The ROI Quiz:
The Myths and Mysteries of ROI

By Jack J. Phillips, Ph.D. and Patti P. Phillips, Ph.D.

The Issue

Measuring return on investment in learning, training, and development has gained much momentum in recent years. Some reports suggest that 20-25% of organizations are embracing ROI as a measurement tool. One major study characterizes ROI as the fastest growing metric, indicating that 78% of organizations are planning to embrace it in the near future. This growth in use is not limited to private sector organizations. A recent survey of 2,200 public sector organizations indicates growing use in ROI in federal, state, and local agencies as well.

This growing application of ROI has brought misunderstanding, confusion, and even fear about ROI as a tool to measure the impact of learning. Some organizations characterize ROI as a flawed and inappropriate measure for learning and development; others perceive ROI as a mysterious and illusive tool. Still others see the ROI Methodology as the immediate answer to their concerns about accountability and as a tool that can earn them a seat at the executive table. The proper characterization is probably a mix of all of these. ROI can and is being used by many organizations to show the contribution of selected programs and to reposition learning and development as a performance enhancing process. Much of the trepidation of ROI is based on misunderstandings of what it means and how it should be used.

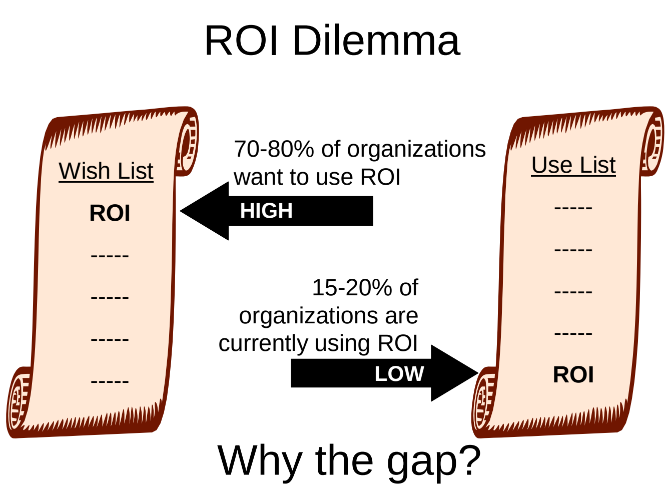

Figure 1

This article was previously published in *Industrial Management* Magazine, Feb. 2006

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The difficulties with ROI are underscored by the various benchmarking studies that show the use of ROI. Figure 1 shows the gap that exists between the organizations actually using ROI and those that would like to use ROI. In one major benchmarking study this was the widest gap of all of the items—the gap between the actual use list and wish list. Much of the gap is caused by the myths and misunderstandings around ROI.

The following quiz highlights some of the issues and misunderstandings. Before reading further, take the quiz. Based on your understanding of ROI, select either true or false for each statement. While some of these statements may not be *completely* true or false, select the one that best fits the situation.

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

	T	F
1. The ROI Methodology 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 the HR, learning/development process.	❑	❑
4. After reviewing a detailed ROI impact study, senior executives will usually require ROI studies on all programs.	❑	❑
5. ROI impact 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 with job related software, is an ideal program for an ROI impact 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 HR learning/development budget.	❑	❑
11. ROI is not future oriented; it only reflects past performance.	❑	❑
12. ROI is not possible for soft skills programs.	❑	❑
13. If an ROI impact study, conducted on an existing program, shows a negative ROI, the client is usually already aware of the program's weaknesses.	❑	❑
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 HR learning/development staff.	❑	❑
16. If senior executives are not asking for ROI, there is no need to pursue the ROI Methodology.	❑	❑

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The ROI Methodology measures the success of human resources, learning, and development programs. A “program” might be an initiative, solution, project, or course. The Methodology collects six types of data about a specific program (see Figure 2). These six types of data provide a balanced, credible profile of success. Regardless of the definition of value, there is a measure to reflect it. Some stakeholders may prefer satisfaction and learning measures. Other may prefer behavior change. Still others prefer business impact and ROI. The latter group is often the most influential.

The Value Chain: A Balanced Approach to Measuring Success

Measure 1: Participant Reaction To, Satisfaction With, and Planned Action Connected to the Human Resources, Learning, and Development Program

↓

Measure 2: Participant Learning Improvement (Changes in Knowledge, Skills, and Perceptions)

↓

Measure 3: Application of Knowledge and Skills on the Job (Behavior Change)

↓

Measure 4: Business Impact, Directly Linked to the Program

↓

Measure 5: Return on Investment, Comparing Monetary Benefits to Costs

Measure 6: Intangible Benefits Linked to the Program, but not converted to money

Figure 2. The Six Types of Measures

At the heart of the process is a step-by-step model that shows how the data are collected, processed, and analyzed (see Figure 3). The arrows in the model relate to the six types of data in Figure 2. The process starts by developing evaluation plans to collect data and make decisions regarding how the data are processed and analyzed. During implementation of the program, reaction and planned actions are captured from participants. Learning is captured as specific improvements in skills, knowledge and perceptions are measured.

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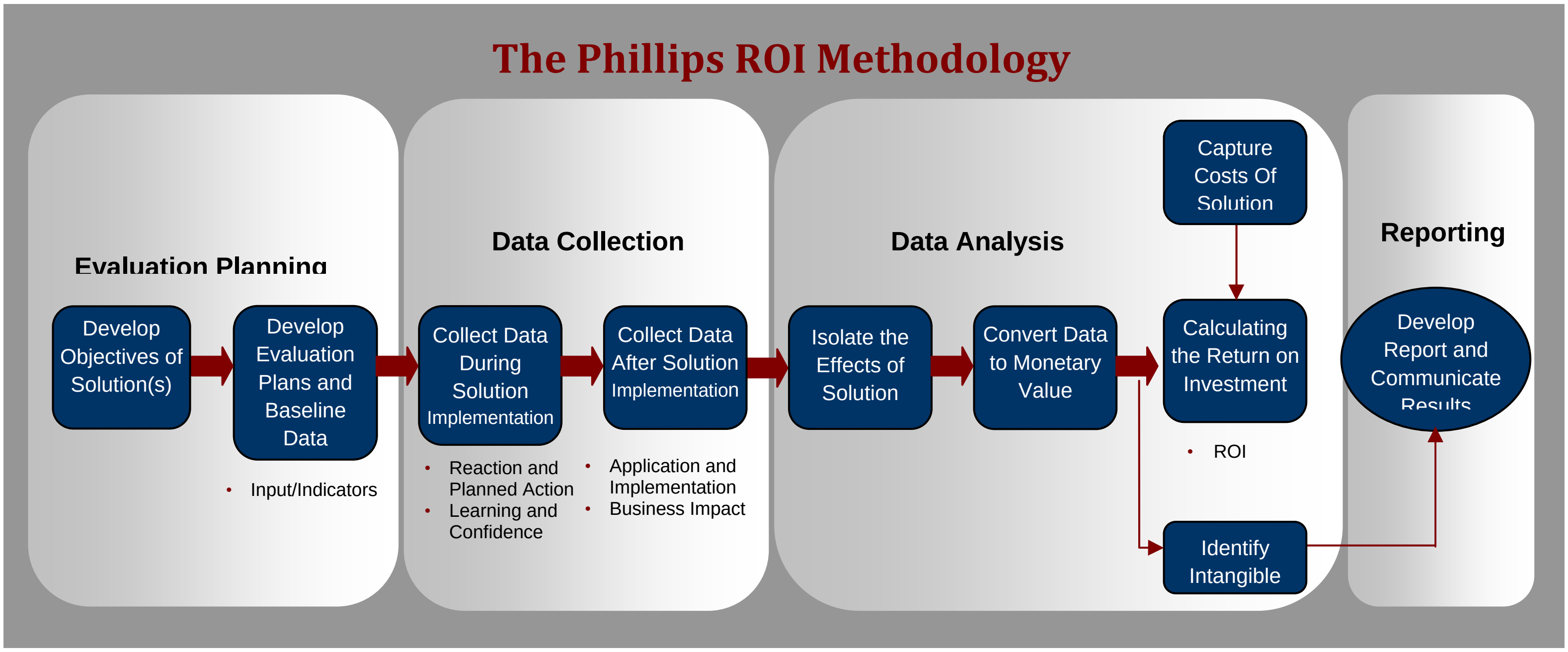

Figure 3. The ROI Model

After the program is implemented, application and implementation data are collected which show the use of the skills and the application of the program. Next, the corresponding business impact, which is directly linked to the program, is measured. Together, these blocks in the process model comprise the key elements of data collection.

The next set of blocks in the process model comprises the ROI analysis. The first task is to isolate the effects of the program from other influences. This step uses one or more methods to separate the influence of HR/learning from other factors that had an impact on the business measure. Next, business impact data are converted to monetary value and annualized to present an annual monetary benefit for the program. One-year values are used for short-term solutions; multiple-year values are used for more extensive, long-range initiatives.

The fully loaded costs are captured to reflect both direct and indirect costs of the program. Monetary benefits and the costs are compared in the calculation of the actual ROI. Intangible benefits are identified throughout the process and are tabulated after an attempt is made to convert them to monetary value. If an intangible item cannot be converted to monetary value credibly with minimal resources, it is left as an intangible measure and becomes the sixth type of data.

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Responses

The ROI quiz presents 16 of the most often cited misconceptions of ROI. The remainder of this article addresses each of these issues. For those anxious to know how they fared, scoring is found at the end of the article.

1. *The ROI Methodology collects just one data item, a financial ratio, expressed as a percentage.* **False**. It would be unfair and misguided to evaluate the success of an HR/learning program on the basis of one financial measure. The ROI Methodology, as typically used and practiced, collects six types of measures as the value chain of impact from an HR/learning program is developed. The six types of measures include:

    a. Reaction and planned action
    b. Learning
    c. Application and implementation
    d. Business impact
    e. Return on investment
    f. Intangible benefits

    The ROI Methodology, utilized in most ROI applications, collects these measures, leaving a balanced profile of success including qualitative and quantitative data, often from different sources, collected at different time frames.

2. *A program with monetary benefits of $200,000 and costs of $100,000 translates into a 200% ROI.* **False**. A typical misunderstanding about ROI is the actual formula. The benefit cost ratio, in this example, is defined as:

$$\text{BCR} = \frac{\text{Total Monetary Benefits}}{\text{Total Program Costs}} = \frac{\$200{,}000}{\$100{,}000} = 2{:}1$$

A benefit cost ratio of 2:1 means that for each dollar invested, two dollars are returned. In terms of actual ROI, however, the formula compares net program benefits to program costs:

$$\text{ROI} = \frac{\$200{,}000 - \$100{,}000}{\$100{,}000} \text{ X } 100 = 100\%$$

The net monetary benefits of $100,000 divided by the program costs, multiplied by 100 results in an ROI of 100%. This means that for each dollar invested, the dollar is recovered and another dollar is returned. Unfortunately, some individuals use the benefit cost ratio, multiply it by 100, and report it as an ROI. This calculation is consistent with the traditional ROI formula used in finance and accounting which compares earnings (net monetary benefits) to investment (program costs).

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3. *The ROI Methodology is a tool to strengthen/improve the HR learning/development process.*
True. One of the most important benefits of the ROI Methodology is that it forces organizations to change their approach to, and perspective of, HR, learning and development. A comprehensive measurement system, such as the ROI Methodology, reveals the inadequacy of the current systems and suggests a results-based focus is needed for many programs. These two issues often lead to completely revamping the needs analysis (to determine if a program is actually needed), the design and development of programs (to focus more on specific improvements), the facilitation and coordination(to concentrate on on-the-job application and impact), and the expectations of participants (to develop clear expectations about the results of programs). Understanding these issues can cause an organization to completely change existing programs, eliminate those not adding value, and prevent others from being developed in the first place. It keeps the entire HR and learning systems process focused on adding value to the organization, both in the short term and long term.

4. *After reviewing a detailed ROI impact study, senior executives will usually require ROI studies on all programs.*
False. This is a concern for most HR and learning professionals. Based on our work with dozens of top-executive teams, we have found that executives rarely ask for impact studies on a significant number of programs. When an impact study is presented and the results are understood, executives quickly begin to appreciate the resources required to collect, process, analyze, and report data. They also see the ROI Methodology as a valuable tool to understand the contribution of HR and learning, enabling them to make critical decisions and to take action. These issues usually cause executives to require the use of the Methodology selectively, thereby avoiding the need for additional resources in this function, and allowing them to use the data they have.

5. *ROI impact studies should be conducted very selectively, usually involving 5-10% of programs.*
True. Most best-practice organizations conduct ROI studies on approximately 5-10% of programs. This does not mean that the other 90-95% of the programs are not evaluated; their analysis stops at lower levels of evaluation. As the best-practice firms report, this level of participation is adequate to tackle those programs where it makes economic, operational, and strategic sense to use this powerful tool.

6. *While it may be a rough estimate, it is always possible to isolate the effects of a program on impact data.*
True. This is one of the most difficult issues, but must be addressed in each instance for a study to have the credibility necessary for an impact and ROI analysis. Without isolating the effects of HR or learning, there is no direct linkage to a business measure. When other more credible methods cannot be used, an estimate is made from those individuals who understand the process best. These individuals are the most credible source and, often, represent the individual whose performance is in question. An estimate can always be taken from this group, because after all they are the experts. But because this it is an estimate it is adjusted for the error of the estimate. Consequently, it can always be tackled. There are actually ten methods that can be used to isolate the effects of HR and learning. Figure 4 shows a summary of the categories.

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Isolating the Effects of Learning

Method[1]	Best Practice Use[2]
1. Comparison Group Analysis	35%
2. Trend/Forecasting Analysis	20%
3. Expert Estimation	50%
4. Other	20%

[1] Listed in order of credibility
[2] Percentages exceed 100%

Figure 4

The most credible method is comparison group analysis, which is often referred to as a control group. Trend lines and forecasting account for another 20% of best practice use. Expert estimation can always be done and accounts for about 50% of the studies that have been published on best practice organizations.

7. *A program costing $100 per participant, required for job related software, is an ideal program for an ROI impact study.*
   False. This program is not appropriate for an ROI calculation because it is inexpensive and mandatory. The ROI Methodology should be used very selectively. It is appropriate for programs that:

   - Have a very long life cycle,
   - Are very closely aligned with key operational issues or strategic goals,
   - Are very expensive, highly visible, or have large target audiences, or
   - Attract the attention of management with their concerns about accountability.

8. *Data can always be converted to monetary value, credibly.*
   False. The key word is “credibly.” Data can always be converted to money, but the data may not always be credible. Some of the techniques used can be summarized into four major categories, as shown in Figure 5.

Converting Data to Money

	Credibility	Resources Needed
Standard Values	High	Low
Records/Reports Analysis	High	High
Databases	Moderate	Moderate
Expert Estimation	Low	Low

Figure 5

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Sometimes the sources are not credible for very soft data items, such as recruiting image, technology leadership, conflicts management, and team work. For these kinds of measures, it may not be possible to convert to monetary value credibly. Therefore, they are left as intangibles.

9. *The ROI Methodology contains too many complicated formulas.*
   False. Only one mathematical formula is used in the ROI Methodology, describe earlier. That formula, net benefits divided by costs expressed as a percentage, is a simple term – comparing cost to monetary benefits. However, determining what should be included in costs and benefits often creates complexity because there are so many different setting and issues involved. The numerator of the equation (benefits) creates the greatest confusion. Converting data to monetary value can often be a challenge, especially when there are no standard values. Ultimately it comes down to the total benefits related directly to the program.

10. *The ROI Methodology can be implemented for about 3-5% of my HR learning budget.*
    True. Based on benchmarking best practice firms, the ROI Methodology, described earlier, can be implemented in about 5-10% of the programs at a total cost of 3-5% of the total HR or learning budget. This is direct budget, excluding indirect items. This information is based on benchmarking with organizations using the Methodology. In the USA, most organizations spend an average of approximately 1% on measurement and evaluation. Thus, the challenge is to move to the 3-5% level. Incidentally, some organizations have migrated to this level of expenditure, utilizing a portion of the savings generated from the use of the ROI Methodology. For example, when an impact study reveals improvements in efficiencies, reduction in costs, or avoidance of costs (by not implementing a particular program), a portion of those savings is placed in the measurement and evaluation budget. Thus, over a period of time, the funding can be developed from the use of the Methodology itself.

11. *ROI is not future oriented; it only reflects past performance.*
    False. ROI forecasting is possible and is routinely implemented in many organizations. In some situations, the senior management team is unwilling to implement a program unless there is a projected ROI. In others, forecasting is used as part of the initial analysis, verifying a potential payoff of a proposed program or solution. Forecasting is critical to the development of the ROI Methodology. The same principles apply to forecasting as in a follow-up ROI evaluation; however, the forecasted ROI value is less accurate than in a follow-up study.

12. *ROI is not possible for soft skills programs.*
    False. Most of the published impact studies represent ROI calculations for soft skills programs, with perhaps the most common study involving leadership development. If implemented properly, a soft skills program can be connected to hard data. A business need should provide the rationale for implementing the program, at least for major soft skills efforts. Figure 6 shows the connection between needs assessment and evaluation. Business needs represent the starting point for the initial needs assessment and analysis, which turns into business impact on the follow-up evaluation. Thus, a specific problem may be solved by an HR program or solution. When this is the case, the soft skills effort will be connected directly to the hard data measure through the more detailed front-end analysis.

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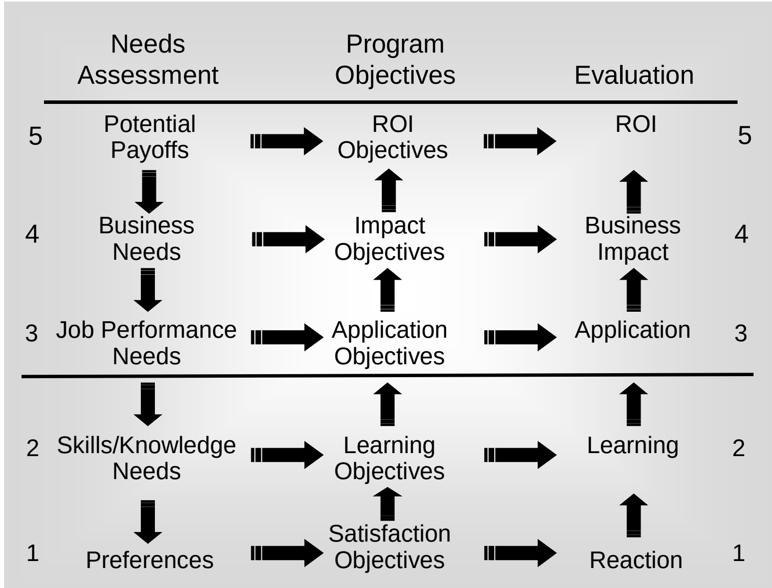

Figure 6

13. *If an ROI impact study, conducted on an existing program, shows a negative ROI, the client is usually already aware of the program's weaknesses.*
True. This conclusion is based on both the reality of the workplace and experience with impact studies. Some HR and learning executives have this concern: If a program is not adding value, the last thing I should do is a publish report about it. However, if a program is not adding value, clients (individuals who support, fund, and initiate the program) often know that it is not adding value. Although they may not have data that shows a negative ROI, clients are concerned, nevertheless, about the value of the program. Their reaction is translated into reduced enrollments, less participation, or perhaps a request for the program to be diminished or eliminated. The proactive approach is to determine if the program is adding value – before the client needs it or asks for it. If it is not adding value, the necessary adjustments should be made. It may be a welcomed gesture for most clients when the HR or learning staff takes the initiative.

14. *The best time to consider an ROI evaluation is three months after the program is competed.*
False. Ideally, the evaluation should be considered at the time of the conception of the program ideally. The longer the issue of evaluation is postponed the more difficult it is to collect data. The study will deteriorate because of lower quality and quantity of data. As Figure 7 shows the time to consider evaluation is early and often in the process.

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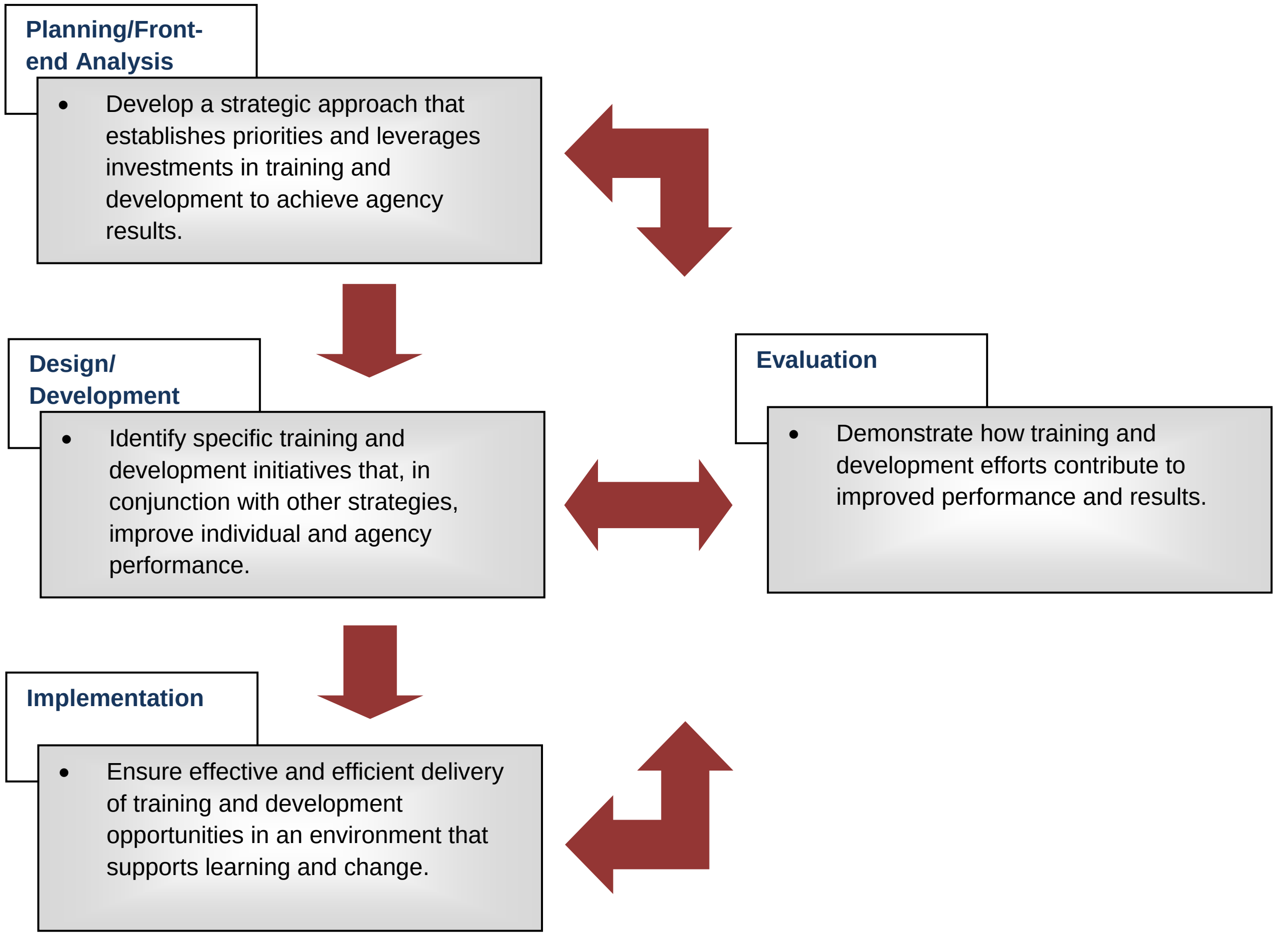

Figure 7. Source: U.S. Government Accounting Office. (2003). <I>Human Capital: Guide for Strategic Training and Development Efforts. GAO-03-893G. Washington, DC: GAO.

15. *The ROI Methodology is a process improvement tool and not a performance evaluation tool for the HR, learning, and development staff.*
True. The HR, learning, and development staff must understand this issue from the very beginning. No one wants to be involved in a process that is going to ultimately cause them embarrassment, negative performance reviews, or even the loss of a job. The staff's willing participation is critical to the success of the ROI Methodology. The best way to earn their willing involvement is for them to understand how it works and realize that it's a process improvement tool. The ROI Methodology determines how well a program is working so that it can be supported and reinforced if it is effective or adjusted and redesigned if it is not. In rare occasions, the Methodology will cause a program to be eliminated because it cannot be improved. The HR or learning team learning and development staff members should not suffer the consequences of an unsuccessful program at least early in the implementation. Eventually, this tool could be a factor in performance evaluation, but only after the process has been utilized and refined.

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16. *If senior executives are not asking for ROI, there is no need to pursue the ROI Methodology.*
False. It is very dangerous to wait for top executives to require ROI. When an HR or learning executive makes the comment, "We don't use ROI because our top executives haven't asked for it", it's equivalent to having your head in the sand. Several underlying pitfalls are associated with this thinking:
    - Executives may desire this information, but haven't requested it because they may not know that it can be developed, credibly.
    - Executives often haven't asked for it because they think it's unavailable, the staff doesn't know how to do it, or the staff refuses to do it. (Neither of these perceptions is necessarily a positive reflection on staff.)
    - Executives may ask for ROI only as a last resort before deciding to curtail HR expenditures, trim budgets, or refuse funding requests.
    - The position taken by the CEO might change. A very supportive CEO who doesn't require ROI Methodology may change his or her thinking. Paradigms are shifting constantly.
    - Many executives are now requiring this Methodology in areas where they didn't require it before because there's so much pressure on financial resources and accountability of all processes has come under question.
    - Finally, a change at the top may bring a new CEO who now demands this type of accountability, quickly. They may not want to implement new programs without some method to show results. They often don't want to wait until the processes are implemented and systems are changed before developing ROI. This is particularly a critical issue when the Chief Financial Officer becomes the Chief Executive Officer.

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 the ROI certification

This simple quiz and the explanations have attempted to expose some of the myths and mysteries about ROI. The ROI Methodology is being routinely implemented by many organizations and it is adding tremendous value. It can be an important part of the measurement mix and should be considered, at least, with an open mind. More importantly, think through the issues and avoid some of the stereotyping or myths about ROI.

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