

12 Chapter

Measuring ROI in Effective Meeting Skills

TechnoTel Corporation

Long, meaningless meetings can seriously impair workplace productivity. This case study presents the benefits that can be achieved by reducing the length of meetings, the number of meetings, and the number of meeting participants. The program evaluated is a two-day workshop intended to teach managers, supervisors, and project leaders skills in planning, managing, and facilitating the meeting process. A needs assessment, which included dialogue between the Chief Learning Officer and the President of Manufacturing led to the identification of application and business impact measures. Pre-program data were collected using a meeting profile worksheet, and post-program data were collected using a comprehensive questionnaire. Participant estimates were used to isolate the effects of the workshop on the time savings resulting from less time in meetings, fewer meetings, and fewer people attending meetings. Standard values of time (salary and benefits) were used to convert data to monetary values. Fully-loaded program costs were developed.

BACKGROUND

TechnoTel Corporation is a maker of telecommunications equipment. Although the firm has twenty-two locations, this case study takes place in Frankfurt, Germany. A comprehensive needs assessment targeting managerial and supervisory competencies revealed a lack of effective

This case was prepared to serve as a basis for discussion rather than to illustrate either effective or ineffective administrative and management practices. The authors, dates, places, names and organizations may have been disguised at the request of the author or organization.

meeting skills, including the ability to prepare, conduct, facilitate, and follow up on meetings. This needs assessment was initiated by a conversation between the Chief Learning Officer (CLO) and the President of Manufacturing in Frankfurt.

The President of Manufacturing explained to the CLO his concerns that the learning function placed too much emphasis on activity. An example of his observation was presented in a meeting with the CEO during which the CLO reminded executives how many programs the learning function was developing. He explained to her in manufacturing the focus is on efficiencies – building more with less while improving quality.

President: In the manufacturing division we focus on efficiencies—building more with less as well as ensuring quality. We recognize that, while the organization is doing well economically, there has to be some way to manage our resources. We want to make sure that we are getting the most for the investments we make, even when we make them in our people.

But, I look around and I see waste—time being one of the biggest waste factors. Meetings and training appear to be unproductive.

For example, my managers and supervisors, as good as they are technically, cannot run an effective meeting. They invite everyone they can think of, with half of the participants sitting around looking at their watches, checking BlackBerries, or configuring process design models. When the meeting is underway, there is no structure and no agenda. The meetings invariably run over the time allotted. On top of this, there is a meeting on everything. My team spends more time meeting than any other group, only to leave the meetings and do nothing as a result of them.

His concern was the time wasted in meetings. According to the president, there were:

- Too many meetings
- Too many people attending the meetings
- Meetings were too long

He explained his concern that time in meetings meant money wasted and productivity lacking. While no definitive dollar amount was known, it was estimated that the cost of lost productivity due to time wasted was in the hundreds of thousands in U.S. dollars per year.

The conversation set the stage for further investigation as to why so many meetings were being held, why too many people were attending the meetings, and why the meetings were too long. With clear instructions not to disrupt productivity any more than necessary, the president agreed to allow the CLO to delve deeper into the cause of the meeting problem by asking some of his staff. Three focus groups, each including eight managers, supervisors, project leaders, and/or employees who participate in meetings on a routine basis, would be conducted to find the cause of the business problems identified by the president.

Focus Groups

Prior to the focus group selection, the president initiated a communiqué explaining that the learning function was in the process of helping him identify the cause of so many meetings in the division. It was also communicated that if a cause was identified, consideration would be given to a variety of solutions. The decision as to which solution would be made based on cost and convenience, as well as potential effectiveness.

Each focus group was scheduled at the plant for a maximum of two hours. Participants were randomly selected from 150 managers, supervisors, and project leaders, along with the employees at large, to participate in the focus group, then randomly assigned to the focus group in which they would participate. In some cases a person identified to participate in the focus group process would have a conflict and could not participate at the designated time. When this occurred, they would swap their time with someone scheduled for a more convenient time slot. In those few cases when a selected participant was unwilling, a new participant was selected.

The focus group was structured, focusing specifically on the cause of each of the business problems identified by the president. Each business problem was written on separate pages on a flip chart. Each focus group participant was given a stack of large Post-it® Notes.

The facilitator explained the purpose of the focus group, then flipped the page on the flip chart to the first business problem:

- There are too many meetings

Each participant was given approximately two minutes to comment on this issue. Then the facilitator wrote a question on a second flip chart:

- What is happening or not happening on the job that is causing there to be too many meetings?

Focus group participants were asked to write down their observations on the Post-it Notes, one per note. Then the facilitator would ask them to post their observation on the flip chart. The facilitator, along with participants, organized the responses into meaningful categories and discussed them to ensure clarity in the meaning of the observations.

The facilitator then wrote another question on the flip chart:

- What knowledge, skills, or information are needed in order to change what is happening or not happening on the job that is causing there to be too many meetings?

Again, the focus group participants wrote their answers on the Post-it Notes and placed them on the flip chart. The responses were again categorized.

A final question was written on the flip chart:

- How best can the knowledge, skills, and information identified be presented so that they will change what is happening or not happening on the job that is causing there to be too many meetings.

Once again, participants provided their responses, and the responses were posted and grouped into meaningful categories. This process of identifying job performance needs, learning needs, and preferences for acquiring knowledge was repeated for each of the other two business needs: 1) too many people attending meetings and 2) meetings are too long.

The facilitator, along with the help of the CLO, reviewed the findings and developed a summary table that was presented to the president along with the proposed solution. Table 12-1 presents the summary of the focus group results.

Table 12-1. Summary of Needs Assessment

Level of Need Needs	
Economic Need	What is the economic opportunity or problem? Specific dollar amount unknown. Estimate hundreds of thousands in U.S. dollars due to time wasted in meetings.
Business Need	What are the specific business needs? · Too many meetings · Too many people attending meetings · Meetings are too long
Job Performance Need	What is happening or not happening on the job that is causing the business need? · Meetings are not planned · Agendas for meetings are not developed prior to the meeting · Agendas for meetings are not being followed · Consideration of time and cost of unnecessary meetings is lacking · Poor facilitation of meetings · Follow-up on actions resulting from the meeting is not taking place · Conflict that occurs during meetings is not being appropriately managed · Proper selection of meeting participants is not occurring · Good meeting management practices are not implemented · Consideration of cost of meetings is not taking place
Learning Need	What knowledge, skill, or information is needed in order to change what is happening or not happening on the job? · Ability to identify the extent and cost of meetings · Ability to identify positives, negatives, and implications of basic meeting issues and dynamics · Effective meeting behaviors
Preferences	How best can this knowledge, skill, or information be communicated so that change on the job occurs? · Facilitator-led workshop · Job aids and tools provided · Relevant and useful information a requirement

Solution

The summary of needs and a proposed two-day workshop were presented to the president. Program objectives suggest that upon completion of the workshop, participants would have:

- The tools and techniques to prepare, conduct, and follow up on meetings
- An understanding of the human dynamics of meetings
- Strategies for participating in or leading meetings more effectively

In addition to these program outputs, participation in the program was expected to lead to shorter meetings, fewer meetings, and a fewer number of participants attending meetings.

Program Design

To meet the identified objectives, the two-day Effective Meeting Skills workshop included a variety of knowledge-based exercises as well as skill-based practices and tasks. Table 12-2 presents the complete outline for the program.

To assist the transfer of skills to the job, a brief action plan was required so that participants could identify specific new and enhanced behaviors and track their progress as they conduct future meetings. Although an important part of the program, the action plan was used primarily to assist participants in their tracking actual use of knowledge and skills.

Along with the action plan, a meeting profile was designed into the program to capture the current level and cost of meetings. It also provided baseline data for comparing improvements resulting from the program. Table 12-3 presents the meeting profile.

Target Audience

While the target audience would include all managers, supervisors, and project leaders throughout TechnoTel, the more immediate need was in the Manufacturing Division. The president was interested in conducting the program for 150 of his managers. However, due to the concern about productivity interruption and the president's skepticism toward another training program, he wanted to ensure that the investment was achieving some return. He committed to allow three groups of twenty-four participants to be targeted for the comprehensive evaluation. Understanding that the benefits of the program would be reported for only the seventy-two participants and that the program costs would reflect only the costs of the seventy-two participants, the president saw value in the process and wanted

confidence that training was more than an activity. He also made it clear that the value returned should exceed the investment being made in the program.

Table 12-2. Outline for the Effective Meetings Program

1.	Meeting activity profile completed by participants
2.	Definition for an effective meeting
3.	Criteria for effective meetings
4.	Causes behind ineffective meetings
5.	Tips for conducting effective meetings
a.	Determine purpose
b.	Recognize the type of meeting
c.	Arrange seating appropriately
d.	Set the agenda
e.	Assemble a set of all appropriate attendees
f.	Establish ground rules
g.	Bring closure and plan follow-up
6.	Skill practices
7.	Key roles in meetings
8.	Meeting tasks
9.	The human function in meetings
10.	Debriefing model
11.	Brainstorming
12.	Decision making
13.	Encouraging participation
14.	Handling group dynamics
15.	Dealing with difficult participants
16.	Providing feedback
17.	Handling conflict
18.	Meeting simulations/exercises
19.	Action plan requirements

Table 12-3. Meeting Profile

Current Meeting Activity (Month Before Program)	
• Number of meetings chaired each month	_____A
• Average number of individuals attending each meeting each month	_____B
• Average length of time for each meeting (in hours)	_____C
Total Time Consumed in Meetings (A × B × C)	_____D
• Average hourly compensation of attendees (salary plus benefits)	_____E
Total Meeting Costs (D × E)	_____F

Evaluation Need

The nature of the business and the president's interest in accountability led the president to request a comprehensive evaluation of the program. Not only was he interested in whether or not the program resulted in reduced meetings and fewer participants, but expressed interest in whether the benefits of his putting his people through the program exceeded the costs.

The president's desire to ensure a positive return on his investment, as well as the corporate learning department's desire to gather data to improve the program overall, led the learning staff's plan of a comprehensive evaluation. Therefore, the learning staff implemented the ROI Methodology in its entirety.

EVALUATION METHODOLOGY

The ROI Methodology had been integrated into TechnoTel's corporate learning function two years prior to the launch of the Effective Meeting Skills program. TechnoTel has successfully sustained the use of this process because it:

- Reports a balanced set of measures
- Follows a methodical step-by-step process
- Adheres to standards and philosophy of maintaining a conservative approach and credible outcomes

The ROI Methodology categorizes evaluation data into five levels as shown in Table 12-4. These five levels tell the complete story of program success. The five levels balance economic impact with measures that address individuals' perspectives of the program and success with the transfer of learning.

Table 12-4. The Evaluation Framework

Level	Measurement Focus
1. Reaction, Satisfaction and Planned Action	Measures participant satisfaction with the program and captures planned action
2. Learning	Measures changes in knowledge, skills, and attitudes
3. Application and Implementation	Measures changes in on-the-job behavior
4. Impact	Measures changes in critical business measures
5. Return on Investment (ROI)	Compares the monetary benefits to the costs

Level 1: Reaction and Planned Action

This initial level of evaluation is the most commonly used within the TechnoTel learning environment. Reaction and satisfaction data are collected using a standard end-of-course questionnaire. Planned actions are often collected using action plans, however, a question asking the participants' intent to use what they learned is included on the end-of-course questionnaire and suffices for the planned action measure when action plans are not used.

The TechnoTel learning environment is interested in a variety of measures at Level 1, some of which are relevant only to the learning staff and their efforts to improve the learning process. These measures address course design and delivery as well as participant perception of the learning environment. Because management is interested in potential use of all programs, TechnoTel's Level 1 evaluation also answers five important questions:

1. Is the program relevant to participants' jobs?
2. Is the program important to participants' jobs?
3. Do participants intend to use what they learned in the program?
4. Did the program provide participants with new information?
5. Would participants recommend the programs to others?

An acceptable rating, using a 1 to 5 rating scale (1 = Worst Case; 5 = Best Case), for all TechnoTel courses is 4.0 or above. Any measures that fall below these ratings are flagged and actions are taken to improve them in future courses.

Level 2: Learning

Participant understanding of the knowledge and skills taught in a program is imperative to their ability to change behavior. Learning measurement at TechnoTel takes place during the program through a variety of techniques such as tests, facilitator assessment, peer assessment, self-assessment, observation, and reflective thinking with documentation. The questions that TechnoTel strives to answer when measuring learning are:

1. Do participants understand what they are supposed to do and how to do it?
2. Are participants confident to apply their newly acquired knowledge and skills when they leave the classroom?

Level 3: Application and Implementation

For many programs, TechnoTel's supervisors and managers are interested in what participants do with what they learn. When this is the case, programs are evaluated at Level 3 using a variety of techniques including self-administered questionnaires, 360-degree feedback, observations, focus groups, and interviews. Because there is more to learning transfer than just attending the program or course, it is important to TechnoTel to gather data related to how the organizational system (management, technology, and so forth) supports the transfer of training. With these considerations, three basic questions are answered at Level 3 for some TechnoTel learning initiatives:

1. How much have participants changed their approach, behavior, or performance?
2. If they are applying their knowledge and skills, what is supporting their effort?
3. If they are not applying their knowledge and skills, why not?

Level 4: Impact

For many programs TechnoTel is interested in impact on output, quality, cost, and time-measures. For these programs, the organization may also want to know how programs influence customer satisfaction and employee satisfaction—measures that are critical to organizational success but not monetized, only tracked using corporate metrics. The ultimate question answered at Level 4 is, “So what?” By answering this basic question, stakeholders gain an understanding of the consequences of participant application of newly acquired knowledge and/or skill.

Level 5: ROI

This final measure of success answers the question: “Do the monetary benefits of the program exceed the costs?”

For some programs, the organization is not interested in calculating ROI. But for programs that are costly or high profile, that drive business impact, or that are of particular interest to management, ROI is important. A standard ROI target of 25 percent is set for programs being evaluated to this level. This represents a slightly higher ROI than the ROI being achieved by other investments made by TechnoTel.

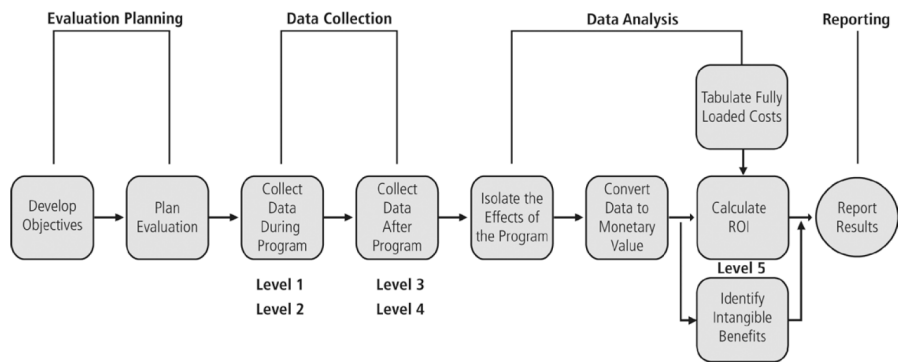
The balanced set of measures that is yielded by answering the key questions posed at each level of evaluation provides TechnoTel's corporate

learning department a complete story of program success. Through this story, the department not only improves the immediate learning process, but also enhances how the system as a whole works to ensure successful transfer of learning and the achievement of desired outcomes. TechnoTel uses all of this information in combination with the ROI metric to determine if a program is a wise investment—either alone or in comparison to alternative programs that may yield similar outcomes.

Step-By-Step Process

The ten steps in the ROI Methodology constitute a methodical process to evaluation. As shown in Figure 12-1, the evaluation process begins with identifying program objectives and evaluation planning. From there, execution requires that data be collected and analyzed before developing a final report.

Figure 12-1. ROI Methodology™



DATA COLLECTION PROCEDURES

A pragmatic approach to data collection was taken for the evaluation of the Effective Meeting Skills program. Because the cost of the program (as will be described in a later section) was not excessive, the corporate learning department staff determined that the prudent approach for this particular evaluation would be to keep the cost low while ensuring credible results. The data collection process began with a review of the objectives and measures of success, identification of the appropriate data collection methods and the most credible sources of data, and a determination of the timing of data collection.

Program Objectives and Measures

The needs assessment identified the knowledge and skill deficiencies that kept managers from conducting effective meetings. Through the needs assessment process and the design of the Effective Meeting Skills program, specific outputs were defined, as well as specific impact measures that would result if participants applied their newly acquired knowledge and skills. Measures of success at Level 1 are standard (4.0 out of 5.0), as is the measure of success at Level 5 (25 percent); measures of success for the other levels of evaluation were dependent on the program or the client expectations. In this case, the president of the division implementing the workshop was interested in improvement in the impact measures; even though he did not specify what improvement he was looking for, he did indicate by his request that the benefits should exceed the cost of the program. Therefore, the improvement must be such that when converted to monetary value a positive ROI was achieved. Table 12-5 summarizes the program's objectives and the measures used to determine success.

Data Collection Methods

Data were collected for this evaluation using multiple methods: end-of-course questionnaire, action plans, meeting profile, written test, skills practice observation, and a follow-up questionnaire. The successful meeting profile was designed into the program (see Table 12-3). It was used at the beginning of the program to capture the current level and costs of meetings. When completed, this exercise showed participants how much time they spent in meetings and the overall cost of meetings. These data served as baseline for comparing improvements identified in the follow-up questionnaire. The written test measured the improvements in knowledge of basic issues and meeting dynamics, and skill practices measured success in using effective meeting skills.

The action plan was an important part of understanding how participants applied what they learned when they returned to the job; however, the follow-up questionnaire was the primary data collection method for Level 3 and Level 4 follow-up data. Table 12-6 presents the complete follow-up questionnaire.

Table 12-5. Objectives and Measures of Success for the Effective Meeting Skills Program

	Broad Objectives	Measures
Reaction Objectives	Positive reaction and planned action with the knowledge and skills presented in the course	Ranking of 4 out of 5 on: • Relevance • Importance • Intent to use • New information • Recommendation to others
	Planned action	Three different actions to be taken when returning to the job from each participant
Learning Objectives	Ability to identify the extent and cost of meetings	Given cost guidelines, determine the cost of last three meetings
	Ability to identify positives, negatives, and implications of basic meeting issues and dynamics	From a list of 30 positive and negative meeting behaviors, correctly identify the implications of each behavior
	Acquisition of effective meeting behaviors	Demonstrate appropriate responses to eight of ten active role play scenarios
Application Objectives	Use of effective meeting behaviors	Reported changes in behavior toward planning and conducting meetings
	Barriers to application	Number and variety of barriers identified
	Enablers to application	Number and variety of enablers identified
Impact Objectives	Shorter meetings	Reported time savings
	Fewer meetings	Reported time savings
	Fewer meeting participants	Reported time savings
	Other benefits related to improvement in productivity	Reported times savings, cost savings, output improvement, quality improvement, project turnaround, etc.
ROI	25%	

Because of their desire to limit the cost of the evaluation, the corporate learning department staff decided on the most feasible methods for data collection. Cost data were developed using company records, and Table 12-7 summarizes the other data collection methods.

Table 12-6. Effective Meeting Skills Follow-up Impact Questionnaire

Are you currently in a people management role/capacity? Yes ☐ No ☐

1. Listed below are the objectives of the Effective Meetings program. After reflecting on this program, please indicate the degree of success in meeting the objectives:

As a result of this program, participants will have:	Failed	Limited Success	Generally Successful	Completely Successful
a. The tools and techniques to prepare for, conduct, and follow up on meetings.	☐	☐	☐	☐
b. An understanding of the human dynamics of meetings	☐	☐	☐	☐
c. Strategies to participate in, and lead or chair meetings more effectively	☐	☐	☐	☐

2. Did you develop and implement an on-the-job action plan for Effective Meetings?

Yes ☐ No ☐

If yes, please describe the nature and outcome of the plan. If not, explain why. _____

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.

	1	2	3	4	5
Interactive Activities	☐	☐	☐	☐	☐
Groups Discussions	☐	☐	☐	☐	☐
Networking Opportunities	☐	☐	☐	☐	☐
Reading Materials/Video	☐	☐	☐	☐	☐
Program Content	☐	☐	☐	☐	☐

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

Yes ☐ No ☐

Please explain. _____

5. Please indicate the degree to which you have changed the use of the following items/actions/ behaviors enhanced as a result of your participation in **Effective Meetings**:

	No Change	Little Change	Some Change	Significant Change	Very Much Change	No Opportunity To Use Skill
a. Participating Effectively in Meetings	☐	☐	☐	☐	☐	☐
b. Avoiding Meetings Unless they are Necessary	☐	☐	☐	☐	☐	☐
c. Minimizing the Number of Participants Attending Meetings	☐	☐	☐	☐	☐	☐
d. Setting Objectives for Meetings	☐	☐	☐	☐	☐	☐
e. Developing an Agenda for Each Meeting	☐	☐	☐	☐	☐	☐
f. Controlling Time of Meetings	☐	☐	☐	☐	☐	☐
g. Enhancing Participant Satisfaction in Meetings	☐	☐	☐	☐	☐	☐
h. Arranging the Meeting Site for Maximum Effectiveness	☐	☐	☐	☐	☐	☐
i. Scheduling the Optimum Time for Meetings	☐	☐	☐	☐	☐	☐
j. Communicating the Ground Rules for Meetings	☐	☐	☐	☐	☐	☐
k. Assigning Appropriate Roles for Meeting Participants	☐	☐	☐	☐	☐	☐
l. Reaching Consensus in Meetings When Appropriate	☐	☐	☐	☐	☐	☐
m. Listening Actively to Meeting Participants	☐	☐	☐	☐	☐	☐
n. Encouraging Participation in Meetings	☐	☐	☐	☐	☐	☐
o. Using Brainstorming in Meetings When Appropriate	☐	☐	☐	☐	☐	☐
p. Dealing with Difficult Meeting Participants	☐	☐	☐	☐	☐	☐

Table 12-6. Effective Meeting Skills Follow-up Impact Questionnaire (continued)

q. Providing Feedback to Meeting Participants	☐	☐	☐	☐	☐	☐
f. Handling Conflict in Meeting	☐	☐	☐	☐	☐	☐
g. Keeping the Meeting on Focus	☐	☐	☐	☐	☐	☐
h. Accomplishing Meeting Objectives	☐	☐	☐	☐	☐	☐
u. Evaluating the Meeting Process	☐	☐	☐	☐	☐	☐
v. Implementing Action Plans	☐	☐	☐	☐	☐	☐
w. Planning a Follow-up Activity	☐	☐	☐	☐	☐	☐

6. List the five (5) **Effective Meeting** behaviors or skills you have used most frequently as a result of the program.

7. What has changed about your meeting activity profile as a result of this program? (Fewer meetings, fewer participants, shorter meetings, etc.)

8. Please estimate the following monthly time saving measures. Use the most recent month compared to the month before attending this program. Provide only improvements directly related to this program and only when the time saved is used productively.

- ☐ Number of meetings avoided each month with improved planning and analysis

- ☐ Average time saved per meeting per month (in hours)

- ☐ Average number of participants reduced per meeting per month

9. What level of confidence do you place on the above estimations? (0% - No Confidence, 100% = Certainty) _____ %

10. Please identify any specific accomplishments/improvements that you can link to this program (on time schedules, project completion, response times, better decisions, more ideas from group, etc.)

11. What specific value in US Dollars can be attributed to the above accomplishments/improvements? Use first year values only. While this is a difficult question, try to think of specific ways in which the above improvements can be converted to monetary units. Along with the monetary value, please indicate the basis of your calculation.

\$ _____

Basis _____

12. What level of confidence do you place on the above estimations?

(0% - No Confidence, 100% = Certainty) _____ %

13. Other factors often influence improvements in performance. Please indicate the percent of the above improvement that is related directly to this program. _____ %

Please explain. _____

14. Do you think the **Effective Meetings** program represented a good investment for Techno Tel?

Yes ☐

No ☐

Please explain. _____

Was it a good investment of your time?

Yes ☐

No ☐

Please explain. _____

Table 12-6. Effective Meeting Skills Follow-up Impact Questionnaire (continued)

15. Indicate the extent to which you think the *Effective Meetings* program has influenced each of these measures in your work unit, department, or business unit:

	No Influence	Some Influence	Moderate Influence	Signif- icant Influence	Very Much Influence
a. Productivity	☐	☐	☐	☐	☐
b. Customer Response Time	☐	☐	☐	☐	☐
c. Cost Control	☐	☐	☐	☐	☐
d. Employee Satisfaction	☐	☐	☐	☐	☐
e. Customer Satisfaction	☐	☐	☐	☐	☐
f. Quality	☐	☐	☐	☐	☐
g. Other _____	☐	☐	☐	☐	☐

16. What barriers, if any, have you encountered that have prevented you from using skills or knowledge gained in this program. Please explain, if possible.

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

18. What additional benefits have been derived from this program?

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

20. Other Comments:

Table 12-7. Data Collection Methods

	Level 1	Level 2	Level 3	Barriers / Enablers	Level 4	Costs
End-of-Course Questionnaire	X					
Meeting Profile		X				
Written Test		X				
Skill Practice Observation		X				
Action Plan	X		X			
Questionnaire			X	X	X	
Company Records						X

Data Sources

Data source selection is a critical step in data collection in that the source drives the credibility and validity of the study. Who knows best about the measures being taken? The primary source of data for the effective meeting skills evaluation was the participants. The managers and project leaders participating in the workshop know the extent to which they apply their knowledge and skills; they are the people who plan and lead the meetings; they are the people who recognize the cost of too many unproductive meetings (they are the ones calling the meetings). Although it may have been valuable to administer surveys to the professional staff participating in the meetings, this step would have added additional cost to the data collection process. The information they would have provided would have been valuable, but the perceived value of their input did not appear to outweigh the time and cost involved in collecting and analyzing the additional data. It was decided that the participants would serve as the source of data for this evaluation.

While the program was implemented to all 150 managers and supervisors, the president agreed to allow 72 people (three groups) to participate initially

in the evaluation. This limitation would save cost and time of evaluation and would provide the president the data he needed to make a fair assessment of the success of the program.

Data Collection Timing

When conducting a comprehensive evaluation such as that completed for the Effective Meeting Skills workshop, data is collected at two different timeframes: Levels 1 and 2 data are collected during the program, and Levels 3 and 4 data are collected after participants have had time to apply knowledge and skills on a routine basis. It was determined that, given the type of skills being developed in the Effective Meeting Skills program and the numerous opportunities managers have to apply the skills, three months would be ample time for the acquired skills to be internalized and produce results. Therefore, three months after completing the program, participants would receive the follow-up questionnaire.

Table 12-8 presents the complete data collection plan. The corporate learning staff presented the data collection plan and the ROI analysis plan (described in the next section) to the division president for concurrence prior to execution.

Success with Data Collection

A data collection administration strategy is important for ensuring that the appropriate amount of data is provided. In the case of the Effective Meeting Skills workshop, the administrative strategy consisted of four primary actions:

1. The evaluation strategy was presented at the beginning of the program.
2. The facilitators reinforced the need for participants to respond to the follow-up questionnaire at the end of the program.
3. The division president signed a letter that was distributed three days prior to the questionnaires being mailed.
4. The questionnaire did not require that participants include their name or other demographic information; therefore, respondents remained anonymous.

All participants responded to the Level 1 and 2 evaluations; the follow-up for Levels 3 and 4 proved to be challenging, however. The overall response rate was 67 percent (48 respondents), which was satisfactory to the

evaluation team and the division president. Unfortunately, only 43 percent (31 respondents) of the participants provided useable data on questions 8, and 9 (see Table 12-6). These two questions were directly related to follow-up on the impact measures. With the understanding that the results would reflect only that which occurred for those responding, the division president was satisfied with the response rate.

DATA ANALYSIS PROCEDURES

Data analysis comprises five key steps, each of which was carefully considered during the evaluation of this workshop:

1. Isolating the effects of the program
2. Converting data to monetary value
3. Tabulating fully loaded costs
4. Identifying intangible benefits
5. Comparing the monetary benefits to the costs.

Isolating the Effects of the Program

This step of the ROI Methodology answers the question, “How do you know it was your program that influenced the measures?” Isolating the effects of the program considers all other variables that may have influenced improvement in specific measures of success for a program. Four of the 10 potential techniques were considered for the Effective Meeting Skills workshop: control group, trendline analysis, forecasting, and participant estimations.

Because only 72 of the 150 were being evaluated, it was first suggested that a control group arrangement could be used to isolate the effects of the program. The thought was that the groups not participating in the evaluation process could serve as the control group. After much deliberation, however, it was agreed that it would be difficult to maintain the integrity of the experiment and it would be disruptive.

Participants completed a meeting profile during the program to determine the time, frequency, and participation of meetings along with the costs. To collect similar data from the control group, its members would have to complete meeting profiles, as well. This would not only contribute the contamination of the experiment, but would require additional work for the control group members. It was important to the division president to keep the evaluation low key by not requiring too much additional work and by not disrupting the organization. For these reasons, the control group arrangement was eliminated as an option.

Table 12-8. Data Collection Plan

Program: Effective Meetings **Responsibility:** _____ **Date:** _____

Level	Broad Program Objective(s)	Measures	Data Collection Method/Instruments	Data Sources	Timing	Responsibilities
1	REACTION/ SATISFACTION & PLANNED ACTIONS • Positive Reaction • Planned Actions	• Average rating of at least 4.0 on 5.0 scale on quality, usefulness and achievement of program objectives. • 100% submit planned actions	• End of Course Questionnaire • Completed Action Plans	• Participants	• End of Course	• Facilitator
2	LEARNING • Identify the extent and cost of meetings • Identify positives, negatives and implications of basic meeting issues and dynamics • Acquisition of Effective Meeting Behaviors	• Given cost guidelines, identify the cost of last three meetings • From a list of 30 positive and negative meeting behaviors, correctly identify the implications of each behavior • Demonstrate appropriate response to 8 of 10 active role play scenarios	• Meeting Profile • Written Test • Skill Practice Observation	• Participants	• At the Beginning of Program • At the Beginning of the Program (Pre) • At the End of the Program (Post) • During Program	• Facilitator
3	APPLICATION/ IMPLEMENTATION • Use of Effective Meeting behaviors • Examine the need for a meeting and scrutinize the list of participants invited	• Reported actions to influence more effective meetings • Reported use of effective meeting planning and meeting conduct behaviors	• Action Plan • Questionnaire (For 3 Groups)	• Participants	• 3 Months	• Program Owner

4	BUSINESS IMPACT • Time savings from fewer meetings, shorter meetings, and fewer participants (Hours Savings Per Month) • Variety of Business Impact Measures from more successful meetings	• Time savings • Time savings, cost savings, out- put improvement, quality improvement, project turn- around, etc. as reported	• Questionnaire (For 3 Groups)	• Participants	• 3 Months	• Program Owner
5	ROI Target ROI at least 25 percent	Comments: _____ _____ _____				

Historical data were not available for the primary measure (time savings), so trend line analysis and forecasting were inappropriate as well. The only remaining option was the use of participant estimations for isolating the effects of the workshop on the three impact measures: shorter meetings, reduced number of meetings, and fewer participants attending meetings.

Converting Data to Monetary Value

When moving from Level 4 to Level 5 evaluation, this step is the most critical because it determines the numerator (top number) in the ROI equation. Ten techniques to convert data to monetary value are possible. For this evaluation, however, the technique was apparent. As the outcome measures were all time related, the standard value of hourly compensation (salary plus benefits) for the participant chairing the meeting as well as those attending the meeting was used. If other business measures improved due to the programs, they would be converted to money using participant estimates unless standard values were available.

Tabulating Fully Loaded Costs

To calculate ROI, it is imperative to use the fully loaded costs of the program. Costs categories for the Effective Meeting Skills workshop were:

- Needs Assessment (facilitator time, participant time, materials, refreshments)
- Program fee (facilitator costs, materials, program design and development)
- Travel, lodging, meals
- Facilities
- Participants' salaries and benefits for their time in the classroom
- Evaluation costs

Identifying Intangible Benefits

Intangible benefits are any unplanned benefits derived from the program or any benefits not converted to monetary value. There were many intangible benefits of the Effective Meeting Skills workshop, which will be listed in the Evaluation Results section that follows.

Calculating ROI

The ROI equation compares net benefits (earnings) to the program costs (investment). It can be reported as a BCR by comparing the benefits to the program costs. ROI is well-used within the TechnoTel organization. Managers and professionals alike recognize the acronym for what it is; therefore, to ensure that the corporate learning department speaks the same language as the business, the following equation is used to report ROI:

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

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

A 25 percent ROI target is standard for most programs being evaluated at this level. Because of the nature of the program, the evaluation team and the division president believed this to be a conservative target.

Table 12-9 presents the completed ROI analysis plan. As in the case of the data collection plan, the ROI analysis plan was presented to the division president prior to implementing the evaluation. The division president concurred with the plan.

The ROI Methodology used for evaluating the Effective Meeting Skills program adhered to a set of operating standards or guiding principles as presented in Table 12-10. These Twelve Guiding Principles keep the process consistent and conservative.

EVALUATING RESULTS

The results of the study indicated that the program was successful. Participants enjoyed the workshop, but, even more important, they saw it as relevant and useful. Participants quickly grasped the ability to define meeting costs and began implementing the new knowledge and skills. Although there were some barriers to application, they were minimal. From the perspective of the division president, however, the impact on time spent in meetings was significant; the investment returned positive results.

Table 12-10. 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 alternatives for calculations.
 5. Use at least one method to isolate the effects of the program or 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 improvements for the potential error of the estimates.
 8. Avoid use of extreme data items and unsupported claims when calculating ROI calculations.
 9. Use only the first year of annual benefits in the ROI analysis of short-term solutions.
 10. Fully load all costs of the 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 the ROI Methodology to all key stakeholders.
-

Reaction Data

Level 1 objectives included reaction and satisfaction measures important to improving facilitation, content, and materials. The key measures of interest, however, addressed issues indicating intent to use, including three defined actions to be taken upon return to the job. The measure of success was a minimum score of 4.0 out of 5.0. Results were successful in regard to relevance, importance, intent to use, and willingness to recommend the workshop to others. Only one measure (new information) fell below the 4.0 target. This was anticipated in that most of the concepts were familiar, but the packaging and tools provided a new perspective on the familiar topics.

The participants listed three defined actions they planned to take when returning to the job. The most noted action was implementing the meeting activity profile as a routine tool when reflecting on meetings each month. Also participants indicated they would follow the seven steps to conducting an effective meeting as listed in the program outline (see Table 12-2).

Table 12-9. ROI Analysis Plan

Program: <u>Effective Meetings</u>		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
• Time Savings	• Participant's Estimate	• Hourly Wage and Benefits	• Needs Assessment • Program Fee Per Participant	• Improvement in individual productivity not captured elsewhere • Stress reduction • Improved planning and scheduling • Greater participation in meetings	• Business Unit President • Senior Managers • Managers of Participants • Participants • Training and Development Staff	• Participants must see need for providing measurement • Follow-up process will be explained to participants during program • Three groups will be measured	• Participants will identify specific improvements as a result of meetings being conducted more effectively
• Miscellaneous Business Measures	• Participant's Estimate	• Participant's Estimate - (using standard values when available)	• Travel / Lodging Meals • Facilities • Participant Salaries Plus Benefits • Evaluation Costs				

Learning Data

Level 2 objectives suggested that participants should be able to:

- identify the extent and cost of meetings
- identify positives, negatives, and implications of basic meeting issues and dynamics
- acquire effective meeting behaviors

The meeting profile identifying costs of meetings was successfully completed by participants. They felt comfortable with the tool and indicated the ability to complete similar items during the follow-up. A simple multiple-choice test was administered to ensure that participants understood the basic issue of meetings. The average score on the test was a 92 out of a possible 100.

Exercises and skill practice indicated that participants were equipped with the knowledge and skills to successfully conduct meetings while reducing the cost of meetings by conducting shorter meetings, fewer meetings, and including fewer meeting participants.

Application and Implementation Data

The follow-up evaluation (see Table 12-6) took place three months after the workshop. Questions 4, 5, 6, 16, and 17 related to application of knowledge and skills. The fundamental question with regard to application was Question 5, which assessed how much participants had changed their approach to planning and conducting meetings using the knowledge and skills they learned from the workshop. Table 12-11 summarizes the degree of change in behavior that occurred. For the most part, participants did change their meeting practices; some measures, however, indicated that little change occurred in some areas. Providing feedback to meeting participants (item Q), evaluating the meeting process (item U), and planning follow-up activity (item W), and planning follow-up activity appeared to be the least used skills.

Examining the barriers (Question 16) to the use of the knowledge and skills learned in the workshop shed some light on the reasons why there was less change in some areas than in others. The most often cited barrier was time. Some participants indicated they did not have the time to evaluate the success of the meeting or follow-up with meeting participants; however, others indicated that both of these actions were a valuable part of the meeting process.

Enabling factors (Question 17) supported the use of meeting skills learned in the workshop. The most often cited enabling factors were the job aids and materials participants took with them from the course. The workbook was cited as being the most valuable tool. Some participants indicated that senior management's interest in the tools and the workshop encouraged them to take the application of what they learned seriously.

Impact Data

The intended outcomes of the Effective Meeting Skills workshop were shorter meetings, fewer meetings, and fewer meeting participants. Other measures of improvement were of interest, but the president was specifically interested in the payoff of the program with respect to these measures. By applying the knowledge and skills learned in the workshop, improvement in these three time-related measures occurred. Table 12-12 presents a comparison of the original meeting profile data obtained from participants during the program to the average post-program data. The average amounts taken from Question 8 are subtracted from the average pre-program data to get the average post-program data. Only 31 participants (43 percent) responded to Questions 8 and 9; the average confidence in the estimates for the group responding was 81 percent. The figure shows that the intended outcomes (reduction in the number of meetings, less time spent in meetings, and fewer participants attending meetings) were achieved as a result of the program.

Other measures improved as a result of the program as well. Respondents indicated improvement in overall productivity and quality of the meetings, and six managers placed monetary values on these measures. However, the monetary payoff of the program is based on the time savings from the above measures. The other measures were reported as "other benefits" because they were not as credible as the time savings.

ROI Analysis

The ROI for the Effective Meeting Skills workshop was calculated based on time savings. To calculate the ROI, improvement in time savings due to shorter meetings, fewer meetings, and fewer meeting participants were converted to monetary value and then compared to the costs of the program.

Table 12-11. Level 3 Evaluation Responses

	No Change	Little Change	Some Change	Significant Change	Very Much Change	No Opportunity To Use Skill
A. Participating Effectively in Meetings	0	0	25%	44%	31%	0
B. Avoiding Meetings Unless they are Necessary	0	0	19%	46%	35%	0
C. Minimizing the Number of Participants Attending Meetings	0	0	19%	50%	31%	0
D. Setting Objectives for Meetings	0	0	25%	42%	33%	0
E. Developing an Agenda for Each Meeting	0	4%	27%	44%	25%	0
F. Controlling Time of Meetings	0	0	6%	44%	50%	0
G. Enhancing Participant Satisfaction in Meetings	0	10%	31%	44%	15%	0
H. Arranging the Meeting Site for Maximum Effectiveness	0	0	4%	65%	31%	0
I. Scheduling the Optimum Time for Meetings	0	0	25%	42%	33%	0
J. Communicating the Ground Rules for Meetings	0	4%	27%	44%	25%	0
K. Assigning Appropriate Roles for Meeting Participants	0	0	6%	44%	50%	0
L. Reaching Consensus in Meetings When Appropriate	0	0	13%	52%	35%	0
M. Listening Actively to Meeting Participants	0	0	4%	65%	31%	0

N. Encouraging Participation in Meetings	0	0	25%	42%	33%	0
O. Using Brainstorming in Meetings When Appropriate	0	4%	27%	44%	25%	0
P. Dealing with Difficult Meeting Participants	0	0	6%	44%	50%	0
Q. Providing Feedback to Meeting Participants	0	19%	56%	25%	0	0
R. Handling Conflict in Meeting	0	4%	31%	50%	15%	0
S. Keeping the Meeting on Focus	0	0	25%	42%	33%	0
T. Accomplishing Meeting Objectives	0	4%	27%	44%	25%	0
U. Evaluating the Meeting Process	0	10%	38%	38%	15%	0
V. Implementing Action Plans	0	2%	33%	46%	19%	0
W. Planning a Follow-up Activity	0	6%	42%	35%	17%	0

Table 12-12. Improvement in Time Spent on Meetings Here

Current Meeting Activity (Month Before Program)		Average Pre-Program Data	Average Post-Program Data
Number of meetings chaired each month	A	<u>6.5</u>	<u>5.2</u>
Average number of individuals attending each meeting each month	B	<u>7.2</u>	<u>5.1</u>
Average length of time for each meeting (in hours)	C	<u>2.6</u>	<u>1.7</u>
Total Time Consumed in Meetings (A x B x C)	D	<u>121.68</u>	<u>45.1</u>
Averaged Responses to Question 8 (Follow-up Questionnaire)			
Meetings Avoided			
Estimate of number of meetings avoided each month			1.3
Shorter Meetings			
Estimate of average time saved per meeting (in hours)			0.9
Reduced Number of Participants in Meetings			
Estimate of number of participants reduced for each meeting			2.1
Number completing programs			72 (three groups)
Number of questionnaires returned			48 (67 percent)
Number of questionnaires with usable data for questions 8 and 9			31 (43 percent)
Average value of confidence level from Question 9			81 percent

Monetary Benefits

The data conversion technique used was a standard value of time, which equates to average hourly compensation of attendees plus the benefits factor of 32 percent. The average hourly cost of an attendee was calculated to be \$31. As shown in Table 12-13, an average monthly savings in meeting costs based on the three measures was \$2,373.98.

Table 12-13. Monetary Benefits of Time Savings

Current Meeting Activity (Month Before Program)		Average Pre- Program Data	Average Post- Program Data	
Number of meetings chaired each month	A	<u>6.5</u>	<u>5.2</u>	
Average number of individuals attending each meeting each month	B	<u>7.2</u>	<u>5.1</u>	
Average length of time for each meeting (in hours)	C	<u>2.6</u>	<u>1.7</u>	
Total Time Consumed in Meetings (A x B x C)	D	<u>121.68</u>	<u>45.1</u>	
Average hourly compensation of attendees (salary plus benefits)	E	<u>\$31.00</u>	<u>\$31.00</u>	
Total Meeting Costs (D x E)	F	<u>\$3,772.08</u>	<u>\$1,398.10</u>	
Meetings Avoided				
Estimate of number of meetings avoided each month			<u>1.3</u>	G
Shorter Meetings				
Estimate of average time saved per meeting (in hours)			<u>0.9</u>	H
Reduced Participants in Meetings				
Estimate of number of participants reduced for each meeting			<u>2.1</u>	I
Total Savings				
Monthly Meeting Savings (Pre – Post Costs)			<u>\$2,373.98</u>	J
Annual Savings (J x 12)			<u>\$28,487.76</u>	K

This amount represents the difference in pre-program costs (\$3,772.08) and post-program costs (\$1,398.10). The ROI is an annual value, and the division president wanted to see a payoff within one year. The savings were annualized using this monthly average, yielding a monetary benefit of \$28,487.76 for one participant.

To calculate the full benefits of the program, the monthly value was multiplied by the number of participants who provided useable data (31); the error adjustment was also considered (81 percent). The full value of the Effective Meeting Skills workshop was:

$$(\$28,487.76 \times 31) \times 0.81 = \$715,327.65$$

Fully Loaded Costs

Program costs included the program fee, which incorporated materials and facilitator costs; travel, lodging, and meals for participants; facilities; participants' time in the workshop (salaries and benefits); and evaluation costs. The needs assessment of \$5,000 was also included. However, since the program was intended to go out to the entire 150 managers and supervisors, these costs were prorated over the number of people attending the program, and calculated only for the 72 in the evaluation. Even though the benefits were calculated only for those responding, program costs accounted for all participants costs. The fully loaded costs of the Effective Meeting Skills workshop are shown in Table 12-14.

Table 12-14. Costs Used in the ROI Calculation for the Effective Meeting Skills Workshop

Item	Calculation	Cost
Needs Assessment	\$5,000 prorated over 150 participants	\$2,400
Program Fee	\$800 per participant x 72	\$57,600
Travel, Lodging, Meals	\$245 x 72	\$17,640
Facilities	\$190 x 6	\$1,140
Participant Time	\$219 per day x 1.32 x 2 x 72	\$41,628
Evaluation Costs		\$5,000
	Total Costs	\$125,408

The return on investing in the Effective Meeting Skills workshop was 470 percent, as shown by the calculation below.

$$\text{BCR} = \frac{\$715,327.65}{\$125,408} = 5.7:1$$

$$\text{ROI} = \frac{\$715,327.65 - \$125,408}{\$125,408} \times 100 = 470\%$$

The ROI told the division president that for every dollar spent on the workshop, TechnoTel received \$4.70 after costs. On the surface, the ROI seemed high in comparison to other investments. But because the division president knew the value of time and knew how much time had been wasted in meetings in the past, the ROI calculation was believable. The evaluation team had been diligent in advising the division president of the evaluation process and keeping him abreast of the findings, thereby enhancing the credibility of the ROI process.

Intangible Benefits

The financial impact to TechnoTel was an important outcome of the evaluation. However, other important outcomes occurred as well. Along with improvement in overall productivity and quality of meetings, employees and their supervisors in TechnoTel were becoming happier in the work setting due to the reduction in wasteful meetings. The groups who had attended the Effective Meeting Skills workshop took the process seriously and had a keen desire to improve their meeting process; therefore, tools were being implemented. This also helped improve customer satisfaction—both external and internal customers. Respondents to the evaluation reported being more accessible and more focused on customer concerns.

An interesting unexpected benefit of the program was that the division president began using the meeting profile worksheet as a tool to manage the cost of his own meetings. He asked that his senior leaders do the same. The tool has become a time management tool throughout this division of TechnoTel.

Communication Strategy

The success of the ROI study at TechnoTel can be attributed to the continuous communication throughout the process. From the outset, the division president was kept informed of the progress with the study. He was involved in the planning stage and data collection. As results at Levels 3 and 4 began rolling in, the evaluation team kept him informed. Once the study was completed and the division president was aware of the results, the senior management team participated in a one-hour briefing. Because there were several new senior managers who were unfamiliar with the evaluation practice at TechnoTel, a full presentation was conducted. The presentation topics included:

- Need for effective meetings
- Program design
- Need for evaluation
- Evaluation methodology
- Evaluation results

At the end of the presentation, each person received a copy of the complete report, as well as a summary copy.

Based on the questions and the response to the presentation, the senior management saw the evaluation process as credible. Even more important, they saw the value of the Effective Meeting Skills workshop and asked that the program be implemented in other areas of TechnoTel.

Lessons Learned

Regardless of the number of evaluation studies conducted, there are always lessons to learn. Because the evaluation team thought there was an understanding of the evaluation process, they did not spend time explaining Questions 8 and 9. Had they done a better job covering those questions on the questionnaire, they might have achieved a greater response rate.

Because evaluation is routine at TechnoTel, the questionnaire administration strategy seemed appropriate. However, with only a 67 percent response rate, there was room for improvement.

Questions for Discussion

1. Was the president justified in asking for a comprehensive evaluation of an effective meetings skills workshop?
2. How could the needs assessment have been improved?
3. What steps could have been taken to ensure a higher response rate, especially for Questions 7, 8, and 9 on the questionnaire?
4. How credible are the time savings data?
5. How would you have approached the evaluation strategy for the Effective Meeting Skills workshop?