonus to all employees who refer legitimate customers for consumer loans. This new bonus plan, in her opinion, had caused the increased consumer loan value. She concluded, “When you reward employees to bring in customers, they will bring them in . . . in greater numbers.”

- The human resource development Vice President said the Consumer Lending Seminar caused the improvement. He indicated that it had been revised and is extremely effective, with appropriate strategies to increase customer prospects. He concluded, "When you have effective training and build skills in sales, you increase loan volume."

These responses left the CEO wondering just what had caused the improvement. Was it one or all the factors? If so, how much was each?

Questions for discussion:

1. Is this situation unusual? Please explain.

   ____

   ____

2. Should the CEO drop the issue?

   ____

   ____

3. What are some approaches to resolve this dilemma?

   ____

   ____

4. What would you do?

   ____

   ____

Key Issues for Isolation/Attribution

Reality:

1. Other influences are almost always present; multiple factors generate business impact.
2. If the program effects are not isolated, no business link can be established.
3. The other factors and influences have their own protective owners.
4. Isolating the effects of the program on impact data is an achievable task.

Myths:

1. Our program is complementary to other processes; therefore, we should not attempt to isolate the effects of the program.
2. Other program leaders do not address this issue.
3. If we cannot use a research-based control group design or mathematical modeling, we should not attempt this procedure.
4. The stakeholders will understand the link to business impact measures; therefore, we do not need to attempt to isolate the effects of the program.
5. Estimates of improvement provide no value.
6. Ignore the issue; maybe the others won't think about it.

Preliminary Issues:

1. Work through the chain of impact.
2. Identify the other factors that may have caused the improvement.

Questions for Discussion

1. What has been your experience with this topic?

2. When should this issue be addressed?

3. Can this always be accomplished?

Notes:

Applications of Isolating the Effects of a Program Matching Exercise

Instructions: For each of the following situations, please indicate the method used to isolate the effects of the program. Select from these methods:

A.	Control group	D.	Participant's estimate
B.	Trend line analysis	E.	Immediate manager's estimate
C.	Mathematical Modeling	F.	Expert's estimate

Write the letter in the box to reflect the method used.

Situation **Method**

1. The Veterans Health Administration has recently implemented a new retention program to boost the retention for nurses. Just as the program was implemented, the unemployment rate increased. Both the retention program and the unemployment rate increase have driven an increase in retention. It appears that no other factors have contributed to this increase. There is a mathematical relationship between the unemployment rate and the retention increase based on historical data. This equation is used to predict the retention increase based on the changes in unemployment. This forecast is compared with actual figures to isolate the impact of the retention program.

2. Absenteeism for bus drivers in a large metropolitan area has been deteriorating for some time. An HR program was implemented to include a no-fault absenteeism policy and a change in the selection process. After the program was conducted, the absenteeism rate decreased. It appears that no other influences have contributed to this decrease. The pre-program absenteeism data are very stable, and a trend is projected in the post period to compare with the actual figures. The difference in the two showed the contribution of the project.

3. An efficiency program in a state welfare agency was designed to reduce the time to complete each case. Team leaders, the immediate managers of participants, worked very closely with them as the program was implemented. The time per case decreased three months after the program was completed. While there are other factors that may have caused the decrease, one factor was the efficiency program. The team leader was asked to indicate the percent of improvement attributed to the program. This information was used to understand the impact of the program on the case time reduced.

4. A new wellness and fitness center has caused the New Jersey State Police healthcare expenditures to decrease one year after the center was opened. Given this amount of decrease, several experts were assembled who understand why healthcare costs have changed. These individuals are asked to explain all the contributing factors and isolate the effects of the wellness and fitness center on that measure, based on their expertise. ☐

5. The Transportation Security Agency implemented a stress management program on a pilot basis. The program was designed to reduce stress. Six teams were used in the initial pilot group. A comparison group was selected using several measures: team size, the type of work, and job grades. The difference in the two groups showed the impact of the stress management program. ☐

6. In a youth employment program for young adults, the participants were asked to provide details on the jobs they had secured. They were asked to describe the use of the job search, networking, and interviewing skills. Lastly, they were asked to identify and describe the other factors that helped to secure the new job. As part of the exercise, these participants estimated the percent of job search success that was directly related to the youth employment program. ☐

Techniques to Isolate the Effects of Programs

- Use of a control group arrangement
- Trend line analysis of performance data
- Use of mathematical modeling
- Participant's estimate of impact (percent)
- Significant other's/Supervisor's estimate of impact (percent)
- Management's estimate of impact (percent)
- Use of experts/previous studies
- Calculating/estimating the impact of other factors
- Use of customer/client input

Notes:

Use of Control Groups Example: Retention Solution at the Federal Information Agency

An opportunity to participate in a master's degree program at agency expense and agency time.

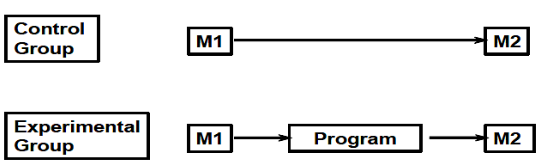
- One hundred high-potential employees chosen for program for a three-year master's program in information science
- Experimental group of one hundred were involved; another one hundred in control group were not involved
- Observed employee turnover performance of both groups during the same time
- Collected evaluation data for both groups at the same time
- Neither group is aware of the control group arrangement

How would you select the control group?

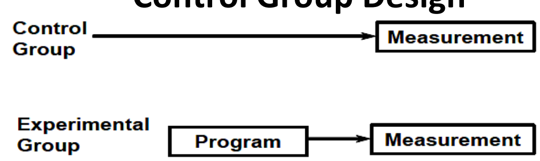
List the criteria for selecting the control group:

- ____________________
- ____________________
- ____________________
- ____________________
- ____________________
- ____________________

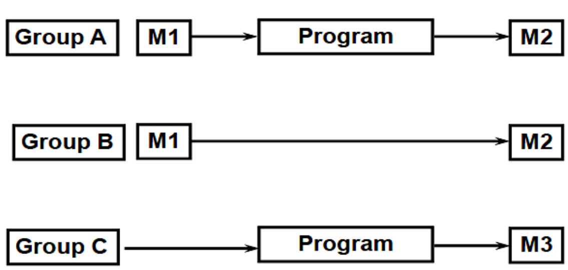
Control Group Design



Post-Test Only, Control Group Design

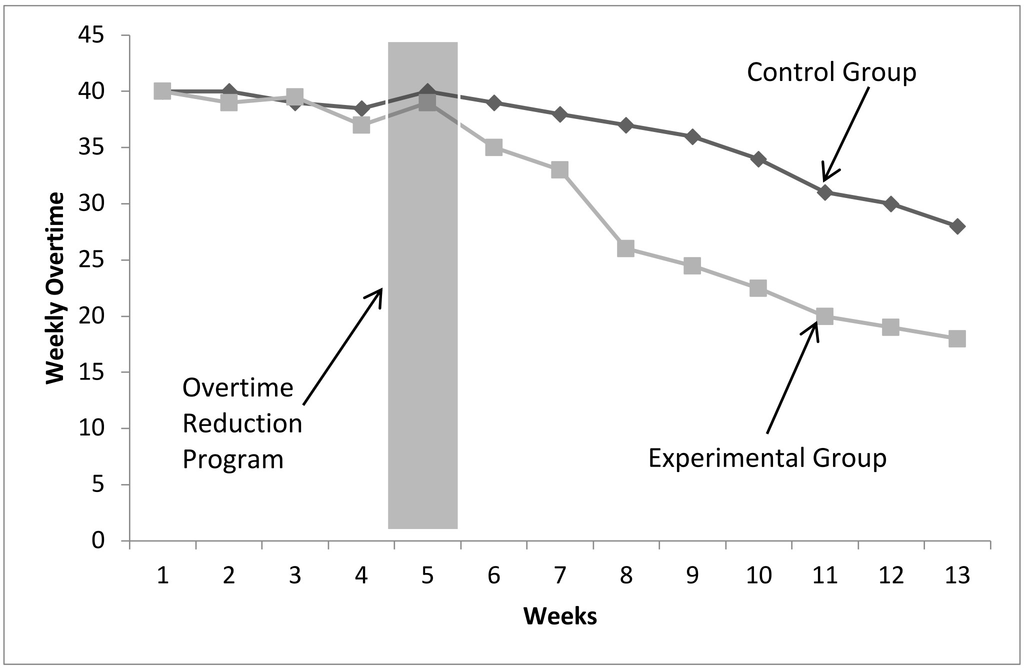


Ideal Experiment Design



Use of Control Groups Example: Nurse Overtime Reduction at the Provincial Health Authority

The Provincial Health Authority realized that nurse overtime was excessive. An overtime reduction program involving nurse managers was implemented as a solution. The program was implemented with an experimental group, and the control group did not participate in the program. Both groups are experiencing about 40 hours per week overtime, too much for these two nursing units. The criteria used to select the two groups included current performance on overtime, staffing levels, type of care, and sick time use. The control group experienced a reduction from 40 hours to 28 hours. The experimental group moved from 40 hours to 18 hours.



The improvement, connected to the overtime reduction program, is _________ hours.

Notes: ____

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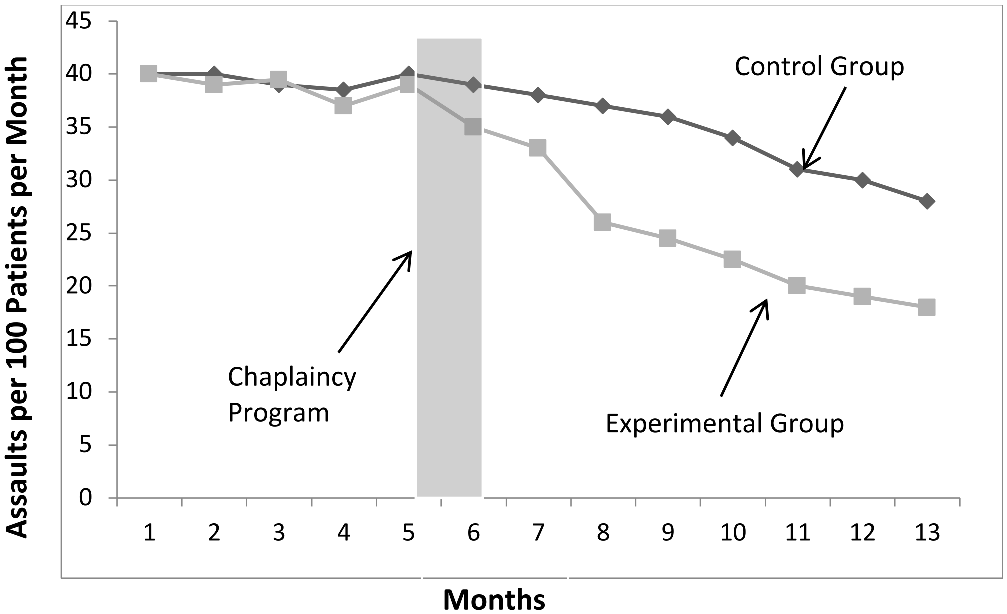
Experimental vs. Control Group Comparison for Employee Assault Reduction Program

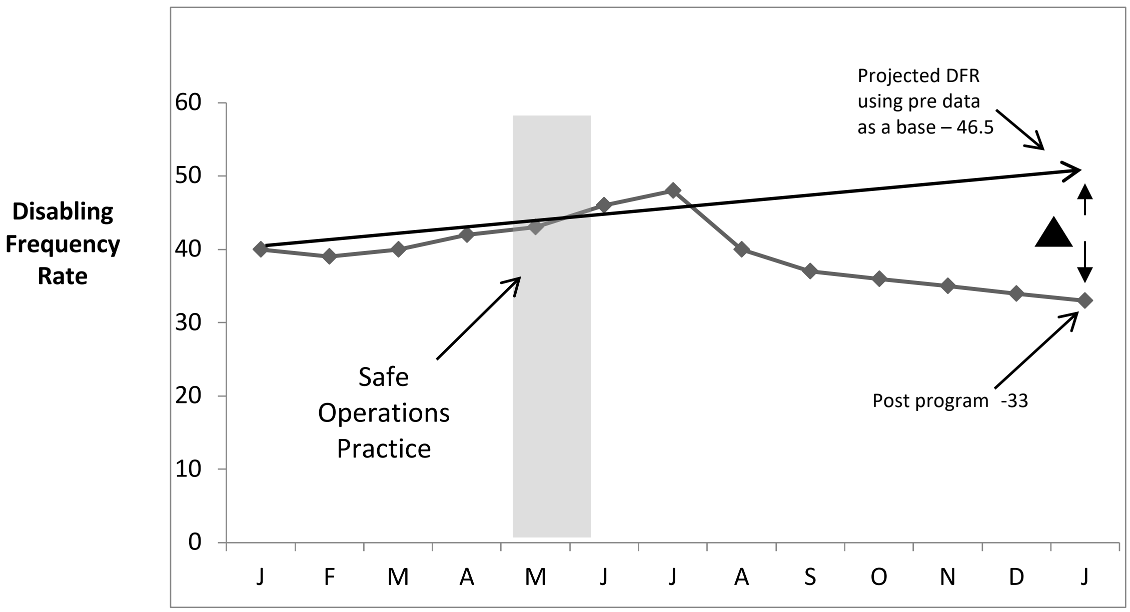


How would you select the two groups?

Case Application: Muskoka Hospital

Use of Trend Line Analysis

As part of an effort to reduce the Disabling Frequency Rate (DFR) a Safe Operations Practice (SOP) has been implemented. The vertical axis reflects the rate of disabling injury. The horizontal axis represents time in months. Data reflect conditions before and after the safe operations practice (SOP) program was implemented in May. As shown in the figure, an upward trend for the data existed prior to project implementation. However, the project apparently had an effect on the disabling frequency rate (DFR) as the trend line is much greater than the actual. Project leaders may have been tempted to measure the improvement by comparing the one-year average for the DFR prior to the project to the one-year average after the program. However, this approach understates the improvement because the measure in question is moving in the wrong direction and the SOP turns the DFR in the right direction.



Questions for Discussion

1. Approximately what improvement in the DFR has resulted from the program?

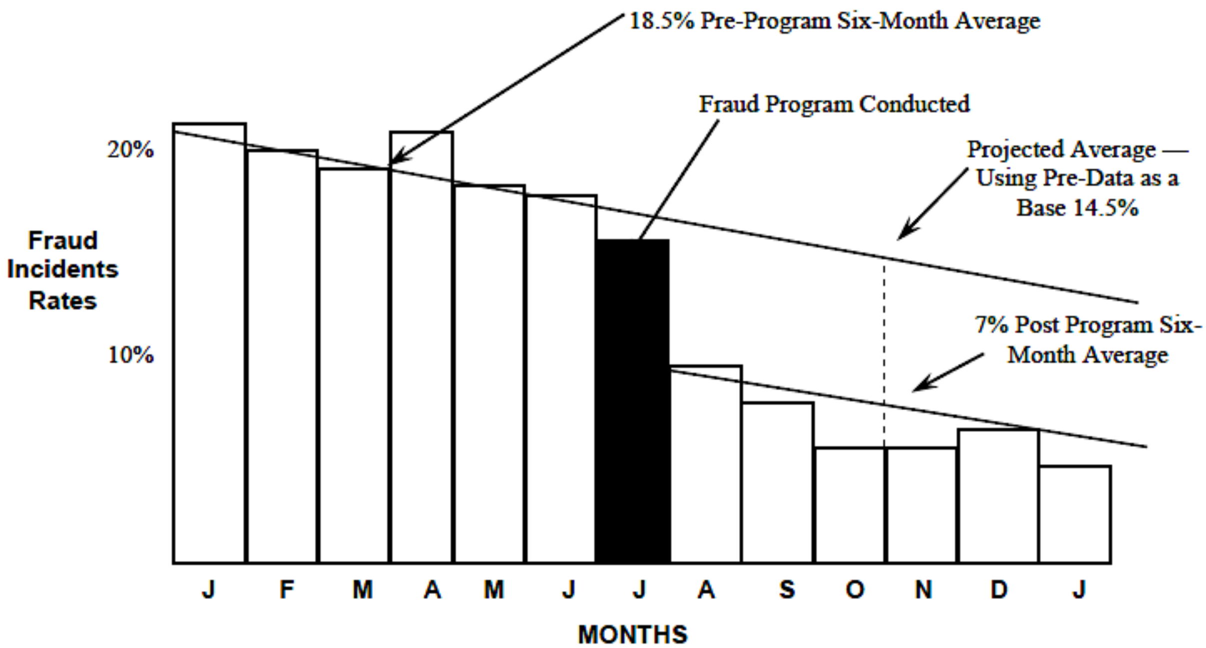
2. How reliable is this process?

3. When can this process be used?

Case Application: Environmental Compliance Department

Use of Trend Line Analysis

As part of an effort to reduce fraud with environmental compliance inspectors, a fraud program has been conducted. One measure of fraud is the fraud incidents rate, which is the percent of fraudulent actions uncovered in audits. Because of the overall emphasis in fraud for the last year, there has been a downward movement in the fraud incident rate. All were involved in the program, which was conducted in July. After the program was completed, the staff was interested in measuring the impact of the program on the reduction of fraud incidents. The chart below shows the fraud incidents rates for six months before and after the program was implemented. The trend lines show the relative trends and mid-point values both before and after the program.



Questions for Discussion

1. Approximately what improvement in fraud incident has resulted from the program?

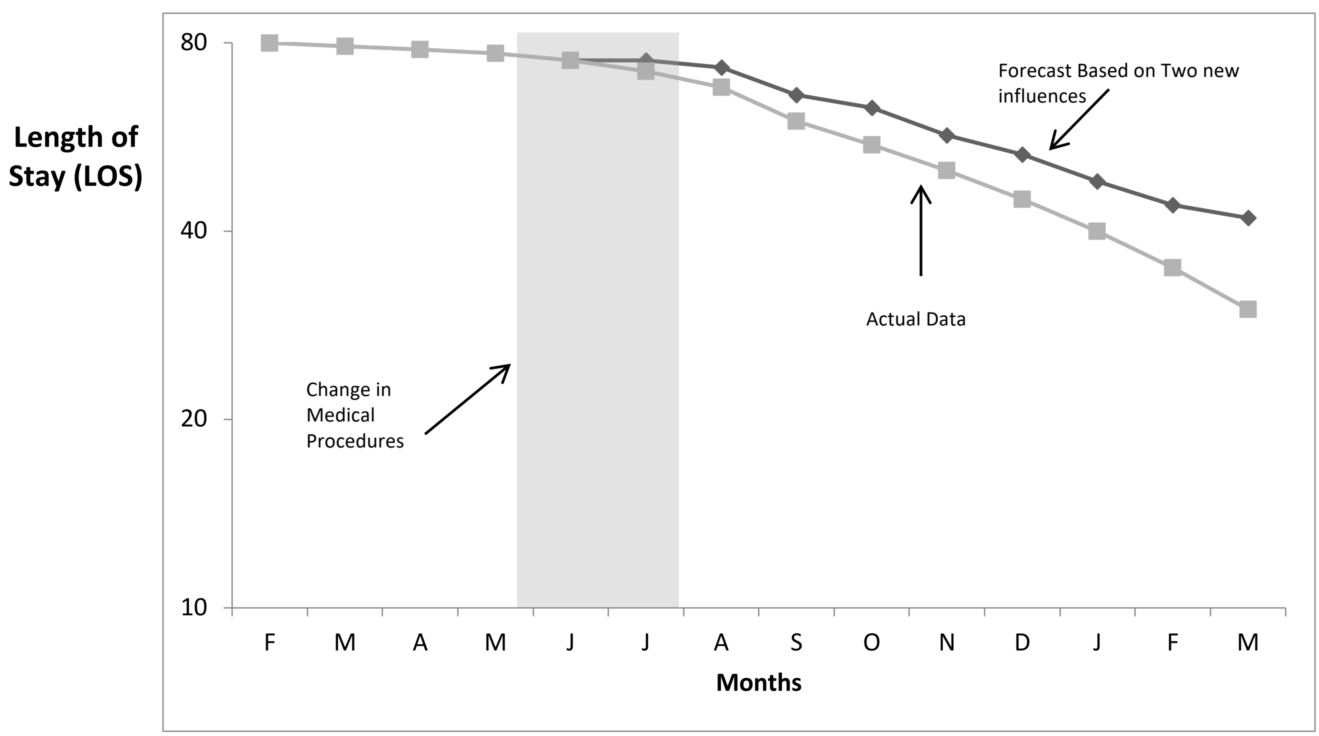
2. How reliable is this process?

3. When can this process be used?

Case Application: General Hospital

Using Mathematical Modeling

The General Hospital example will help illustrate the effect of the forecasting method. The General Hospital was focusing on decreasing length of stay. In July, a new project involved changing several procedures that made the diagnosis, treatment, and healing process faster, with various ways to recognize improvement quickly and make decisions and adjustments accordingly. All of these procedures were aimed at reducing the average length of stay. The figure below shows the length of stay prior to the change in medical procedures and the actual data shows a significant downward improvement in the 10 months since the program was implemented. However, two important changes occurred about the same time as the new project was implemented. A major provider reissued a maximum length of stay that they would reimburse for illnesses. This influence has a tendency to cause organizations to focus more intensely on getting patients discharged as quickly as possible. At the same time, the severity of the influx of patients had slightly decreased. The types of illnesses dramatically affect the length of stay. The analysts in the business process improvement department developed a forecast showing the effects of the provider reimbursement process and the change in the illnesses of the patients upon admission. They were able to develop a multiple variable analysis to forecast the LOS, as shown in the figure. The data from March show the difference in the forecasted value and the actual value. That difference represents the impact of the new medical procedures, because they were not included in the forecasted value.



Participant Estimates Case Application: Community Hospital

Healthcare professional injuries in a community hospital had been a persistent problem. In an effort to decrease injuries, the community hospital implemented three new approaches to correct it. One approach was to offer an employee fitness program as the wellness team indicated that injuries are caused by a low fitness level in all employees. A second approach was to implement an improved floor-washing schedule, as most of the injuries were due to slips and falls. A third solution was to provide a workplace safety seminar to all employees, as it had been several years since this was updated. With these three programs in place, injuries decreased from an average of 16 per month to an average of 9 per month in six months.

With these programs implemented, it was important to understand the effects of each of these processes. In a focus group arrangement, a sample of healthcare professionals were asked to allocate the percentage that each of these programs averted injuries. It was concluded that the healthcare professionals were the most credible inputs to sort out the individual effects. They were involved in the fitness program. Also, they were participants in the safety seminar. After reviewing the purpose of the meeting and the ground rules of the focus group, healthcare professionals were asked to indicate whether other factors could have caused the decrease in addition to the three processes. They mentioned only a few other processes. The table below shows the average of all responses. In the example, they allocate 31% of the improvement to the fitness program and they have an average level of confidence in the estimate of 82%. The target audience is 500 healthcare professionals.

Fact: Injuries reduced from 16 to 9 per month, per work unit. Target Audience: 500 healthcare professionals in 20 work units			
Factor That Influenced Improvement	**Percentage of Improvement Caused by**	**Confidence Expressed as a Percentage**	**Adjusted Percentage of Improvement Caused by**
Fitness Program	31%	82%	____
Safety Seminar	22	71	____
Improved Floor Cleaning	28	89	____
Other	19	62	____
Total	**100%**		

What is the portion of the improvement is attributed to the fitness program?

____

____

____

____

Use of Estimates

Exercise: Economic Empowerment of Women in Zimbabwe

One of the Development Results Goals for Zimbabwe is the increased economic empowerment of women, especially of those who are most excluded. One program supporting this goal works to allow women to access microfinance loans. Working with the Women Development Savings and Credit Union (WDSCU) created by UN Women, the application outcome is to increase the accessibility of affordable microfinance loans to rural women. After this program was implemented, women applied, and loans were approved for another 420 women. This amount is an increase over the preprogram level. At the same time, there were several other factors that increased the amount of loans. One factor was the changing attitudes of microfinance institutions, as they realize these types of loans are not necessarily high-risk and may have a better re-payment history than other types of loans. In addition, there is one other agency working on the same issues, pressuring microfinance institutions to make loans available to women. Finally, the government is also applying some pressure on institutions operating within the country to make loans available. In essence, all four factors have led to improving access to loans and the additional 420 loan approvals.

The program director assembled a group of microfinance lenders who were deemed experts in understanding the effect of all four factors in obtaining access to the loans. A neutral facilitator assisted a group of ten lenders in sorting out the cause and effect of each factor, following these steps:

- Describe the task.
- Explain why the information was needed and how it would be used.
- Ask lenders to identify any other factors that may have contributed to the increase in access.
- Have lenders discuss the link between each factor and the specific measure.
- Provided lenders with any additional information needed to estimate the contribution of each factor.
- Obtained the actual estimate of the contribution of each factor. The total had to be 100%.
- Obtained the confidence level from each lender for the estimate for each factor (100% = certainty; 0% = no confidence).

The results from this group are averaged and shown in the table below.

Δ= 420 Approved Loans Microfinance Loans for Women

Contributing Factors	Average Impact on Results	Average Confidence Level
UN Program	39%	81%
Changing Attitudes of MF Institutions	11%	77%
Competing Program (NGO)	33%	60%
Pressure from Government	12%	72%
Other	5%	85%
	100%	

The amount attributed to the UN program was determined by multiplying the percent for the program factor times the confidence percentage. This, in effect, shows the impact of the program.

Questions for Discussion

1. Given the above information, calculate the amount of loans approved caused by the UN Initiative.

2. Discuss the credibility of this approach.

3. What could be done to improve this process?

Case Study: National Bank

National Bank is on a carefully planned growth pattern through acquisitions of smaller banks. One recent acquisition was quite large, representing almost $1 billion in total assets. After the acquisition, all the record keeping systems and performance monitoring processes were implemented at all bank locations. Each branch in the network has a scorecard where performance is tracked using several measures, such as new accounts, total deposits, and growth by specific products.

National Bank has an excellent reputation of having a strong sales culture. Through a competency-based learning program, all branch personnel are taught how to aggressively pursue new customers and cross-sell to existing customers in a variety of product lines. The bank uses sales training, coupled with incentives and management reinforcement, to ensure that ambitious sales goals are met. Six months after the performance monitoring systems were in place in the new acquisition, management was ready to implement the sales culture, including the training program for all branch personnel.

Recognizing that several factors have influenced scorecard results, management decided to let the program participants estimate the impact of the learning program. The following factors were initially identified by branch management as having a significant influence on sales output: 1) the sales training program, 2) incentive systems, 3) goal setting/management emphasis, 4) marketing. Management tracked the improvements by product category, after the program was implemented. The scorecard results by product were impressive.

The branch managers in the target metro area were asked to secure an estimate of the percent of improvement that could be attributed to each of the factors above. All branch employees provided input in a focus group meeting that was facilitated by the manager. In the carefully organized meeting, the branch manager:

- Described the task.
- Explained why the information was needed and how it would be used.
- Asked employees to identify any other factors that may have contributed to the increase.
- Had employees discuss the link between each factor and the specific output measure.
- Provided employees with any additional information needed to estimate the contribution of each factor.
- Obtained the actual estimate of the contribution of each factor. The total had to be 100%.
- Obtained the confidence level from each employee for the estimate for each factor (100% = certainty; 0% = no confidence).

This exercise determined how much of the improvement would be influenced by the different factors. For example, the following information was collected from one branch, for one business measure:

Monthly Increase in Credit Card Accounts: 175

Contributing Factors	**Average Impact on Results**	**Average Confidence Level**
Sales Training Program	32%	83%
Incentive Systems	41%	87%
Goal Setting/ Management Emphasis	14%	62%
Marketing	11%	75%
Other _________________	2%	91%
	100%	

The amount attributed to the sales training program was determined by multiplying the percent for the sales training program factor times the total amount of improvement for each product line. This, in effect, shows the impact of the program for that product line. The number is then adjusted by the confidence percentage.

Questions for Discussion

1. What is the number of new credit card accounts per month that can be attributed to the sales training program?

____

____

2. Is this a realistic process to estimate of the impact of the program on the increased sales?

____

____

3. How could this process be improved?

____

____

Steps to Measure Attribution Using Estimates

If you find that a measure/indicator has improved and you want to know how much your program influenced the improvement, use these steps:

1. Identify the sources of data who know best about the improvement and what may have caused it (most credible source/s).
2. Decide on the most appropriate data collection method (self-administered questionnaire, interview, focus group, etc.).
3. Ask:
   a) Given the amount of improvement in this measure, what are the factors that you believe have contributed to the improvement (you can leave this question open or provide a list of potential factors based on what you know then let the source add to the list)?
   b) As a percentage how much of the improvement is due to _______ program?
   c) On a scale of 0% to 100%, how confident are you that your estimate is accurate?
4. Analyze your data:

A	B	C	D
Start with Fact ____ Measure Improved	**Estimated Contribution of the program**	**Error Adjustment (Confidence Estimate)**	**Adjusted Contribution (AxBxC)**
Improvement	___%	___%	Your Program's Value Contribution!

The Wisdom of Crowds*

One day in the fall of 1906, British scientist Francis Galton left his home in the town of Plymouth and headed for a country fair. Galton was eighty-five years old and beginning to feel his age, but he was still brimming with the curiosity that had won him renown–and notoriety – for his work on statistics and the science of heredity. On that particular day, what Galton was curious about was livestock.

Galton's destination was the annual West of England Fat Stock and Poultry Exhibition, a regional fair where the local farmers and townspeople gathered to appraise the quality of each other's cattle, sheep, chickens, horses, and pigs. Wandering through rows of stalls examining workhorses and prize hogs may have seemed a strange way for a scientist to spend an afternoon, but there was certain logic to it. Galton was a man obsessed with two things: the measurement of physical and mental qualities and breeding. And what, after all, is a livestock show but a big showcase for the effects of good and bad breeding?

Breeding mattered to Galton because he believed that only a very few people had the characteristics necessary to keep societies healthy. He had devoted much of his career to measuring those characteristics, in fact, in order to prove that the vast majority of people did not have them. His experiments left him with little faith in the intelligence of the average person, "the stupidity and wrong-headedness of many men and women being so great as to be scarcely credible." Galton believed, "Only if power and control stayed in the hands of the select, well-bred few, could a society remain healthy and strong."

As he walked through the exhibition that day, Galton came across a weight-judging competition. A fat ox had been selected and placed on display, and members of a gathering crowd were lining up to place wagers on what the weight of the ox would be after it had been slaughtered and dressed. For sixpence, an individual could buy a stamped and numbered ticket, fill in their name, occupation, address, and estimate. The best guesses would receive prizes.

Eight hundred people tried their luck. They were a diverse lot. Many of them were butchers and farmers, who were presumably expert at judging the weight of livestock, but there were also quite a few people who had no insider knowledge of cattle. "Many non-experts competed," Galton wrote later in the scientific journal Nature. "The average competitor was probably as well fitted for making a just estimate of the dressed weight of the ox, as an average voter is of judging the merits of most political issues on which he votes."

Galton was interested in figuring out what the "average voter" was capable of because he wanted to prove that the average voter was capable of very little. So, he turned the competition into an impromptu experiment. When the contest was over, and the prizes had been awarded, Galton borrowed the tickets from the organizers and ran a series of statistical tests on them. Galton arranged the guesses (totaling 787–13 were discarded because they were illegible) in order from highest to lowest and graphed them to see if they would form a bell curve. Then, among other things, he added all the contestants' estimates, and calculated the mean of the group's guesses. That number represented, you could say, the collective wisdom of the Plymouth crowd. If the crowd were a single person, that was how much it would have guessed the ox weighed.

Galton undoubtedly thought that the average guess of the group would be way off the mark. After all, mix a few very smart people with some mediocre people and a lot of dumb people, and it seems likely you'd end up with a dumb answer. But Galton was wrong. The crowd had guessed that the ox, after it had been slaughtered and dressed, would weigh 1,197 pounds. After it had been slaughtered and dressed, the ox weighed 1,198 pounds. In other words, the crowd's judgment was essentially perfect. The "experts" were not close. Perhaps breeding didn't mean so much after all. Galton wrote later: "The result seems more credible to the trustworthiness of a democratic judgment than it might have been expected." That was, to say the least, an understatement.

What Francis Galton stumbled on that day in Plymouth was the simple, but powerful, truth: under the right circumstances, groups are remarkably intelligent, and are often smarter than the smartest people in them. Groups do not need to be dominated by exceptionally intelligent people in order to be smart. Even if most of the people within a group are not especially well-informed or rational, they can still reach a collectively wise decision.

* Taken from *The Wisdom of Crowds: Why the Many Are Smarter Than the Few and How Collective Wisdom Shapes Business, Economics, Societies and Nations*. James Surowicki. New York. Doubleday, 2004.

Questions for Discussion

1. What implications does this concept have in evaluation?

___

___

2. Can you cite other examples?

___

___

Notes: ___

___

___

___

Isolating the Effects

Steps in Determining Which Method(s) to Use

Example used: A program was implemented to address a quality issue (waste due to errors). Follow these steps on the left side of the table for each L-4 measure. See the example on the right side of the table.

Step	Example
Step 1. Define the measure	**Step 1.** Quality (waste due to errors)
Step 2. What time frame should be used to monitor progress and collect the data to determine any change to the measure:	**Step 2.** Collect baseline data for three to four-month period prior to solution. Collect improvement data at four months after implementation
Step 3. During the established time frame, what are the internal and external factors (other than the solution) that will influence the measure.	**Step 3.** Change in technology. Change in process. Change in staffing. Supervisor or team leader provides on-the-job training.
Step 4. Which method(s) is most feasible to use? Control Group, Trend Line, Other Sources. If Control Group or Trend Line cannot be used, then who/what are the best sources to provide data or estimates that address changes in the measure? Who is in the best position to know about influences?	**Step 4.** Is Control Group possible? If so, establish control criteria. If not, is Trend Analysis feasible? If not, credible sources may be participants, participants' supervisor, and quality supervisor. If you are using estimates from participants or others, determine how you will structure the isolation question.
Step 5. Select the isolation method(s) to be used to determine the effects of the influencing factors:	**Step 5.** Select the most credible method(s) that can be accomplished in the performance environment.

Select the Method

When choosing among them, the following factors should be considered:

- Feasibility of the method
- Accuracy associated with the method
- Credibility of the method with the target audience
- Specific cost (time) to implement the method
- Amount of disruption in normal work activities resulting from the method's implementation
- Participant, staff, and management time required for the method

Credibility of Data

Rank

A total of 33.3% of all food produced in the world gets wasted, amounting to a loss of $750 billion a year.
(Source: UN Food Agency)

Smoking costs the USA $130 billion a year in shortened working lives and additional healthcare spending.
(Source: U.S. Treasury Department. Reported in the Wall Street Journal)

Pharmaceutical Firm in Ireland receives -42% ROI (negative) in a management training program.
(Source: ROI at Work, ASTD, Jack and Patti Phillips)

Alcohol related problems cost the USA employers $27 billion a year in productivity losses alone.
(Source: National Institute for Alcoholism and Alcohol Abuse)

Annual cost of absenteeism and diminished productivity resulting from employee depression is $23.8 billion.
(Source: MIT study reported in Nation's Business)

The annual value of the market for wildlife trafficking-the second largest illegal trade in the world after drugs- is $10 billion.
(Source: US Department of State)

Presenteeism (working while sick) is costing employers $15 billion a year.
(Source: NBC Today Show)

Questions for Discussion

1. Why are these items credible or not credible?

2. List all the factors that influence the credibility of data.

3. Why are we uncomfortable using estimates in our programs?

Credibility of Outcome Data is Influenced by the:

- Reputation of the source of the data
- Reputation of the source of the study
- Motives of the researchers
- Personal bias of audience
- Methodology of the study
- Assumptions made in the analysis
- Realism of the outcome data
- Type of data
- Scope of analysis

Notes:

STEP 7

Make it Credible: Convert Data to Monetary Values

Case Study: How Much Does Crime Cost?

Burglary, murder, identity theft—all crimes have costs for victims and society. The Department of Justice reported that federal, state, and local governments spent more than $280 billion in 2012 on criminal justice, including police protection, the court system, and prisons.

However, there are many other costs that researchers and evaluators consider when estimating the total cost of crime in the United States. These can include tangible costs like replacing damaged property, and intangible costs like victims' pain and suffering.[1]

For a police force, evaluating programs to reduce crime will need a standard value for major crimes. To calculate the values would require too much time and effort. Searching the Internet for a value during a study may produce a value that may not be credible or accepted by key stakeholders. Instead, the evaluation team needs to locate a credible source (the most credible source) and review it for accuracy, credibility, and lack of bias. For some, it's the RAND Corporation.

The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.

Existing high-quality research on the costs of crime and the effectiveness of police demonstrates that public investment in police can generate substantial social returns. A RAND study from the Center on Quality Policing, *Hidden in Plain Sight: What Cost-of-Crime Research Can Tell Us About Investing in Police*, shows how this research can be used to better understand the returns on investments in police.[2]

This study produced values for the cost of crime when considering all the tangibles costs.

Crime Type	Cost Per Crime
Murder	$8,649,216
Rape	$217,866
Robbery	$67,277
Aggravated Assault	$87,238
Burglary	$13,096
Larceny	$2,139
Motor Vehicle Theft	$9,079

Although these costs can be debated, the key is to secure an accepted value as a standard value in advance of conducting a particular study.

[1] Watch Blog: Following the Federal Dollar. U.S. Government Accountability Office. "How Much Does Crime Cost?" November 29, 2017. https://blog.gao.gov/2017/11/29/how-much-does-crime-cost/.
[2] Cost of Crime Calculator. RAND Corporation. https://www.rand.org/jie/justice-policy/centers/quality-policing/cost-of-crime.html.

Questions for Discussion

1. Are these costs credible? Explain.

2. Could these costs be easily calculated? Explain how this would be accomplished.

3. Would these costs vary from city to city? From country to country? Explain.

4. How could you use these costs? Explain.

Examples of Hard Data

OUTPUT	TIME
Citizens Vaccinated Graduation Rate Placement Rate Units Produced Income Increased Items Assembled Money Collected Licenses Issued New Accounts Generated Forms Processed Loans Approved Inventory Turnover Criminals Prosecuted Inspections Made Applications Processed Patients X-rayed Students Graduated Permits Issued Projects Completed Jobs Secured Productivity Patients Discharged Criminals Captured Shipments **COSTS** Budget Variances Unit Costs Costs by Account Variable Costs Fixed Costs Overhead Cost Operating Costs Program Cost Savings Accident Costs Program Costs Incarceration Costs Shelter Costs Treatment Costs Participant Costs Cost Per Day	Length of Stay Cycle Time Equipment Downtime Overtime On-Time Shipments Project Time Processing Time Supervisory Time Time to Proficiency Time to Graduate Meeting Schedules Repair Time Time to Replace Work Stoppages Response Time Late Times Lost Time Days Wait Time **QUALITY** Readmissions Failure Rates Dropout Rates Scrap Waste Rejects Error Rates Rework Required Complications Shortages Product Defects Deviations from Standard Product Failures Inventory Adjustments Infections Incidents Compliance Discrepancies Agency Fines Accidents Crime Rate

Characteristics of Hard Data

- Objectively based
- Easy to measure and quantify
- Relatively easy to assign monetary values
- Common measures of organizational performance
- Very credible with management

Examples of Soft Data

LEADERSHIP	CLIENT SERVICE
Teamwork Collaborations Networking Communication Alliances Decisiveness Caring Compassion	Client Complaints Client Satisfaction Client Dissatisfaction Client Impressions Client Loyalty Client Retention Client Value Clients Lost
WORK CLIMATE/SATISFACTION	**EMPLOYEE DEVELOPMENT/ ADVANCEMENT**
Grievances Discrimination Charges Employee Complaints Job Satisfaction Organization Commitment Employee Engagement Employee Loyalty Intent to Leave Stress	Promotions Capability Intellectual Capital Programs Completed Transfers Performance Appraisal Ratings Readiness Development Assignments
INITIATIVE/INNOVATION	**IMAGE/REPUTATION**
Creativity New Ideas Suggestions Trademarks Copyrights and Patents Process Improvements Partnerships	Brand Awareness Reputation Impressions Social Responsibility Environmental Friendliness Social Consciousness Diversity/Inclusiveness External Awards

Characteristics of Soft Data

- Subjectively based in many cases
- Difficult to measure and quantify, directly
- Difficult to assign monetary values
- Less credible as a performance measure
- Usually behaviorally oriented

Notes:

Methods of Converting Data to Monetary Values

- Standard values
  - Converting output to (profit/savings)
  - Converting the cost of quality
  - Converting employee's time (using compensation)
- Using historical costs/savings.
- Using internal and external experts.
- Using data from external databases/studies.
- Linking with other measures.
- Using participants' estimates.
- Using supervisors' and managers' estimates.
- Using staff estimates.

Which methods will work best in your organization? Pair with a partner and discuss the issues you face in converting data for your performance solutions. Log your concerns and how you will address them.

Think About a Unit of Measure

- One incident
- One homicide
- One student placed
- One patient discharged
- One hour of system downtime
- One day of incarceration
- One incident of AIDS
- One sexual assault
- One microfinance loan approved
- One accident
- One new job
- One voluntary turnover
- One infant death
- One citizen complaint about police
- One medication error
- One infection

Applications of Converting Data to Money: Matching Exercise

Instructions: For each of the following situations, please indicate the method used to convert data to money. Select from these methods.

A. Profit/savings from output (standard value)
B. Cost of quality (standard value)
C. Employee time as compensation (standard value)
D. Historical costs/savings from records
E. Expert input
F. External database
G. Linking with other measures
H. Participant estimation
I. Management estimation
J. Estimation from staff

Write the letter in the box to reflect the method used.

Situation	Method
1. The Veteran's Administration was experiencing a high turnover rate of nurses. A new program was designed to reduce this turnover. To obtain a value of one voluntary turnover, the internet was used to find a study in healthcare that showed the average cost (fully loaded) of replacing a nurse. This number, expressed as a percent of salary, was used in the calculation.	☐
2. A new program for the shipping team at a disaster relief agency was designed to reduce the number of packaging errors. This error occurs when a package of relief supplies is damaged in transit and has to be replaced. The quality office in Brussels had previously developed the standard cost for a packaging error and distributed it throughout the agency. This amount was used to develop the total monetary value for error reduction.	☐
3. Mid-level managers at a Federal Procurement Agency were involved in a time management program designed to help managers save time. Each manager estimated the number of hours saved each week directly attributable to this program. The value used for each hour saved was the total annual salary for those managers adjusted for employee benefits and calculated on an hourly basis.	☐
4. An Australian government agency was implementing a new program designed to reduce the number of stress claims for employees. The employees who worked with angry and upset citizens were suffering from extreme stress on the job and were filing claims. To obtain the monetary value for a stress claim, the medical and health staff provided an average value for one claim based on their expertise of managing stress claims for several years.	☐
5. A new call center program at an infectious disease center was designed to reduce the number of calls that were escalated to the next level of management. The individuals involved in the program were the immediate supervisors of the employees taking the calls. To determine the cost of a call escalation, the participants (supervisors) estimated the cost attached to each of these calls.	☐

Instructions: For each of the following situations, please indicate the method used to convert data to money. Select from these methods.

A. Profit/savings from output (standard value)
B. Cost of quality (standard value)
C. Employee time as compensation (standard value)
D. Historical costs/savings from records
E. Expert input
F. External database
G. Linking with other measures
H. Participant estimation
I. Management estimation
J. Estimation from staff

Write the letter in the box to reflect the method used.

6. The New Jersey Police Department was implementing a new ethics program for all employees. While there were several outcomes from this program, one measure in particular was expense violations. To obtain the average cost of an expense account violation, all of the violations for a six-month period were taken directly from the records and divided by the total violations. ☐
7. Employee engagement data are collected for the Danish Postal Service. A new program was designed to improve engagement scores. To place a value on a change in engagement score, the staff examined the correlations between engagement scores and employee turnover in different job groups. This correlation analysis is part of the human capital management system. As engagement scores improved, voluntary turnover decreased. The corresponding cost savings of the turnover reduction was used as the value for changes in the engagement score. ☐
8. A city transportation company was interested in reducing absenteeism. A solution was implemented and the cost of one absence was needed for the monetary impact. The staff member who conducted the study estimated the cost to be $200 per day. ☐
9. A police department was anxious to reduce the number of citizen complaints. A new project was implemented, and the cost of a complaint was needed. A readily available value could not be located. To obtain the cost of one complaint, the chief of police estimated the average cost of one complaint. ☐
10. A charity implemented an advanced negotiation program for fundraisers where the fundraisers increased revenue from new and existing donors who were motivated to provide donations. The outcome of the program was increased funds for specific projects. The added monetary value was a specific percentage of the donation, which could be used for the charity’s program. This was considered to be a standard value for the organization. ☐

Job Aid: Calculating the Value of an Improvement

In order to convert data to a monetary value, the following steps should be taken:

Step 1: Define and Focus on a Unit of Measure
What measure is the program influencing, i.e. increase in productivity, decrease in crime, time savings, etc.?

____

____

____

Step 2: Determine the Value of Each Unit (V)
What is the value of one unit of the measure, i.e. one unit of productivity, one specific type of crime, one hour of time savings, etc.?

____

____

____

Step 3: Calculate the Change in Performance (Δ P)
How much did the measure change during the reporting period?

____

____

____

Step 4: Determine the Annual Amount of Change in Performance (A Δ P)

____

____

____

Step 5: Calculate the Total Annual Value of the Improvement (A Δ P x V)
The value of one unit of improvement multiplied by the amount of annual change during the reporting period equals the total annual monetary value of the improvement.

____

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____

ROI Application Exercise: Leadership 101

You have been asked to calculate the ROI from action plans used in a leadership program. The plans are being collected and the results analyzed four months after the training is completed. Most of the plans have been received, analyzed, isolated, and annualized. The results from 28 participants and the cost of the program for the 30 participants are presented below.

You must analyze the remaining two plans, "Medicine Gelatin Manager" and "Bill Burgess," and determine the benefits and calculate the ROI from the results of all 30 participants.

- 30 participants completed the program and were asked to complete action plans
- Data from 18 participants has been analyzed, isolated, and annualized; total monetary benefit influenced by the training is $54,109
- 10 participants did not provide data
- Two additional action plans remain to be analyzed:
  - Medicine Gelatin Manager (See last pages of exercise)
  - Bill Burgess (See last pages of exercise)

Document your results here

Benefits from the Leadership Program

	Your Answer	Actual Answer
Medicine Gelatin Manager	$	$
Bill Burgess	$	$
18 other participants (isolated and annualized)	$ 54,109	$ 54,109
10 other participants	$	$
Total Benefits from Leadership Program	$	$

Total Loaded Costs of Leadership Program $60,000

Your ROI Calculation: ROI = _____% ROI = _____%

Level 4 and 5 Program/Project Action Plan
EXAMPLE-QUALITY IMPROVEMENT

Part I - Action Plan for the *Leadership 101* **Program/Project**

Name: *Medicine Gelatin Manager* **Instructor Signature:** ____________ **Follow-up Date:** ____________

Objective: *Elimination of Gel Waste* **Evaluation Period:** *June 1* **to** *October 1*

Improvement Measure: *Quality* **Current Performance:** *8,000 kg's waste monthly* **Target Performance:** *Reduce waste by 80%*

SPECIFIC STEPS: ***I will do this …***	**END RESULT:** ***So that …***
1. *Take a more active role in daily gelatin schedule to ensure the manufacture and processing control of gelatin quantities.*	1. *Better control of gelatin production on a daily basis. This will eliminate the making of excess gelatin which could be waste.*
2. *Inform supervisors and technicians on the value of gelatin and make them aware of waste.*	2. *Charts/graphs with dollar values of waste will be provided to give awareness and understanding of the value of waste.*
3. *Be proactive to gelatin issues before they become a problem.*	3. *Able to make gelatin for encapsulation lines and making better decisions on the amounts.*
4. *Constantly monitor hours of encapsulation lines on all shifts to reduce downtime and eliminate the possibility of leftover batches.*	4. *Eliminate the excess manufacturing of gelatin mass and the probability of leftover medicine batches.*
5 *Provide constant feedback to all in the department including encaps machine operators.*	5. *Elimination of unnecessary gelatin mass waste.*

EXPECTED INTANGIBLE BENEFITS

Gel mass will decrease to a minimum over time, which will contribute to great financial gains for our company (material variance). This will put dollars toward the bottom line..

Level 4 and 5 Program/Project Action Plan
EXAMPLE-QUALITY IMPROVEMENT (continued)

Part II - Action Plan for the ***Leadership 101*** **Program/Project**

Name: *Medicine Gelatin Manager* **Objective:** *Elimination of Gel Waste*

Improvement Measure: *Quality* **Current Performance:** *8,000 kg's waste monthly* **Target Performance:** *Reduce waste by 80%*

ANALYSIS

A. What is the unit of measure? *Waste reduction* Does this measure reflect your performance alone? Yes ☐ No ☑
If not, how many employees are represented in the measure? *32*

B. What is the value (cost) of one unit? *$ 3.60 per kilogram of gelatin mass*

C. How did you arrive at this value? *This is the cost of raw materials and is the value we use for waste.*

D. How much did this measure change during the last month of the evaluation period compared to the average before the training program? (monthly value). *Currently 2,000 kg's monthly waste*

Please explain the basis of this change and what you/your team did to cause it.
6,000 kilograms of waste eliminated. Reduction in machines from 19 to 12 created additional savings, but did not calculate. Gains in machine hours (efficiency) in Encaps Dept. More awareness of gel mass waste and its costs. Key contributing factors were problem solving skills, communicating with my supervisors and technicians and their willing response, and my ability to manage the results.

E. What percentage of this change was caused by the application of methods from *Leadership 101* (0% to 100%) *20 %*

F. What level of confidence do you place on the above information? (100%=Certainty and 0%=No Confidence) *70 %*

G. If your measure is time-savings, what percentage of the time saved was actually applied toward productive tasks? (0% to 100%) *NA %*

ACTUAL INTANGIBLE BENEFITS

Gelatin mass waste has been a problem for our company since start-up, with low efficiency in the Encapsulation Department and the mistakes made in the Gel Department, the waste was out of control. In the past few months efficiency has increased and the Gel Department has stabilized and as a result waste is down considerably.

Level 4 and 5 Program/Project Action Plan
EXAMPLE-TIME SAVINGS

Part I - Action Plan for the *Leadership 101* **Training Program/Project**

Name: *Bill Burgess, Senior Engineer* **Instructor Signature:** *Amber Locke* **Follow-up Date:** ____

Objective: *Enable my team to sustain continuous improvement by end of next QTR.* **Evaluation Period:** *Jun 1* **to** *Oct 1*

Improvement Measure: *Time savings* **Current Performance:** *32 hours unproductive time per month* **Target Performance:** *Zero unproductive hours*

SPECIFIC STEPS: *I will do this …*	END RESULT: *So that …*
1. *Convince the technicians on my team that I am serious about continuous improvement.*	1. *Team members understand my expectations and intentions*
2. *Get my team involved in identifying key result areas and related improvement needs and focus on improving these.*	2. *Team members become committed and feel empowered to act.*
3. *Provide coaching to team members to help them break paradigms.*	3. *Team members see new approaches, possibilities, solutions.*
4. *Consistently apply the principle of deferred judgment when team members come up with new ideas.*	4. *Ideas get a fair hearing & team members get an opportunity to support them and find ways to demonstrate their practicality.*
5. *Apply the 5 step approach to handling mistakes.*	5. *Support, risk taking, learning accountability & growth occurs*
6. *Teach my team to understand and diagnose before prescribing*	6. *Team members minimize errors and rework.*
7. *Continuously seek ways to inspire ownership and involvement*	7. *Get team members excited about their achievements.*
8. *Observe & think about ways team responds to my behavior and approach. Document improvements: time savings, quality improvement, output improvement, cost savings, and other beneficial changes. Measure the results and objectively provide feedback & recognition to team.*	8. *I can learn what works and what doesn't, I can close the feedback loop so that the team internalizes that achievements are rewarded and I can begin to put a dollar value on the results of my efforts.*

EXPECTED INTANGIBLE BENEFITS

People will feel a greater sense of my desire to see them achieve. I will become more satisfied with my own achievement and my team will function more like a team. My team will make a greater contribution to the company's goals. Individual team members will become more fulfilled. This can also lead to improved employee satisfaction and improved customer service.

Part II - Action Plan for the *Leadership 101* **Training Program/Project**

Name: *Bill Burgess, Senior Engineer* **Objective:** *Enable my team to sustain continuous improvement by end of next QTR.*

Improvement Measure: *Time savings* **Current Performance:** *32 hours unproductive time per month* **Target Performance:** *Zero unproductive hours*

ANALYSIS

A. What is the unit of measure? *Team hours saved per month.* Does this measure reflect your performance alone? Yes ☐ No ☑

If not, how many employees are represented in the measure? *Eight*

B. What is the value (cost) of one unit? *$ 52.00 for each hour saved.*

C. How did you arrive at this value? *Team member salary is $ 40.00 per hour. I added 30 percent for benefits. 30% of $40 = $12 $40 + 12 = $52 per hour.*

D. How much did this measure change during the last month of the evaluation period compared to the average before the training program? (monthly value) *Improved from 32 hours of unproductive time per month to only 8 hours for entire team.*

Please explain the basis of this change and what you or your team did to cause it. *Improvement in unproductive time. Got my team involved in identifying key result areas and improvement needs and they came through. My ability to listen and not be judgmental played a key part in the results they achieved. Each hour saved due to increased productivity (resulting in less unproductive time) is credited to the program. 100% of the hours saved has been used in productive ways to benefit the company and most of what was applied to achieve these results was as a result of what I have learned from the training program.*

E. What percentage of this change was caused by the application of the skills from *Leadership 101* (0% to 100%) *75 %*

F. What level of confidence do you place on the above information? (100%=Certainty and 0%=No Confidence) *95 %*

G. If your measure is time-savings, what % of the time saved was applied toward productive tasks? (0% to 100%) *90 %*

ACTUAL INTANGIBLE BENEFITS

Because of my new approach with my team, they respond better by taking the initiative and working together to achieve results. As I continue to practice what I learned from training, my confidence increases & I will be able to accomplish more and feel better about myself

Converting Data Using External Database

Your team designed and implemented a program to reduce a turnover problem of middle managers. The average salary for a middle manager in your organization is $75,000. The intervention influenced a reduction in turnover of 10 middle managers during the first year. Apply the turnover costs job aid to the steps below to calculate the monetary value of the turnover reduction.

Step 1: Unit of Measure

Step 2: The cost/value of one turnover is (Use the Turnover Cost Summary).

Step 3: Performance Level Change

Step 4: Annual Change in Performance

Step 5: Total Annual Improvement Value

Case Application: Transportation Security Authority

At Transportation Security Authority, a Supervisor Development program was conducted with 15 Branch Managers. One of the objectives of the program was to reduce the absenteeism in each work group using interactive skill-building sessions. Before the program was conducted, the average absenteeism rate for the employees in the branch was 7%. It was determined in the follow-up evaluation that the new average rate was 4%. In a post-program follow-up, managers estimate that 40% of the reduction was directly related to the program.

A total of 120 employees work for the 15 branch managers. During the learning program, the managers (program participants) estimated the costs of a single absence to be $121. (This is the average value from all 15 managers). External studies have shown that the cost of a single absence ranges from $90 to $175, depending on the industry and specific job. Assume that employees are expected to work 240 days per year.

Calculate the annual savings from the improvement.

Five Steps to Convert a Measure to Money

1. Focus on a unit of measure
2. Determine a value (V) of each unit
3. Calculate the improvement in the measure (Δ P)
4. Determine the annual improvement in the measure (A Δ P)
5. Calculate the total monetary value of the improvement (A Δ P x V)

Example

Spend about four minutes with your team to calculate the annual monetary value of improvement in service complaints.

Step 1: 1 Complaint
Step 2: V = $700
Step 3: Δ P = Reduction of seven complaints per month due to the program
Step 4: A Δ P =
Step 5: A Δ P x V =

Converting Data to Monetary Values

- Converting output to contribution (standard value)
- Converting the cost of quality (standard value)
- Converting employee's time (standard value)
- Using historical costs
- Using internal and external experts
- Using data from external databases
- Using participants' estimates
- Linking with other measures
- Using supervisors' and managers' estimates
- Using staff estimates

Data Conversion Issues

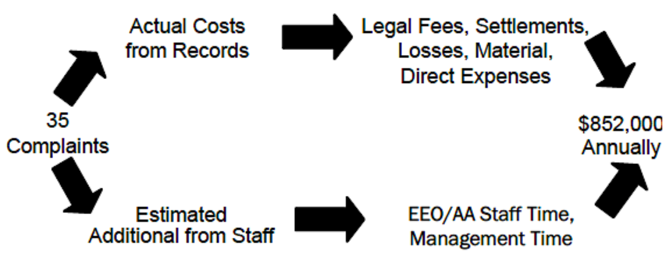
- Use the most credible sources
- If two credible sources are available, use the most conservative option
- Adjust for the time value of money
- Know when to stop this process

Standard Values are Everywhere

- Finance and Accounting
- Local Authorities
- Government Records
- Science and Engineering Databases
- IT/Systems
- Marketing and Customer Service Databases
- Procurement Records
- Research and Development Reports
- Human Resources/Human Capital

Example - Converting Data Using Historical Costs & Expert Input

The Cost of a Sexual Harassment Complaint



Cost Per Complaint $\frac{\$852{,}000}{35} = \$24{,}343$

Where to Find Experts

- The obvious department
- They send the report
- It is in the job title
- The directory
- Ask

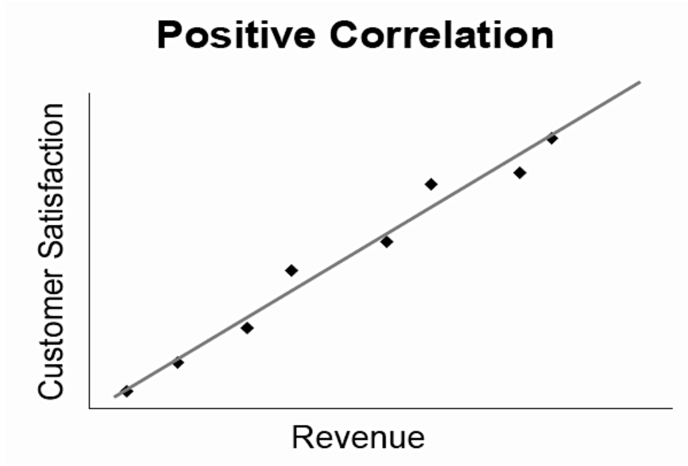
What Makes an Expert Credible?

- Experience
- Neutrality
- No conflict of interest
- Credentials
- Publications
- Track record

Finding Data

- Search engines
- Research databases
- Academic databases
- Industry / trade databases
- Government databases
- Commercial databases
- Association databases
- Professional databases

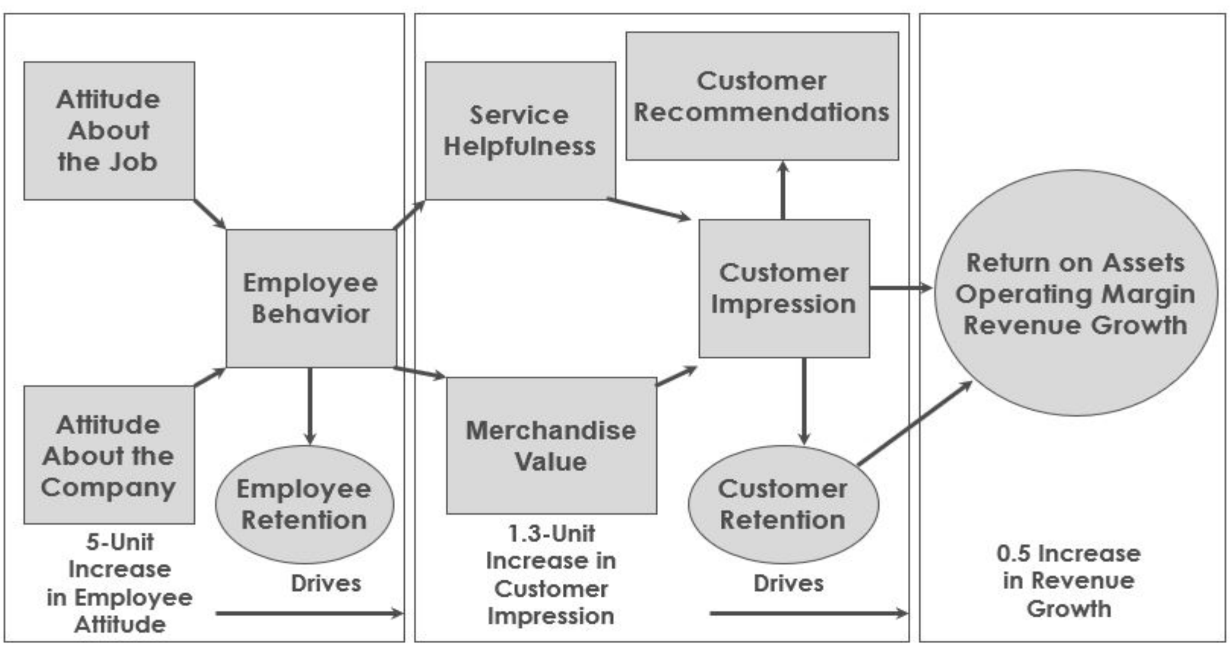
Link with Measures Converted to Money



Classic Relationships

Job satisfaction	vs.	Turnover
Job satisfaction	vs.	Absenteeism
Job satisfaction	vs.	Customer satisfaction
Organization commitment	vs.	Productivity
Engagement	vs.	Productivity
Customer satisfaction	vs.	Revenue
Conflicts	vs.	Productivity
Engagement	vs.	Safety

Example: Linking with Other Measures



Estimating the Value

- Use the most credible source
- Check for biases
- Discuss the value in general terms
- Provide information to assist in the estimate
- Collect data in a non-threatening way
- Adjust for the error

Notes:

Turnover Costs Summary

Example of Using External Databases

Job Type/Category	Turnover Cost Ranges as a Percent of Annual Wage/Salary
Entry Level - Hourly, Non-skilled, e.g. Fast Food Worker	30 - 50%
Service/Production Workers – Hourly, e.g. Courier	40 - 70%
Skilled Hourly, e.g. Machinist	75 - 100%
Clerical/Administrative, e.g. Scheduler	50 - 80%
Professional, e.g. Sales Representative, Nurse, Accountant	75 - 125%
Technical, e.g. Computer Technician	100 - 150%
Engineers, e.g. Chemical Engineer	200 - 300%
Specialists, e.g. Computer Software Designer	200 - 400%
Supervisors/Team Leaders, e.g. Section Supervisor	100 - 150%
Middle Managers. e.g. Department Manager	125 - 200%

Notes

1. Percents are rounded to reflect the general range of costs from studies.
2. Costs are fully loaded to include all of the costs of replacing an employee and bringing him/her to the level of productivity and efficiency of the former employee. The turnover included in studies is usually unexpected and unwanted. The following costs categories are usually included:
    - Exit cost of previous employee
    - Recruiting cost
    - Employment cost
    - Orientation cost
    - Training cost
    - Wages and salaries while training
    - Lost productivity
    - Quality problems
    - Customer dissatisfaction
    - Loss of expertise/knowledge
    - Supervisor's time for turnover
    - Temporary replacement costs
3. Turnover costs are usually calculated when excessive turnover is an issue, and turnover costs are high. The actual cost of turnover for a specific job in an organization may vary considerably. The above ranges are intended to reflect what has been generally reported in the literature when turnover costs are analyzed.

Sources of Data

The sources of data for these studies follow three general categories:

1. Industry and trade magazines have reported the cost of turnover for a specific job within an industry.
2. Publications in general management (academic and practitioner), human resources management, human resources development training, and performance improvement often reflect ROI cost studies because of the importance of turnover to senior managers and human resources managers.
3. Independent studies have been conducted by organizations and not reported in the literature. Some of these studies have been provided privately to the ROI Institute. In addition, the ROI Institute has conducted several turnover cost studies; these results are included in these analyses.

Converting Data to Monetary Values: Questions to Ask

- What is the value of one additional unit of service?
- What is the value of a reduction of one unit of quality measurement (reject, waste, errors)?
- What are the direct cost savings?
- What is the value of one unit of time improvement?
- Are cost records available?
- Is there an internal expert who can estimate the value?
- Is there an external expert who can estimate the value?
- Are there any government, industry, or research data available to estimate the value?
- Are supervisors of program participants capable of estimating the value?
- Is senior management willing to provide an estimate of the value?
- Does the staff have expertise to estimate the value?

Short-Term Solutions

- Defined in terms of the time to complete or implement the program
- Is appropriate when this time is a month or less
- Is appropriate when the lag between Levels 3 and 4 is relatively short
- Reflects most HR solutions

When Estimating Time for Long-Term Solutions

- Secure input from all key stakeholders (sponsor, champion, implementer, designer, evaluator)
- Be conservative
- Have it reviewed by Finance & Accounting
- Use forecasting

STEP 8

Make it Credible: Identify Intangibles

Global Bank

Networking is an important benefit from many programs, and the monetary value of networking is an elusive figure. One of Canada's largest banks decided to tackle this issue. This large banking system is on a path to be a major global organization with acquired banks in different countries and expanded divisions within the bank serving a global market.

Recently, the bank conducted a global leaders' meeting at its headquarters in Toronto where the heads of the banking units and banks around the world discussed a variety of strategy and leadership topics. The talent development team saw this as an opportunity to enhance networking. Top executives had always thought that these operating executives could benefit by working together, perhaps sharing some of the same clients and expanding specialized services to other countries. Some bank units offer services that could be purchased by other parts of the bank. With the urging of top executives, the team decided to track the success of the networking and develop the actual monetary value for networking.

The bank used innovative technology where the name tags of individuals could electronically track networking. The devices tracked which participants met other participants, how long they met, and how many times they met. Participants were asked to keep their name badges with them at all times with this message, "We want to try an experiment to see how much networking actually occurs and the value of that networking. This is not a performance issue. It's just an attempt to understand the value of networking." The bank engaged the services of external consultants to measure the monetary value of the networking.

More than 50 participants were involved in the meeting. Armed with the data that showed the networking profile, the external firm conducted interviews with each participant one month after the meeting to indicate what had actually happened with the networking, explore what had occurred since the meeting, and how it connected to the business.

Another follow up was set three months after the meeting with the specific goal of tracking the successes from the networking. A few had very little networking experience with no value. Some exchanged clients or obtained a client from another executive. For example, the headquarters of a client company may be in one country and the participants in another country used the headquarters connection to sell local financial services. A few were able to use the services of other divisions. Some were able to provide referrals. Each of these actions and consequences were detailed with as much specifics as possible to understand what happened and what was anticipated to happen in the future.

The participants attempted to place a monetary value on the outcome anticipating a profit (or cost savings) that would be generated from the contact. In some cases, a new client was secured, and they knew the value of a new client, based on the average tenure of a client and the average annual profit made with that particular product line. In interviews with 52 executives, 21 were able to provide specific data, and seven had very impressive results.

Part of the process included the question “How much of this improvement is actually caused by the networking?” There is a chance that the outcome could have happened through normal channels. In some cases, there was a possibility that the improvement could have happened without networking, as some were thinking about those particular clients. The networking helped. So, they gave a percentage of the improvement to the meeting. A final question asked for the confidence of the allocation to the program using a percent from 0 percent (no confidence) to 100 percent (certainty). This analysis of the data followed the procedures in Module 7 (Make It Credible: Isolating the Effects of the Program).

When all the money was tallied, divided by all 52 participants, an average value of the networking was $4,265 per person. Although the total amount was impressive, it wasn’t enough to cover the total cost of the conference, but that wasn’t the principal reason for the conference. This value gave executives some comfort that networking activities can add business value.

Questions for Discussion

1. Was the calculation necessary? Worth it? Explain.

2. How can this value be used in the future? Explain.

3. Should this be left as an intangible? Explain.

Intangibles

Common Intangibles

- Agility
- Ambiguity
- Alliances
- Awards
- Brand
- Burnout
- Capability
- Capacity
- Carbon emissions
- Clarity
- Collaboration
- Communication
- Compassion
- Complexity
- Compliance
- Conflict
- Corporate social responsibility
- Creativity
- Culture
- Customer service
- Decisiveness
- Emotional intelligence
- Employee attitudes
- Engagement
- Food security
- Grit
- Happiness
- Human Life
- Image
- Intellectual capital
- Job satisfaction
- Leadership effectiveness
- Loyalty
- Mindfulness
- Mindset
- Net promoter score
- Networking
- Organizational commitment
- Partnering
- Patient satisfaction
- Poverty
- Reputation
- Risk
- Social Capital
- Stress
- Sustainability
- Team effectiveness
- Timeliness
- Trust
- Uncertainty
- Volatility
- Work/life balance

Questions for Discussion

1. Can you add to the list?

___

___

2. Which of these have been converted to money? Are the values credible?

___

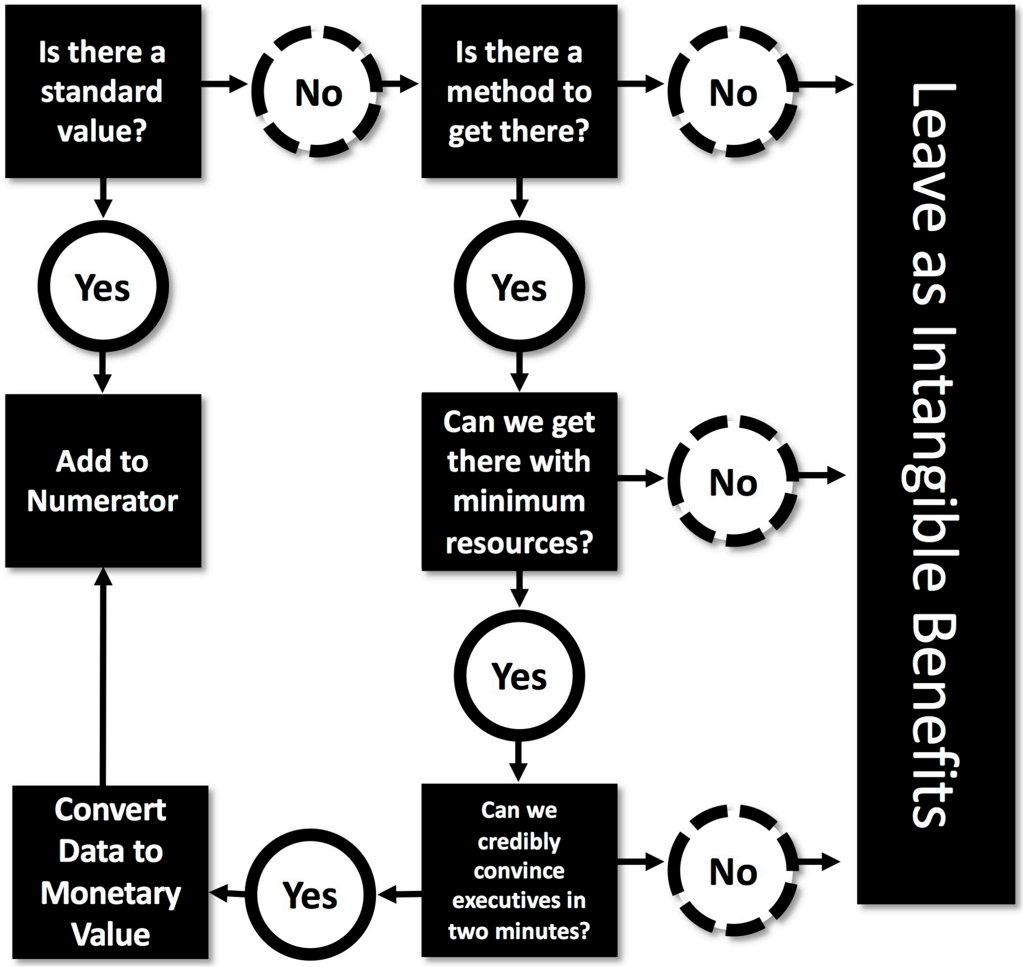
___

3. When should we stop the effort to find/calculate the monetary value for the intangible?

___

___

Data Conversion Four-Part Test



Can Happiness be Converted to Money?

At Yale University, the most popular course these days is a course on happiness. It is taught to students who are sometimes struggling to find meaning and value in much of what they do and are involved in. The course has been, surprisingly, very popular to all types of students.

According to the New York Times' David Shimer, "The course, taught by Laurie Santos, a psychology professor and the head of one of Yale's residential colleges, tries to teach students how to lead a happier, more satisfying life in twice-weekly lectures. Dr. Santos speculated that Yale students are interested in the class because, in high school, they had to deprioritize their happiness to gain admission to the school, adopting harmful life habits that have led to what she called 'the mental health crises we're seeing at places like Yale.' A 2013 report by the Yale

College Council found that more than half of undergraduates sought mental healthcare from the university during their time there."

In this case, increased happiness could be linked to mental illness out-comes, such as healthcare costs, absenteeism, and productivity.

Happiness shows up everywhere. Many organizations measure happiness through job satisfaction, which has several components, such as satisfaction with pay, career, supervisor, and the work. Employee engagement focuses more on the fulfilling aspects of the work individuals are doing, such as being more responsible, involved in decisions, accountable for results, and willingness to share information. A person with these characteristics may be a good team member. Engagement has been connected to retention, productivity, and quality, which are all easily converted to money.

The United Nations has entered the happiness trend by having a happiness index, which measures six main components. According to a UN report, the six factors are GDP per capita, healthy years of life expectancy, social support (as measured by having someone to count on in times of trouble), trust (as measured by a perceived absence of corruption in government and business), perceived freedom to make life decisions, and generosity (as measured by three recent donations). The top 10 countries rank highly on all six of these factors. In 2017, Norway was at the top of the happiness index, while the United States ranked 12th.

Should you worry about the happiness index? If you're the Minister of Happiness, as in Dubai, you might want to see the monetary value. For example, the Roads and Transport Authority (RTA) in Dubai is interested in the monetary value of happiness because it has to show the ROI on projects. RTA builds additional roads, bridges, new lanes, transit systems, water taxis, and other kinds of transport processes to keep citizens happy. Until recently, there haven't been ROI studies for a new bridge, canal, or road lane addition. Instead, these changes were implemented because there was a need to eliminate road congestion, accidents, and driving times. Essentially, the RTA wants to make citizens happy with the transportation system.

In our work with RTA, we were surprised to find that there is a happiness department, nestled within this large organization, with some interesting data helpful for the project managers to determine the ROI of new projects. For example, this department found a correlation between happiness with transit and the amount of money citizens spend in the city. If they're happy with transit—it is reliable, takes a short amount of time to travel, and is safe—they're more likely to go to the mall and spend money, and citizens spending money ultimately helps the city.

In short, there is usually a way to develop the monetary value of happiness. We suspect that in Norway, the happiness index has brought in tourists to see what goes on there, as well as some who want to stay there for a long period of time, or even live there. Maybe there is a monetary value to the Happiness Index. The key issue is that it can be done and is being done…if it is needed.

Questions for Discussion

1. Should happiness be converted to money? Explain.

2. When should you stop this conversion process?

Can Conflict be Converted to Money?

Workplace Conflict & How Business Can Harness It To Thrive*, **CPP Global Human Capital Report.

This graphic is impressive for getting your attention…but it may not be accurate. This is distributed by an organization that offers programs on conflict resolution. The critical parts of this monetary value are the assumptions and steps taken to calculate the value, which are contained in the reference. It's dated, conducted in 2008, although it was distributed in a marketing piece in 2018. Although the researchers asked 5,000 employees in nine countries (USA, Brazil, and seven European countries), the response rate is not provided. The money spent is based on the number of hours spent on conflict each week by American employees. If a conflict resolution program reduced conflicts and reduced the time spent on conflicts, the time saved could be claimed if the time saved is used on other productive work. Employees would have to be asked that follow-up question. Credibility of the data should be the concern throughout the analysis.

Questions for Discussion

1. Would you use this in an ROI calculation? Explain.

2. Does it have value? Explain.

Connecting to Intangibles

Please indicate the extent to which this program has influenced the following measures:

Intangible Measure	1. No Influence	2. Some Influence	3. Moderate Influence	4. Significant Influence	5. Very Significant Influence
Image	☐	☐	☐	☐	☐
Teamwork	☐	☐	☐	☐	☐
Brand	☐	☐	☐	☐	☐
Engagement	☐	☐	☐	☐	☐
Stress	☐	☐	☐	☐	☐
Patient Satisfaction	☐	☐	☐	☐	☐
Communications	☐	☐	☐	☐	☐
Networking	☐	☐	☐	☐	☐

Two Decisions:

1. Where should a participant rate the scale to be considered connected?

2. Where is the cutoff to make the table (the minimum percent who must show a connection)?

STEPS 9 & 10

Make it Credible: Capture Costs of Program and Calculate Return on Investment

Reasons for Developing Cost Data

- To determine the overall expenditure
- To determine the relative cost of each individual program
- To predict future program costs
- To calculate benefits versus costs for a specific program
- To improve the efficiency of the department
- To evaluate alternatives to a proposed program
- To plan and budget for next year’s operation
- To integrate data into other systems

Questions for Discussion

1. What is your rationale for monitoring costs?

___

___

2. How do you track costs?

___

___

Issues About Tracking Costs

- Monitor costs, even if they are not needed for evaluation
- Costs will not be precise
- Use a practical approach
- Minimize the resources to track costs
- Estimates are acceptable
- Use caution when reporting costs
- Do not report costs of a program without reporting benefits (or at least have a plan)

Questions for Discussion

1. What are your issues with costs?

___

___

2. Have your costs been calculated?

___

___

Tabulating Program Costs: Recommended Items

Project Cost Categories

Cost Item	Prorated	Expensed
Initial analysis and assessment	✓	
Development of solutions	✓	
Acquisition of solutions	✓	
Implementation and application		
Salaries/benefits for program team time		✓
Salaries/benefits for coordination time		✓
Salaries/benefits for participant time (if appropriate)		✓
Program materials		✓
Hardware/software	✓	
Travel/lodging/meals		✓
Use of facilities		✓
Capital expenditures	✓	
Maintenance and monitoring		✓
Administrative support and overhead	✓	
Evaluation and reporting		✓

Example of Prorating Costs

- Leadership 101
- Five-year life cycle
- 200 participants per year
- $75,000 initial development costs
- Two groups of 25 are being evaluated at the ROI level

Questions for Discussion

1. How much development costs should be charged to the ROI project?

____

____

2. What are your issues with costs?

____

____

Different Approaches to Measure the Financial Payoff of Programs

- Cost Benefit Analysis
- Return on Investment
- Payback Period
- Discounted Cash Flow
- Internal Rate of Return
- Utility Analysis
- Consequences of not providing our program

Defining the Benefit Cost Ratio

$$\text{Benefit Cost Ratio (BCR)} = \frac{\text{Program Benefits}}{\text{Program Costs}}$$

Example
Program Benefits = $71,760
Program Costs = $32,984

BCR = ―――――――― = ________

Defining the Return on Investment

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

Example
Net Program Benefits = $38,776
Program Costs = $32,984

ROI (%) = ―――――――― x100 = ________%

Defining the Payback Period

$$\text{Payback Period} = \frac{\text{Program Costs}}{\text{Program Benefits}} \times 12$$

Example
Total Investment = $32,984
Annual Savings = $71,760

Payback Period = ―――――――― x 12 = ______

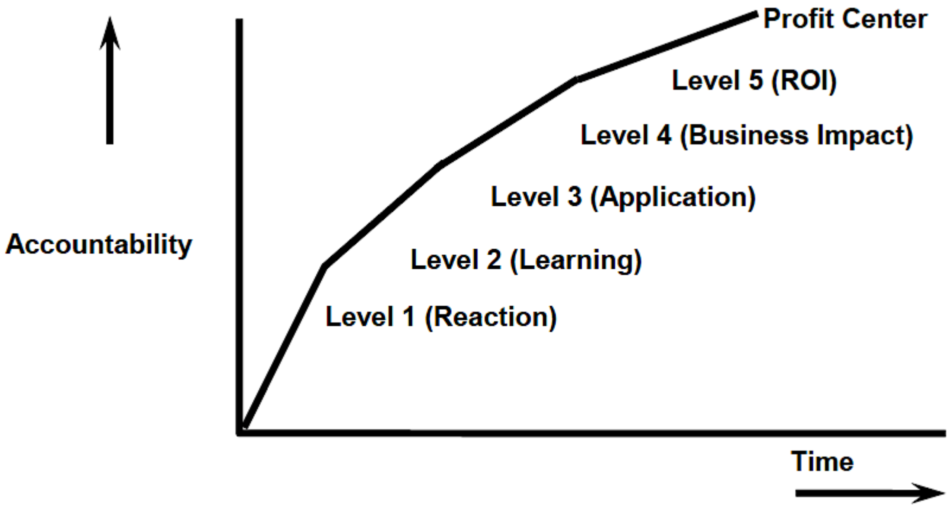
ROI Target Options

- Set the value at the same level as other investments, e.g. 15%
- Set slightly above other investments, e.g. 25%
- Set at break-even: 0%
- Set at client expectations

A Rational Approach to ROI

- Keep the process simple.
- Use sampling for ROI calculations.
- Always account for the influence of other factors.
- Involve management in the process.
- Educate the management team.
- Communicate results carefully.
- Give credit to participants and managers.
- Plan for ROI calculations.

The Journey to Increased Accountability



Cautions When Using ROI

- Take a conservative approach when developing both benefits and costs.
- Involve management in developing the methodology.
- Fully disclose the assumptions and methodology.
- Approach sensitive and controversial issues with caution.
- Teach others the methods for calculating the return.
- Recognize that not everyone will buy into ROI.
- Do not boast about a high return.
- Choose the place for the debates.
- Do not try to calculate the ROI on every program.

Misused Financial Terms

Term	Misuse	CFO Definition
ROI	Return on ideas	Return on investment
	Return of impact	
	Return of information	
	Return on Innovation	
	Return on inspiration	
	Return of intelligence	
ROE	Return on expectation	Return on equity
	Return on events	
	Return on exhibit	
	Return on engagement	
ROA	Return on anticipation	Return on assets
ROCE	Return on client expectation	Return on capital
ROP	Return on people	?
ROR	Return on resources	?
ROT	Return on technology	?
ROW	Return on web	?
ROM	Return on marketing	?
ROO	Return on objectives	?
ROQ	Return on quality	?
ROC	Return on character	?

Questions for Discussion

1. What's your reaction to these terms?

____

____

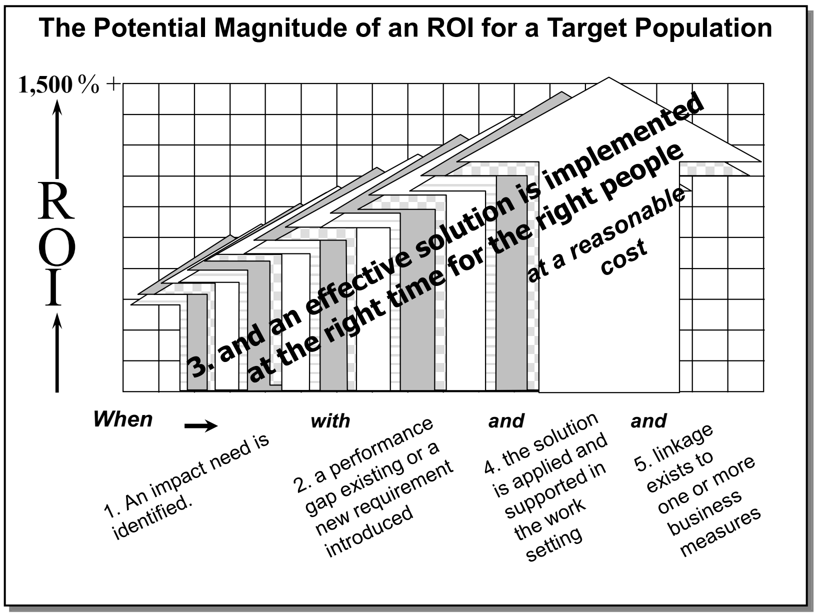
2. Have you used them? Why did you use them?

____

____

ROI Myths

- ROI is too complex for most users.
- ROI is too expensive, consuming too many critical resources.
- If senior management does not require ROI, there is no need to pursue it.
- ROI is a passing fad.
- ROI is too subjective.
- ROI is for post-analysis only.



Keep it Simple

When you are facing a group of top executives with Ph.D.s in science, engineering, and mathematics, it is easy to assume they will want to see a lot of complicated statistics. After all, that's what they studied for many years. However, this may not be the case. We learned this quickly when we faced a group of top executives in 1997, with an evaluation project with Intel. This was a company-wide transformation project that had attracted the interest of top executives.

Intel was one of the most successful companies at the time and was led by Andy Grove, a notoriously focused executive who, for over a decade, brought the shareholders a 40 percent annual increase in shareholder value, making Intel one of the most significant companies in the world. Andy was a high-profile, highly successful, and very serious CEO.

At the beginning of the study, the team asked us to use all the statistics that we could possibly use. When we asked why, the client explained that when the project is finished, the results would be presented to the senior executive group, and, for the most part, they all have Ph.Ds. in math, physics, engineering, and other technical disciplines. "They love numbers, detailed analyzes, and statistical concepts," said the client.

Although we were a little skeptical, we worked hard at using mathematical and statistical tools, some that we probably didn't need to use. Other methods were located just for this type of data. For example, we found a Box-Jenkins technique that seemed to be suitable for the analysis.

We approached this meeting armed with a lot of numbers, heavy analysis, and enough jargon to drive an English teacher insane. The reality was that we had very sound data, used a logic model, and completed a very conservative analysis to show that the project was working. The project could be even more successful if some adjustments are made in the future. It was a great story to tell.

After a brief description of the program and our plan, we launched into data and analysis, with heavy use of statistical language. Not far into the presentation, the CEO, Andy Groves, asked, "Do you have something a little simpler? I'm a little bit lost in what you are saying. We are just trying to make the decision if we should continue with this program or not. So, please give us some good data to make that decision."

It was at that point that we made an adjustment, keeping to the classic logical framework and conservative analysis that usually wins over any CFO.

The lesson that we learned through this experience is to be careful about trying to use a lot of statistics. *How to Lie with Statistics* by Darrell Huff is one of our favorite statistics books, and one that has weathered many years of use. We know that people do lie with statistics, sometimes intentionally and at other time unintentionally. The more complicated the analysis, the more executives seem to mistrust the statistics. We are not suggesting that we 'dumb' things down, but we are suggesting to keep it as simple as possible. After all, this is decision science. It is a decision that we are making, and executives make decisions every day. The more practical, realistic, and credible the analysis is for the decision, the better.

Questions for Discussion

1. What is your reaction to this story?

____

____

2. Does this make you uncomfortable?

____

____

3. Can you give practical examples where simple is better?

____

____

Step 11

Tell the Story: Communicate Results to Key Stakeholders

Communication Challenges

- Measurement and evaluation are meaningless without communication.
- Communication is necessary for making improvements.
- Communication is a sensitive issue.
- Different audiences need different information.

Questions for Discussion

1. What have been your challenges with communicating results?

____

____

2. What has worked well for you?

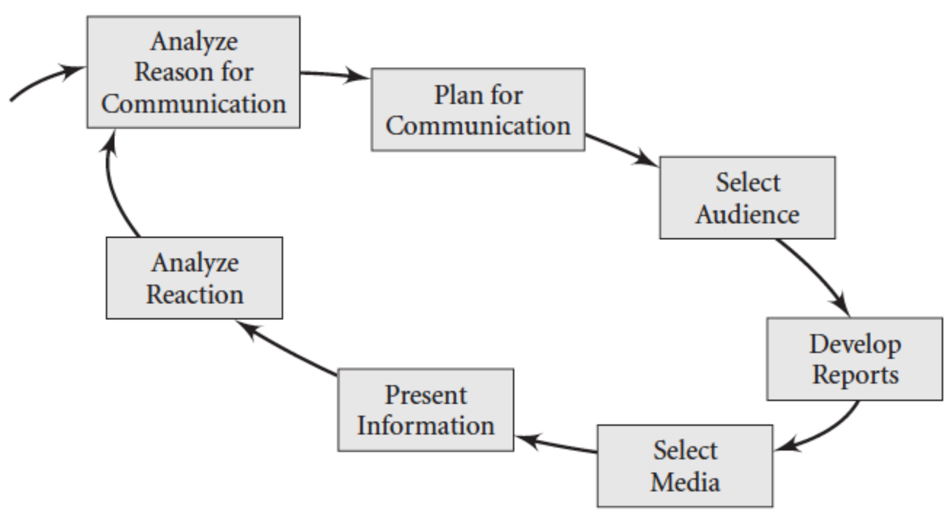
____

____

Communication Basics

- Keep communication timely.
- Target communication to specific audiences.
- Stay unbiased and modest with the message.
- Carefully select communication media.
- Keep communication consistent with past practices.
- Incorporate testimonials from influential individuals.
- Consider your function's reputation when developing the overall strategy.
- Use language your audience understands.

A Communications Model for Results



Questions for Discussion

1. What are your lessons learned from communicating results?

2. What was your biggest mistake?

Audience Selection Questions

- Are they interested in the program?
- Do they really want to receive the information?
- Has someone already made a commitment to them regarding communication?
- Is the timing right for this audience?
- Are they familiar with the program?
- How do they prefer to have results communicated?
- Are they likely to find the results threatening?
- Which medium will be most convincing to them?

Can you add to this list?

Common Target Audiences

Primary Target Audience	**Reason for Communication**
Client	• To secure approval for the program
Managers	• To gain support for the program
Participants	• To secure agreement with the issues
Top Executives	• To enhance the credibility of the program leader • To improve the results and quality of future feedback
Immediate Managers	• To reinforce the processes used in the program • To prepare participants for the program
Program Team	• To drive action for improvement • To create the desire for a participant to be involved
Key Stakeholders	• To show the complete results of the program
Support Staff	• To explain the techniques used to measure results
All Employees	• To demonstrate accountability for expenditures
Prospective Participants	• To market future programs

Complete Report

- General information
- Methodology for impact study
- Data analysis
- Costs
- Results
- Barriers and enablers
- Summary of findings
- Conclusions and recommendations
- Exhibits

The Impact Study Serves Several Purposes

- The method of communicating results, only for those audiences needing detailed information.
- As a reminder of the resources required to produce major studies.
- As a historical document of the methodology, instruments, and processes used throughout the impact study.
- A teaching and discussion tool for staff development.

Methods of Communication

- Meetings
  - Executives
  - Management
  - Stakeholders
  - Staff
- Detailed Reports
  - Impact study
  - Case study (internal)
  - Case study (external)
  - Major articles
- Brief Reports
  - Executive summary
  - Slide overview
  - One-page summary
  - Brochure
- Electronic reporting
  - Website
  - Email
  - Blog/Social media
  - Video
- Mass Publications
  - Announcements
  - Bulletins
  - Newsletters
  - Brief articles
  - Press releases

Notes:

Impact Study Outline

Complete Report: 10 – 25 Pages

- General Information
  - Objectives of Study
  - Background
  - Brief Program Description

- Methodology for Impact Study
  - Evaluation Outcomes (5 levels)
  - ROI Process Model
  - Collecting Data
  - Isolating the Effects of Program
  - Converting Data to Monetary Values
  - Costs
  - Assumptions (Guiding Principles)

Builds credibility for the process.

- Results
  - General Information
    - Response Profile
  - Reaction
  - Learning
  - Application
    - Barriers
    - Enablers (optional)
  - Impact
    - Isolating the Effects of Programs
    - Converting Data to Money
  - Costs (Direct and Indirect)
  - ROI Calculation
  - Intangible Benefits
  - What Makes This Credible

The results with six measures: Levels 1, 2, 3, 4, 5, and Intangibles.

- Summary of Findings

- Conclusions and Recommendations
  - Conclusions
  - Recommendations

- Exhibits

Communicating with Senior Management

- Do they believe you?
- Can they take it?

Purpose of the Meeting
- Create awareness and understanding of ROI.
- Build support for the ROI Methodology.
- Communicate results of study.
- Drive improvement from results.
- Cultivate effective use of the ROI Methodology.

Meeting Ground Rules
- Do not distribute the impact/ROI study until the end of the meeting.
- Be precise and to the point.
- Avoid unfamiliar jargon.
- Spend less time on the lower levels of evaluation data.
- Present the data with a strategy in mind.

Presentation Sequence

1. Describe the program and explain why it is being evaluated.
2. Present the methodology process.
3. Present the reaction and learning data.
4. Present the application data.
5. List the barriers and enablers to success.
6. Address the business impact (with isolation and conversion to money).
7. Show the costs.
8. Present the ROI.
9. Show the intangibles.
10. Review the credibility of the data.
11. Summarize the conclusions.
12. Present the recommendations.

Communication Progression

First 1 – 2 ROI Studies	→	Detailed Study	→	Meeting
3 – 4 ROI Studies	→	Executive Summary	→	No Meeting
5 Plus ROI Studies	→	One-Page Summary	→	No Meeting

Storytelling

Importance

The simple rationale for telling stories is that they work. Here are eight of Paul Smith's 10 most compelling reasons to tell stories, and he has much evidence to back them up:

1. Storytelling is simple.
2. Storytelling is timeless.
3. Stories are contagious.
4. Stories are easier to remember.
5. Stories inspire.
6. Stories appeal to all types of audiences.
7. Stories fit in the workplace where most of the work happens.
8. Telling stories shows respect for the audience.[1]

Story Structure Checklist

Hook
- Why should I listen to this story?

Content
- Where and when did it happen?
- Who is the hero? (Are they relatable?)
- What do they want? (Is that worthy?)

Challenge
- What is the problem/opportunity? (Relevant?)

Conflict
- What did the hero do about it? (Honest struggle?)

Resolution
- How did it turn out in the end?

Lesson
- What did you learn?

Recommended Action
- What do you want me to do?

---

[1] P. Smith. *Lead with a Story: A Guide to Crafting Business Narratives That Captivate, Convince, and Inspire*. New York, NY: AMACOM. 2012. Used with permission.

Narrative and Numbers

Recently, a person involved with soft skills programs described an issue she was facing. She had communicated the value of various soft skills programs to her executives using anecdotes and comments. She was proud of the stories about these programs, but was asked the one nagging question that almost always surfaces with soft skills: "Do you have actual data?" She had also received feedback that her stories needed structure.

Fortunately, the ROI Methodology® provides a framework for categorizing, collecting, analyzing, and reporting six types of data (reaction, learning, application, impact, ROI, and intangibles). This framework presents a profile of success with a balanced set of data (qualitative and quantitative) often collected at different timeframes from different sources. Numbers, by themselves, can be boring. A narrative in the format of a story makes the results interesting, engaging, and something that will be remembered.

Storytelling is an excellent way to engage an audience and connect them with the situation, learn from it, and remember it. The key is to have numbers and narrative, and this methodology provides an excellent opportunity for both.

Reaction

Level 1, Reaction data, displays how participants perceive the program to be relevant, important to their success, and something that they would use and recommend to others. When collecting data, always provide a place for respondents to provide comments; the narrative comes from the comments, the comments bring the information to life, and just a few comments are needed. For example, *one participant added, "This is the most significant professional development program I have attended in my 22 years of work. It was timely and just what I needed."* That is a short, but powerful story.

Learning

Level 2, Learning data, provides measures of learning, whether it is self-assessment, observation of role playing, test scores, multiple choice, or true/false data. This data can even be enhanced with pre and post learning data. While important, this should be kept to a minimum when presenting to executives, who may not be very interested in what participants have learned. However, a good story about learning could be helpful. For example, *another participant commented, "I came to this program expecting this would be difficult, confusing, and may not even work for me. Instead, I found the process to be simple and straight forward. I've learned a tremendous amount and now have the confidence to face my first real customer."* This story makes the difference by bringing a participant's experience to life.

Application

Level 3, Application data, shows the extent of use, frequency of use, and, perhaps, the success with use. The barriers and enablers to use are also presented. Comments are usually collected at this level, and often will be flowing, presenting the opportunity for another story. For example, *one participant stated, "This was much easier to use than I thought. The reaction of my team was much better than expected and, for me, it is working. The support, tools, and job aids provided made it much easier. This will be my new habit going forward."* This story presents a vivid and helpful example.

Impact

Level 4, Impact data, captures executive and sponsor attention as they need specific measures or key performance indicators. Displaying those measures requires data, data, and more data. However, you can include a story of how it worked, such as *one participant added, "After using this material, I noticed unplanned absenteeism began to reduce quickly. This validated what I learned in the program, and I used it more. I am amazed at the results. Not only did I meet my goal of reducing unplanned absenteeism, but I exceeded it. The program made a big difference."* The words of this participant personalize the impact and help executives see the program's importance.

ROI

A story at Level 5, ROI, is also possible if the participant knows about the ROI calculation. Sometimes they do, because they are involved in showing the monetary value of a measure. For example, *one nurse manager, responding to the success of a safe workplace program said, "I was amazed at how we improved our safety performance. When we evaluated one year with this program, it exceeded our wildest dreams. We avoided some very costly mistakes. No doubt, this is a positive ROI for the hospital. It's also an eye opener of how we can lower costs in the hospital."* This story responds to the ROI, even if they haven't seen the actual ROI calculation. This is powerful.

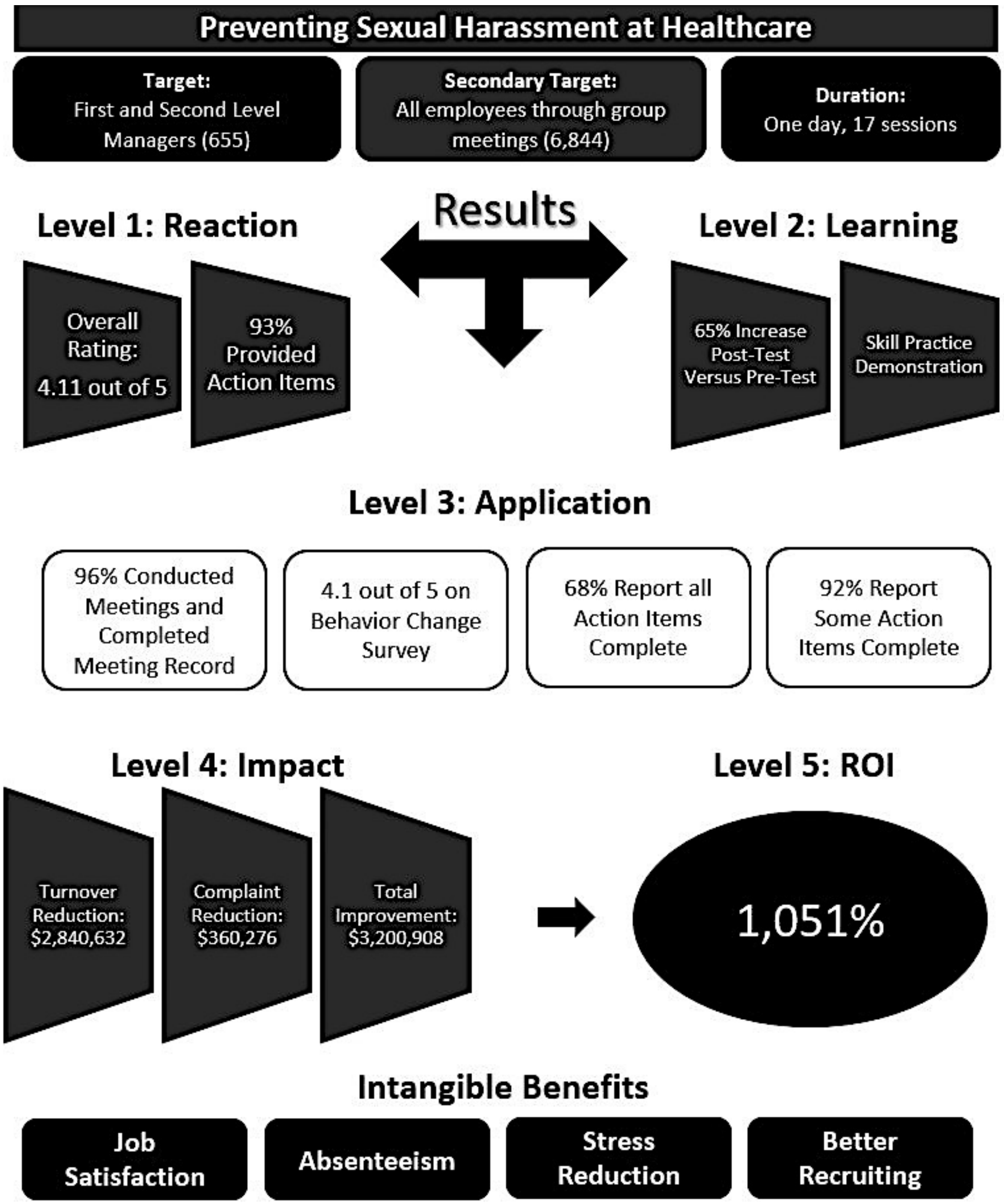
Intangibles

Lastly, intangibles are measures that are not converted to money because the conversion would take more time than is available. The monetary value also might not be credible to executives after it is converted to money. Intangibles measure are still important, and they need to be reported with an indication of how strongly they are connected to the program. Great stories often surround intangibles. For example, *when responding to a leadership program conducted by the World Bank, one participant said, "This program has enhanced my team's ability to collaborate, communicate, and work together. I can see it in our work and the efforts of the team. This program made an amazing difference with my team."* Teamwork, collaboration, and communication are important topics which most likely will not be converted to money. Regardless, it's important to see the program's connection to those values.

It is also possible to follow one participant's story completely through the evaluation process. This may take more time but might be an appropriate strategy for sharing a program's story.

Although they need to see data, storytelling is also critical in communicating with executives. To be effective, you need to present both numbers and narrative. This should be presented in a framework through which the audience can logically see how the stories emphasizes the data and illustrate the overall value chain.

ROI Impact Study: One-Page Summary



- **Technique to Isolate Effects of Program:** Trendline analysis; participant estimation
- **Technique to Convert Data to Monetary Value:** Historical costs; internal experts
- **Fully-loaded Program Costs:** $277,987

ROI Impact Study: One-Page Summary

Leadership Development Precision Manufacturing

The Leadership Challenge

- Four-day workshop with actions plans and support tools
- Each participant selects 2 KPIs to improve using the competencies with his or her team.

Target:
First-Level Managers 970
Sample 72
(18 managers, 4 groups)

Reaction – Objectives Met

Relevance	✓
Importance	✓
Intent to use	✓

Application Objectives on a 5-point scale

Extent of use	4.3
Frequency of use	4.5
Success with use	3.9

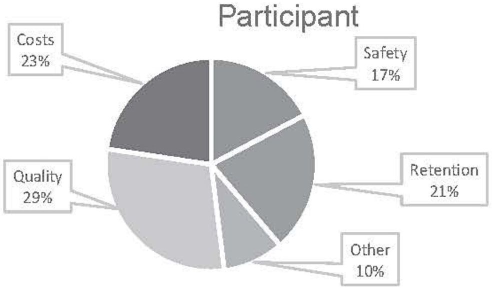
Barriers

Not enough time	23%
Lack of support	18%
Doesn't fit	14%
Other	10%

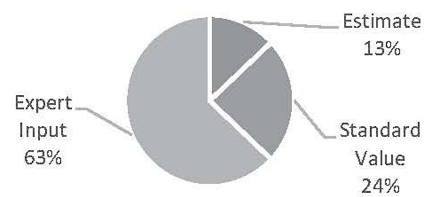
Learning Objectives Met Pre- Post- Improvements	
1. Communicate values and beliefs	48%
2. Focus on key values through actions	57%
3. Build collaboration teamwork and trust	42%
4. Strengthen others' abilities to excel	69%
5. Inspire others to share a common vision	53%
6. Recognize the accomplishments of others	67%

Methods of Isolation: Participant Allocation Adjusted for Error

Impact Objectives
Two Objectives for Each Participant



Method of Converting Data to Money



Costs – Direct $355,370
Indirect – Prorated $9,890
Total $365,260

Total Monetary Benefits = $538,640

Intangibles

Engagement
Satisfaction
Stress

BCR = 1.47

ROI = 47%

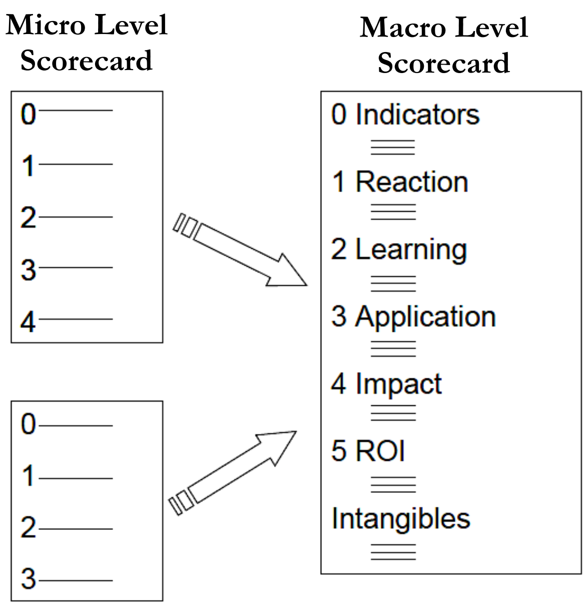
Case Studies

Internal Use
- Communicate results
- Teach others
- Build a history
- Serve as a template
- Make an impression

External Publication
- Provide recognition to participants
- Improve image of function
- Enhance brand of department
- Enhance image of organization

Building a Macro Scorecard

- Provides macro-level perspective of success
- Serves as a brief report versus detailed study
- Shows connection to business objectives
- Integrates various types of data
- Demonstrates alignment between programs, strategic objectives, and operating goals



Categories of Data

- Indicators
- Reaction and Planned Action
- Learning
- Application
- Business Impact
- ROI
- Intangibles

Use of Evaluation Data	Appropriate Level of Data				
	1	2	3	4	5
Adjust Program Design	✓	✓			
Improve Program Delivery	✓	✓			
Influence Application and Impact			✓	✓	
Enhance Reinforcement			✓		
Improve Management Support			✓	✓	
Improve Stakeholder Satisfaction			✓	✓	✓
Recognize and Reward Participants		✓	✓	✓	
Justify or Enhance Budget				✓	✓
Develop Norms and Standards	✓	✓	✓		
Reduce Costs		✓	✓	✓	✓
Market WLP Programs	✓		✓	✓	✓
Expand Implementation to Other Areas				✓	✓

Delivering Bad News

- Never fail to recognize the power to learn and improve with a negative study.
- Look for red flags along the way.
- Lower outcome expectations with key stakeholders along the way.
- Look for data everywhere.
- Never alter the standards.
- Remain objective throughout the process.
- Prepare the team for the bad news.
- Consider different scenarios.
- Find out what went wrong.
- Adjust the story line to “Now we have data that shows how to make this program more successful.” In an odd sort of way, this becomes a positive spin on less-than-positive data.
- Drive improvement.

Analyze the Results of Communication

- Observe reactions.
- Solicit informal feedback.
- Collect formal feedback.
- Monitor blogs.
- Make adjustments.

Matching Exercise: Reporting Results

Instructions: For each of the following situations, please indicate the method used to report the results from an impact/ROI study for a particular program. Select from these methods:

A.	Live meeting with executives	F.	Panel discussion
B.	One-page summary of results	G.	Newsletter article
C.	Website summary	H.	Brief case summaries
D.	Website video	I.	Case study book
E.	Executive summary	J.	Executive scorecard

Write the letter in the box to reflect the strategy used. Use each letter only once.

Situation		Method
1.	Dale Carnegie had independent ROI studies conducted on two of its major programs: The Dale Carnegie Course and Leadership for Managers. When a study is developed, an executive ROI summary is sent to all stakeholders involved in the program, who provide essential data with explanations. These executive summaries are quick-reads for the individuals who paid for or sponsored the program.	☐
2.	The Department of Transportation (DOT), a long-time user of the ROI Methodology, presented its impact study results in a one-page format. This simple format, designed to capture all of the data sets of an ROI study, is sent only to executives who already understand the methodology and know what the data items mean. It provides a quick overview of the six types of data, including the method of isolation, the method of converting data to money, and the methods used to collect data.	☐
3.	An Environmental Protection Agency (EPA) places its impact/ROI studies on the website for use. In addition, for some major ROI studies, EPA has included a video of the presentation of results. The video is essentially a rehearsal of the presentation to the senior management team and recorded for posting after the meeting is conducted. This 20-minute video of the summary results includes slides with all of the data sets, conclusions, and recommendations.	☐
4.	The Veterans Administration (VA) has been using the ROI Methodology for ten years. The website for the Employee Education System provides a summary of the progress made and specific goals. The website includes the number of individuals who have acquired ROI capability and how many individuals have achieved ROI certification. Individual ROI studies are presented, along with summaries of analysis and various trends in ROI use, including a meta-analysis of all the case studies. In addition, the website includes tools and templates to be exchanged among the team.	☐

5. ROI Institute conducted an impact and ROI evaluation for a management assessment center used by three UN agencies: The World Food Programme, the Food and Agriculture Organization, and the International Fund for Agriculture Development. The results were tabulated and reported to top executives in a live face-to-face meeting. The executives used the results of the study to make important improvements in the center. ☐

6. Memorial Regional Health System conducted an ROI study on the value of chaplaincy and used the results internally in the organization to make adjustments and improvements. The study was presented to a group of colleagues at a global conference. The presentation, a part of a panel discussion, showed how this methodology can be used in a soft skills area. ☐

7. UNESCO, The UN Educational, Scientific, and Cultural Organization developed a learning scorecard based on the data generated from evaluation. Recognizing that each program is evaluated at some level, this scorecard integrates levels of evaluation and provides data about the L&D contribution across the organization. This scorecard provided data that the executive group needed, distinguishing it from previous scorecards which focused primarily on inputs and reaction data. ☐

8. SkillNets, an Irish organization funded by both the private sector and the government, sponsored the implementation of the ROI Methodology in Ireland. As part of its support and funding for the programs, SkillNets offered consulting services to develop ROI studies across a variety of Irish companies and organizations. In exchange for receiving funding to help conduct studies, each organization gave permission to publish its case study and to be distributed throughout the country. The 15 brief case summaries provided insight to how these studies were conducted and the challenges and opportunities along the way. More than anything else, the case summaries, in booklet form, provided insight into the power of the ROI Methodology. ☐

9. The Ministry of Education in Oman conducted several ROI studies for programs in the schools and universities in the sultanate of Oman. In each of these studies, the impact and value of the programs were developed. These studies were published as a book of case studies and provided to key stakeholders and clients to show the value of education programs. Ultimately, the case study book provided effective, strategic data to help the team gain respect for the education function, improve support for education programs, and enhance the budget for the ministry. ☐

10. The Department of The Interior conducted an ROI study on a professional development program for the park rangers. The results were significant and impressive and uncovered some important changes to make the program even more successful. A summary of the study was placed in a newsletter for all of the employees. The summary was an easy-to-read, engaging account of the program and brought much appreciation for and attention to the job of park ranger. ☐

STEP 12

Optimize Results: Use Black Box Thinking to Increase Funding

Black Box Thinking is Needed

Airline travel is the safest transportation system in the world and being in an airplane is one of the safest places you can be. You are a hundred times more likely to be struck by lightning on a golf course than killed in an airplane crash. How did it get this way? It happened through the concept of black box thinking. Each airplane has two black boxes, one for systems recording and the other for voice recording. When a plane crashes, these boxes usually identify the cause of the crash. The analysis of data results in changes in design, procedures, processes, or training. Black box analysis is required by regulations/standards and enforced globally.

Mathew Syed, in his book, *Black Box Thinking: Why Most People Never Learn from Their Mistakes -- But Some Do*, argues that black box thinking should permeate the healthcare industry.[1] With dramatic examples, Syed describes the dire state of today's healthcare situation, where errors in the system kill thousands of people every month. This book has prompted many discussions and inspired some action, but, due to resistance, little progress has been made in the healthcare industry.

Scott Shackleford's article in *The Wall Street Journal* suggested that black box thinking should also be brought into the cybersecurity industry.[2] Shackleford asserts that when there is a cybersecurity breach, it must be investigated, and that investigation should lead to legal and regulatory changes, dramatically reducing the number of cyberattacks. Currently, when an attack occurs, the organization will investigate and adjust, but rarely do these events prompt industrywide changes.

The innovation field has adopted a different approach about mistakes. Failures are celebrated and innovators are encouraged to make mistakes. While the intention is good—don't let failure discourage innovation—the wrong message has been sent. Recent reports are suggesting that even venture capitalists think it is ill-advised to celebrate mistakes.[3] The *Harvard Business Review* commented on the issue, suggesting that mistakes should not be celebrated. Instead, they should be tolerated, and we should learn from them.[4] The key issue is learning from mistakes.

Black box thinking is not a new concept. It's process improvement and has been practiced for years. Unfortunately, people don't focus on process improvement. When there is a mistake, it is usually ignored, hidden, or diminished for various reasons.

Your professional field has its own track record of mistakes. It is not unusual to find multiple projects and programs implemented for the wrong reasons, not having the right solution, or without an expectation of adding value to the organization. Consequently, they fail to deliver value. It is not surprising that these programs are not always supported by the management team. Fortunately, we know how to change this.

We know how to begin with the end in mind with very clear business measures. We know how to select the right solution, and we know how to achieve success with clear objectives, including impact objectives. We know how to collect data to make sure the program is relevant to the individuals involved and adjust if it is not. We know how to ensure that application delivers an impact. And if it doesn't, we know how to improve it. Yet, for too long, we have been slow to change habits.

We need to design for success in the beginning and measure the success along the journey to ensure that success is delivered. Remember, we are evaluating the project and not the individuals. If it's not working, there is something wrong with the project and not necessarily the participants. When this becomes routine, we are optimizing the return on investment in our projects and this makes a great case for more budget allocation. Black box thinking is needed in every project and program.

1. Syed, M. *Black Box Thinking: Why Most People Never Learn from Their Mistakes--But Some Do.* New York, NY: Portfolio/Penguin, 2015.
2. Shackelford, S.J., "We Need An NTSB for Cyberattacks," *The Wall Street Journal,* June 5, 2019.
3. Phillips, J.J. and P.P. Phillips. T*he Value of Innovation: The Value of Innovation: Knowing, Proving, and Showing the Value of Innovation and Creativity.* Hoboken, NJ: Wiley-Scrivener; 2018.
4. Pisano, G.P. "The Hard Truth About Innovative Cultures," *Harvard Business Review*, January - February 2019.

Questions for Discussion

1. What's the status of black box thinking in your organization?

   ____

   ____

2. What keeps your organization from using more black box thinking for projects and programs?

   ____

   ____

3. What can be done to focus more on process improvement in projects and programs?

   ____

   ____

Notes:

Process Improvement is the Key: Black Box Thinking

Questions for Discussion

1. Compare and contrast the approach to mistakes in the aviation and healthcare industries. Why does this happen?

2. What is your approach to failure in programs?

Failures in Programs

When examining all types of programs, we know:

1. More than half of programs are wasted (not used or implemented, although we want them to be used). The culprit: failure in the system.
2. Most program evaluators do not measure success at the levels desired by top executives (Levels 4 and 5). The culprit: fear of results (perceived failure).

The failure of programs (or the fear of failure) is serious, although it may seem trivial. After all, what will it hurt if participants:

1. Are involved in a program when they are not in a role or situation to make the program successful?
2. Are not interested in the program content, information, or concepts and are not motivated to use it?
3. Choose not to learn how to make the program successful?
4. Fail to take action to make the program successful?

This is not so important until you consider the number of programs in governments, NGOs, nonprofits, and businesses.

Is program failure a serious problem?

Making Adjustments in Programs

Key Issues

1. Fear of results.
   a. Is it real?

   b. What can you do about it?

2. You can always do better.
   a. Is this possible for most programs?

   b. What's your approach?

3. When do you discontinue the program?
   a. What are your thoughts on this issue?

   b. Have you discontinued a program based on evaluation data?

Notes:

Cost vs. Investment

Carlos Ghosn is chairman and CEO of France-based Renault, chairman and former CEO of Japan-based Nissan, and chairman of Mitsubishi Motors. He is a very busy man, a man who shuttles between continents, stealing sleep on a private jet. This is a boss whose remorseless focus on performance has won him global renown, starting in France is the 1990s, when his radical restructuring of Renault rescued the French carmaker – and also earned him the nickname *Le cost killer*, a label that annoys him but has stuck.

"It's sexy, there's blood in it, there's meanness," he said. "But everybody starts by being *Le cost killer*."[1]

In 2015, two very successful and wealthy investors bought two important global brands, Kraft and Heinz, and merged them. Warren Buffet, in the USA, with Berkshire Hathaway, and Carlos Alberto Sicupira, from Brazil, teamed up for this purchase. When the merger was announced, Carlos was interviewed by the *London Financial Times* and was asked about the value he saw in this merger. He responded, "When I examine these two organizations, I see costs. Costs are like fingernails, they have to be cut constantly."

Carlos has a reputation for cutting costs, and that is playing out now as those two companies have merged; the process, as expected, is brutal. If a particular staff support function or process is not able to show ROI for their expenditures, then they are at a disadvantage and often suffer significant cost reductions. This is very dramatic, and it has had a devastating effect on the learning and talent development function, because, in most cases, they had very little data to show the ROI for programs.

Bombardier, a maker of regional jet aircraft in Canada, was developing a new larger aircraft to compete with Airbus and Boeing. Although the company was not necessarily struggling, they were limiting costs to fund this new aircraft. In a move to conserve cash, the CFO sent a memo to all employees, which was reported in *The Globe and Mail*, a Canadian newspaper. Essentially, the memo said that the company needed to save cash to fund development of the new model, and in doing so, unnecessary expenses should be eliminated. The memo added that, effective immediately, all training, recruiting, external consultants, and off-site meetings were suspended. Apparently, the CFO had concluded that those expenses produced little, if any, positive ROI. It was easy to cut them, and that was what he was doing, or at least postponing them for a while.

[1] R. Khalaf. "'Le cost killer': the relentless drive of Carlos Ghosn." *Financial Times*. June 14, 2018.

Questions for Discussion

1. Do your executives or sponsors see your work as a cost or an investment? Explain.

2. If it is perceived as an investment, how did they reach that conclusion?

____

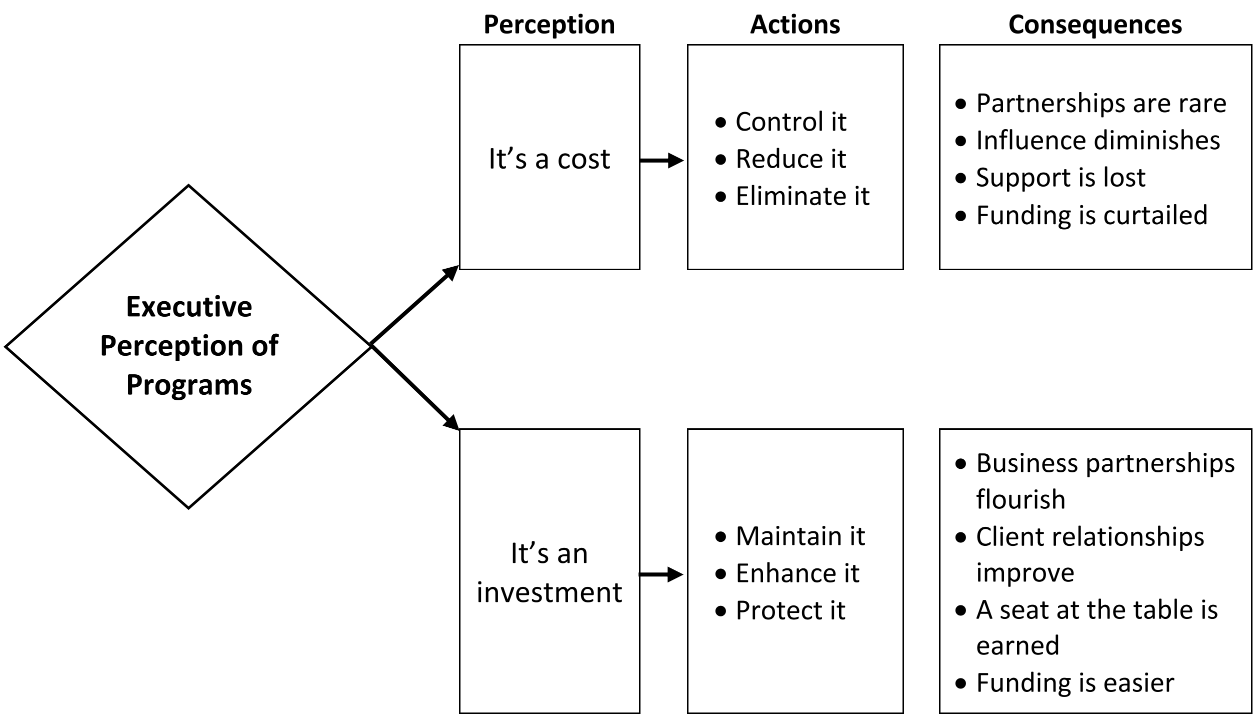
____

3. If it is seen as a cost, what will you do to convince them that it is an investment?

____

____

Costs vs. Investment Perception: The Reality



Notes: ____

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Make it Work: Sustain the Change to a Results-Based Process

Barriers to ROI Use and Implementation

After mastering the ROI Methodology, it is appropriate to examine implementation in more detail. Please take a few moments to identify the barriers to implementation and sustainability. List all the "things" that can prevent a successful implementation. Be candid.

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________

Overcoming the Barriers

Now identify the actions needed to minimize, remove, or go around the barriers. List all the "steps" that need to be taken to overcome the barriers.

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________

Implementation Issues

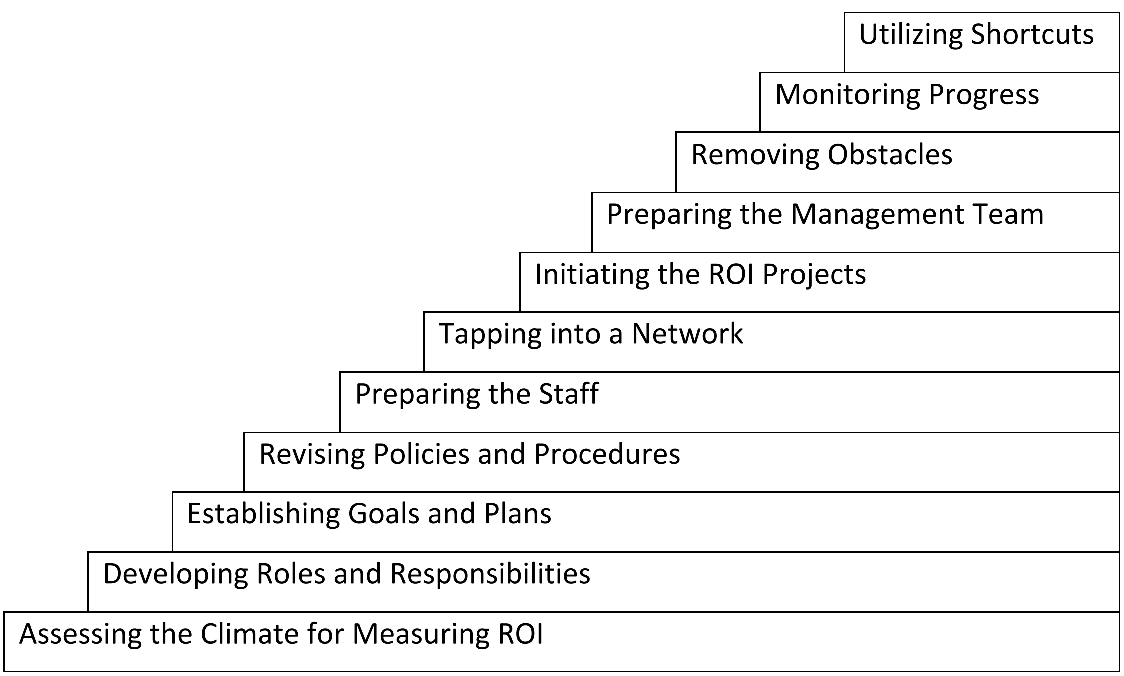
- Resources (staffing/budget)
- Leadership (individual, group, cross-functional team)
- Timing (urgency, activities)
- Communication (various audiences)
- Commitment (staff, managers, top executives)

Typical Barriers

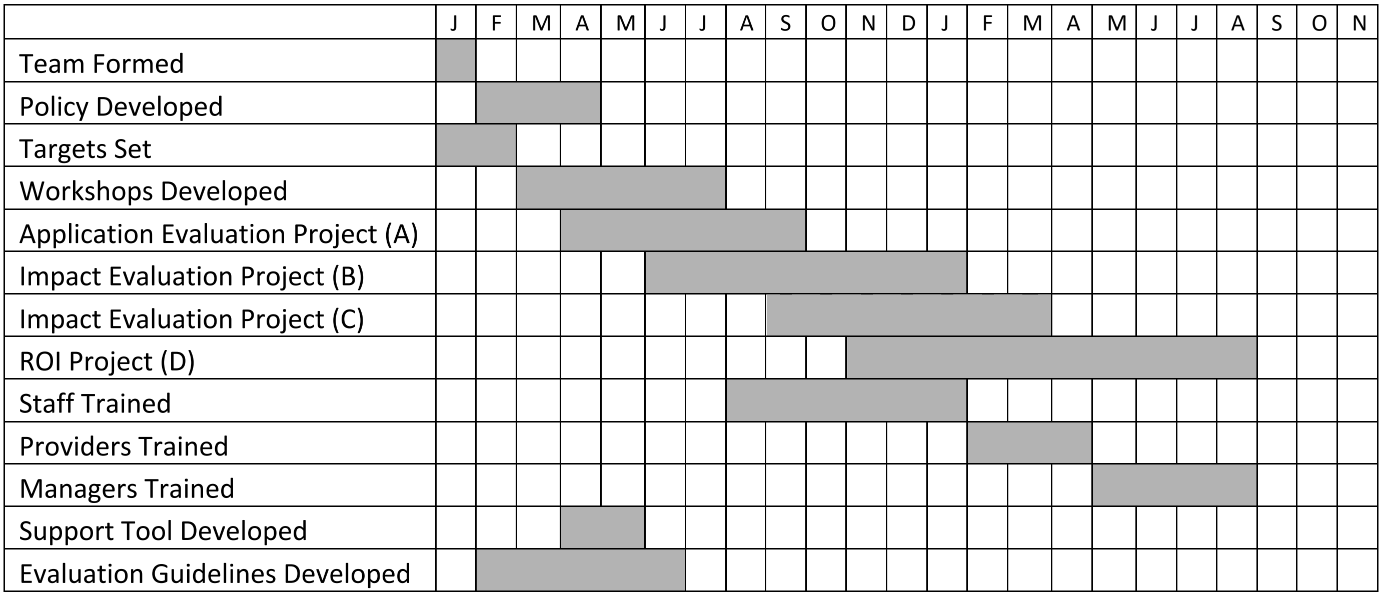
- I don’t have time for additional measurement and evaluation.
- An unsuccessful evaluation will reflect poorly on my performance.
- A negative ROI will kill my program.
- My budget will not allow for additional measurement and evaluation.
- Measurement and evaluation are not part of my job.
- I didn’t have input on this process.
- I don’t understand this process.
- Our managers will not support this process.
- Data will be misused.
- The data are too subjective.

Can you add to this list?

Building Blocks to Overcome Resistance



Measurement and Evaluation Implementation Project Plan



Assessing the Climate for Results

- Survey staff (team members)
- Survey staff from management perspective
- Develop gaps (actual vs. desired)
- Plan actions

Take the assessment. What is your reaction?

____

____

Identifying Champions

- You cannot do it alone.
- Champions have a passion for accountability.
- Consider a champion from each area.
- Prepare the champions.
- Recognize the champions.

Notes: ____

____

____

____

Responsibilities for Champions

- Designing data collection instruments
- Providing assistance for developing an evaluation strategy
- Analyzing data, including specialized statistical analyses
- Interpreting results and making specific recommendations
- Developing an evaluation report or case study to communicate overall results
- Providing technical support in any phase of measurement and evaluation
- Assisting in communicating results to key stakeholders

Who are your champions?

____

____

____

Responsibilities for Team Members

- Ensure that the needs assessment includes specific business impact measures.
- Develop application objectives and business impact objectives for each program.
- Focus the content of the program on the objectives of business performance improvement; ensuring that exercises, case studies, and skill practices relate to the desired objectives.
- Keep participants focused on application and impact.
- Communicate rationale and reasons for evaluation.
- Assist in follow-up activities to capture business impact data.
- Provide assistance for data collection, data analysis, and reporting.
- Design simple instruments and procedures for data collection and analysis.
- Present evaluation data to a variety of groups.

Team Member Involvement

- Developing plans
- Establishing responsibilities
- Designing tools and templates
- Selecting programs for higher level evaluation
- Driving changes / improvements

Who is on your team?

____

____

____

Implementation Actions

Conduct Several Studies

- Cover a variety of areas
- Move from simple to complex
- Mix up Levels 3, 4, and 5
- Avoid political issues early in the process

What's your plan for studies?

____

____

____

____

Conduct Workshops and Briefings

- 1 to 1½-hour briefings
- 1-day workshops
- 2-day workshops
- Special topics

What's your plan for workshops?

____

____

____

____

Creating an ROI Network

- Within the organization
- Within the local area
- Within the community

Typical Network Issues	Typical Network Topics
Communication methods	Tool/Template sharing
Membership rules	Collaborative projects
Meeting times	Research/Benchmarking
Topics/Issues	Sounding board
Monitoring/Managing	Project critiques
	Technology review

Who is in your network?

What will your network do?

Cost-Saving Approaches to ROI

- Plan for evaluation early in the process.
- Build evaluation into the process.
- Share the responsibilities for evaluation.
- Require participants to conduct major steps.
- Use short-cut methods for major steps.
- Use sampling to select the most appropriate programs for ROI analysis.
- Use estimates in the collection and analysis of data.
- Develop internal capability to implement the ROI process.
- Utilize web-based software to reduce time.
- Streamline the reporting process.

What are your approaches to saving/controlling costs?

Suggested Evaluation Targets

Level	Target
Level 1 – Reaction	90 – 100%
Level 2 – Learning	60 – 90%
Level 3 – Application	30 – 40%
Level 4 – Business Impact	10 – 20%
Level 5 – ROI	5 – 10%

Worksheet: Project/Program Selection Criteria

Selecting Programs for Level 4 and 5 Evaluation

List each project/program you are considering evaluating in the left column below. Rank each program as 1, 2, 3, 4, or 5 for each of the ten criteria.

Criteria and Ranking Scale

Program ↓	Life Cycle of Project / Program	Operational Objectives	Strategic Objectives	Costs	Audience Size	Visibility	Investment of Time	Management Interest	Quality of Data Collection Processes
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									

Criteria	**Ranking Scale**
1. Life Cycle of Project/Program	1 = Very short life cycle (one shot program); 5 = Long life cycle (permanent program)
2. Operational Objectives	1 = Not related to operational objectives; 5 = Closely related to operational objectives
3. Strategic Objectives	1 = Not related to strategic objectives; 5 = Closely related to strategic objectives
4. Costs	1 = Very inexpensive; 5 = Very expensive
5. Audience Size	1 = Very small audience; 5 = Very large audience
6. Visibility	1 = Low visibility for program; 5 = High visibility for program
7. Investment of Time (Delivery, coordination, support)	1 = Small investment of time; 5 = Large investment of time
8. Management Interest	1 = Low level of interest in evaluating program; 5 = High level of interest in evaluating this program
9. Quality of Data Collection Processes	1 = Very little data available; 5 = Good processes in place to collect data

Results-Based Policy

Policy Statement

- Provides focus for the staff
- Communicates results-based philosophy
- Sets goals and targets for evaluation
- Determines basic requirements
- Serves as a learning tool

Key Elements

- Purpose/mission/direction
- Evaluation targets
- Evaluation support group functions
- Responsibility for results
- Management review of results
- Follow-up process
- Communication of results

Do you have a policy about delivering results?

Evaluation Procedures and Guidelines

- Show how to utilize tools and techniques
- Guide the design process
- Provide consistency in the process
- Ensure that the appropriate methods are used
- Keep the process on track
- Place emphasis on the desired areas

Do you have a formal policy and procedures document?

The Influence of Others

- **Commitment** usually refers to the top executive group and donors and includes its pledge or promise to allocate resources to evaluation.
- Management **support** refers to the action of executives and donors and reflects their attitude toward your programs.
- Management **involvement** refers to the extent to which executives and donors are actively engaged in the programs.
- **Reinforcement** refers to the actions of others, designed to reward and encourage a desired behavior.

Implementation Strategies: Matching Exercise

Instructions: For each of the following situations, please indicate the method used to implement the ROI Methodology. Select from these methods.

A. Assess the current status of the focus on results for programs
B. Assigning roles and responsibilities
C. Set goals and targets for the team
D. Build capability with the staff
E. Conduct ROI studies
F. Revise policies and procedures
G. Increase funding
H. Create ROI network
I. Brief managers
J. Improve support of programs/team

Write the letter in the box to reflect the method used.

Situation	Method
1. Interior Health began the implementation of the ROI Methodology by conducting an impact study on a new medical procedure. A team was assigned the responsibility to conduct the study and worked as a team, with the support of the ROI Institute, to complete the ROI study. The emphasis was to demonstrate the process and see how it worked with an actual study. This was the beginning of ROI implementation.	☐
2. As the Veterans' Administration implemented the ROI Methodology, one of the first actions was to assign specific duties and responsibilities. The entire team was involved in three different areas. First, there was a centralized ROI group who were experts in the ROI Methodology. They provided the direction and leadership for the rest of the organization. The next group was the representatives from each of its VISNS as one or more individuals became certified in the ROI Methodology and became the local expert in this process. The rest of the entire team had specific roles and responsibilities. It was the shared responsibilities that made this one of the most successful ROI implementations.	☐
3. As part of the implementation of the ROI Methodology, a large religious organization developed specific guidelines, procedures, and policies for evaluation. Although procedures were in place, they had to be updated, improved, and expanded for the use of ROI. These procedures, developed with input and approval of the team, provided guidance and direction, as well as tools and templates to conduct studies in the future.	☐
4. The United Nations initiated a system-wide implementation of ROI. To develop serious capability with this process, a goal was set to have 50 individuals achieve the status of Certified ROI Professional within 18 months. In addition, 100 individuals were slated to build skills on the ROI process through a two-day workshop. This effort was designed for the UN to have its own internal capability to conduct studies and focus its programs on results.	☐

5. When the World Food Programme began implementation of the ROI Methodology, the first course of action was to administer a survey to the team. This survey assessed the current status of projects and programs, highlighting the extent to which these programs are focusing on results. This insight gave the team the opportunity to set particular goals based on the gaps the survey was revealing. ☐

6. The IT and Systems function in the Social Security Administration responded to executive requests to monitor the impact. As part of this process, the IT and Systems team examined each of their major projects and decided which projects would be evaluated and at which level. In addition, four projects were selected for impact/ROI analysis. This gave clear direction of where the team was going with their evaluation. ☐

7. As the National Security Agency implemented the ROI Methodology, it sought to bring in the help of the management team in a management briefing conducted for top leaders. It is important for managers and leaders to see the improvement made with impact studies. The manager's role in successful programs was also explored. This one-day briefing made a tremendous difference in the commitment and support for various projects and programs and the use of ROI. ☐

8. When the University of Southern Mississippi implemented ROI, an ROI network was created. A group of ROI-certified individuals and others trained in the ROI Methodology became a virtual network to exchange, critique, help, and support each other as they implemented the process. This network created the first conference on ROI in the public sector, designed to discuss the status of implementation and share success stories and new strategies. ☐

9. The National Training Program for Pulp and Paper Technology, funded in part by the National Science Foundation, is designed to help the pulp and paper industry build critical skills needed to retain jobs in the USA, and keep them from being outsourced to other countries. The project required an ROI study to show the effectiveness of the program. Through four major centers, skills were developed for major employers in the industry and an ROI impact study, conducted independently by the ROI Institute, provided the summary of the results. Because of the success of the project, NSF provided additional funding to support the continuation of the project. Ultimately, the funding will be provided by the pulp and paper industry as its program continues to enjoy success. ☐

10. The healthy living group of a large provincial health system in Canada culminated its first round of impact studies with presentations to executives. These briefings were followed by a reception attended by senior executives. The executive director presented the certificates, designating 12 individuals as Certified ROI Professionals. The CEO made a speech congratulating the group and emphasizing the importance of ROI. These actions provided tremendous support for healthy living programs and for the healthy living team to continue with its implementation of ROI in the organization. ☐

ROI Quiz

True or False? Please choose the answer you feel is most correct.

	T	F
1. The ROI Methodology collects or generates just one data item, expressed as a percentage.	❍	❍
2. A program with monetary benefits of $200,000 and costs of $100,000 translates into a 200% ROI.	❍	❍
3. The ROI Methodology is a tool to strengthen and improve programs, projects, and processes.	❍	❍
4. After reviewing a detailed ROI impact study, senior executives will usually require ROI studies on all programs.	❍	❍
5. ROI studies should be conducted very selectively, usually involving 5-10% of programs.	❍	❍
6. While it may be a rough estimate, it is always possible to isolate the effects of a program on impact data.	❍	❍
7. A program costing $100 per participant, designed to teach basic skills to 100 participants is an ideal program for an ROI study.	❍	❍
8. Data can always be converted to monetary value, credibly.	❍	❍
9. The ROI Methodology contains too many complicated formulas.	❍	❍
10. The ROI Methodology can be implemented for about 3-5% of my functional budget.	❍	❍
11. ROI is not future oriented; it only reflects past performance.	❍	❍
12. ROI is not possible for soft skills programs.	❍	❍
13. A negative ROI will kill my program.	❍	❍
14. The best time to consider an ROI evaluation is three months after the program is completed.	❍	❍
15. In the early stages of implementation, the ROI Methodology is a process improvement tool and not a performance evaluation tool for the project team.	❍	❍
16. If senior executives are not asking for ROI, there is no need to pursue the ROI Methodology.	❍	❍

So, how did you do?

Now that the answers to the quiz have been explained, see how you fared. Tally your scores. Based on the interpretations below, what is your ROI acumen?

No. of Correct Responses	Interpretation
14-16	You could be an ROI consultant.
10-13	You could be a speaker at the next ROI Conference.
7-9	You need a copy of a thick ROI book.
4-6	You need to attend a two-day ROI workshop.
1-3	You need to attend ROI certification.