

An Assessment of Management Participation
in Level 3 Training Evaluation at the
Texas Department of Insurance

by
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An Applied Research Project
Political Science 5397
Submitted to the Department of Political Science
Southwest Texas State University
in Partial Fulfillment
For the Requirements for the Degree of

MASTER OF PUBLIC ADMINISTRATION

Spring 1996

FACULTY APPROVAL:

ACKNOWLEDGEMENTS

I want to thank the Texas Department of Insurance for allowing me to do this case study. I appreciate **the** interest and support shown from this **project's conception**, the feedback I received during **the** design phase of **the survey** and **interview** instruments, and the responses I used to **complete** this study. I want to express my special thanks to Stan **Wedel**, Chief of **Staff**; Morris **Winn**, Deputy Commissioner for Human Resources; and Cheryl Kabler, Assistant Director for Human Resources, for their support of this project.

I also want to thank Dr. Pat **Shields** for **her patience** with me through the whole process these last two semesters. This document is truly a much better product **because of** her time and her ability to "**see the light**" when I could not.

Lastly, I want to thank my Mom and Dad for instilling in me **the need** to be **responsible**, practical, and competitive--good values for graduate school and life in general. And I couldn't **have** done any of this without Mark's support. I want to **give** him special thanks for his encouragement, patience, and his uncanny ability to go fishing when I needed time alone with my computer.

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Chapter I

Introduction and Statement of Research Purpose

Introduction

The following conversation is overheard in an organization:

(Monday)	"I need you folks to do some training for my group."
(Tuesday)	"I cant wait until then to get my people trained! You've got to get it done sooner ."
(Wednesday)	I cant possibly spare my people for two days of training! You can have them for one day at the most."
(4 weeks later)	"I gave them to you for a wholc day, and I don't think they learned a single thing . When are you guys ever going to get serious and give us some training that really makes a difference?"

Does this actually happen? Yes. This conversation between line managers and training directors is **common**.² In these situations, managers and trainers miss opportunities to do something valuable for the organization: **develop employees** to improve performance which, in turn, will improve the organization's **performanc**.

What can be done to prevent **conversations** like the one above? First of all, **managers** need to be able to define employee training needs. They also **need** to set **expectations** with employees and training **department** staff regarding those expectations.¹ It is the training director's **responsibility** to determine if the training which managers want, in the manager's time frame, is realistic. If the training department passively **complics** with a manager's request without jointly discussing

¹ Adapted from Carr, 1992. p. 60.

² Carr, 1992. p. 60; Deming, 1982. p. 65.

³ For a full **discussion of management roles** and support in training. see Phillips. 1991.306327.

needs, design, and delivery expectations, the training **function** within an organization contributes to the problem of unmet **expctations**.⁴

Secondly, situations such as the conversation above may be less common if managers and training departments look at training from a systems perspective. Not only do managers, trainers, and trainees work together to assess training needs, but also in design, delivery and evaluation to determine if those **needs have** been met once **the employees have been** trained (Broad and Newstrom, 1992, p. 12). Therefore, from a systems perspective, all members of the organization must work together to assess **the** total value of training (Basarah and Root, 1992, p. 2).

The "training" system is **composed** of **requirements, results** and resources (Carr, 1992, p. 60). **Requirments** consist of **information** from training needs assessments. Specifications for the training program are **embedded** in the design and delivery of the program. The results **component** is equivalent to **the** program evaluation. And, of course, resources are consumed in the system's process. In fact, job-related training consumes an estimated \$39.5 million each year in U.S. organizations (Phillips, 1991, p. ix). Therefore, it is no wonder that employeec training is under closer **scrutiny**,⁵ and training departments are under more pressure today than ever to produce results. In fact, training-related cost factors have made evaluation, results-oriented training, and training's bottom line contribution to the organization the hottest issues in the Human Resources field (Phillips, 1991, p. ix).

Consequently, **resource** investments and the **need** for results have placed training departments today at a juncture, experiencing both high risk and high opportunity within organizations. The risks, or uncertainty, in training departments involve pressure to prove training's worth, especially in light of downsizing, outsourcing, and PC-based self-instructional training with no instructor needed. At the

⁴ **Personal knowledge of author, a professional trainer.**

⁵ **Carnevale and Schulz, 1990. p. s-24.**

same time, however, training departments are provided opportunities to use training **evaluation** as a catalyst to prove training's **value** in organizations. In sum, training departments have been placed in a position to justify their purpose.

What purpose does training serve in an organization? Caffarella (1988, pp. 5-6) cites three purposes: 1) to prepare people to do their jobs, 2) to improve present job performance, and 3) to assist departments and whole organizations to grow and develop. In order for training departments to fulfill these three purposes, it is necessary that they work jointly with management and employees to initially assess training needs and follow through within these partnerships to evaluate training programs. In establishing partnerships with participants and managers, Jack Phillips (1991, p. 312) provides the analogy of a three-legged stool with legs representing the manager, training participant, and training department. All three legs are **necessary** for **results-oriented** training. And program evaluation is necessary to determine those results.

Statement of Research Purpose

Consequently, the case study presented here asks the Texas Department of Insurance (TDI) managers questions about training results. For example, what methods or techniques do TDI managers currently use to evaluate training results? Do they observe employee job performance **after** training to determine a difference? Are managers with 15+ years in management more likely than those managers with less **tenure** to evaluate training through observing employee performance changes? If managers do not evaluate training at a "changed behavior" level, what activities do they use, if any, to evaluate the effectiveness of training which their employees attend? And finally, what resources or processes would enable or encourage them to evaluate the **training** which **their employees** attend?

Chapter Summaries

This section is an overview of the chapters included in this paper. In Chapter 2, a literature review on management initiatives for employee performance, training evaluation, systems analysis, and management involvement in the evaluation process is reviewed. Included in Chapter 2 is an overview of a training evaluation model. The second half of chapter two includes an extensive discussion of Kirkpatrick's training program evaluation model with specific emphasis on what he terms "Level 3 evaluation," determining behavior changes in participants. Level 3 evaluation is the focus of this case study.

Chapter 3 provides the legal and historical setting for the case study and includes historical information on the Texas Department of Insurance (TDI), the training department, types of training provided by the training department at TDI, and training evaluation. The conceptual framework is developed and working hypotheses follow.

Chapter 4 discusses the case study methodology using survey, interview, and document analysis.

Chapter 5 discusses the findings for the case study. The findings are presented in narrative and table form and address each portion of both the questionnaire and interview questions.

Chapter 6 summarizes the applied research project findings and offers conclusions and recommendations. Implications of the study are drawn. Limitations of the study are discussed. Suggestions for future research are indicated.

Chapter 2

Literature Review

The purpose of this chapter is to review the literature on evaluating the effectiveness of training and to provide the foundation for the conceptual framework which will be developed in Chapter 3. In order to take into account the many facets of "evaluating the effectiveness of training," a diverse literature is reviewed. It includes literature on training evaluation, performance measures, and organizational development. This chapter also introduces training evaluation as a systematic approach using Kirkpatrick's⁶ Model. The second half of the chapter focuses on what Kirkpatrick calls "level 3" training evaluation--applying newly-learned knowledge and skills back on the job. By using Kirkpatrick's Model, a foundation is laid for understanding the evaluation process and transferring that understanding to the empirical case study.

Proving Training's Worth

Authors,⁷ both practicing trainers and academicians, point to a need identified in the early 1980s--systematic evaluation or assessment of training effectiveness. This need to evaluate training is driven by the shift in the world economy from a production to a service orientation (Boverie, Mulcahy, and Zondlo 1994, p. 279). This change in shift, along with competition, technological advancement, and the pressure to tighten budgets, has forced organizations to reevaluate many of their programs, especially those of training.

Governmental training departments, like those in the private sector, are also being pressured to prove their worth. In government organizations, this pressure stems from the taxpayer's demand for greater efficiency, effectiveness, and economy (Truitt,

⁶ See Kirkpatrick, 1975, 1979, and 1994.

⁷ See Dixon, 1990; Fulmer, 1988; Brinkerhoff, 1988; and Deming, 1982

1995, p. 1) Also, **funding** for many government **functions** is dwindling because of a decreasing tax **base**. Thirdly, **governmental** training **departments** are experiencing a need to align training with initiatives such as **strategic** budgeting and performance measurement systems. Finally, government entities are requiring training departments to determine if knowledge transfer and skill enhancement actually occur through training efforts (Truitt, 1995, p. 1). These requirements are focused on effectiveness and efficiency.

Consequently, both **private** and public sector training programs are under scrutiny to prove their worth or be cut from the organization chart. Mary Broad and Pamela Jones-Morton cite three major trends in training which also threaten training departments: outsourcing training because of the downsizing of training departments/organizations, using self-instructional multimedia on computers (bypassing trainers **completely**); and shifting training responsibilities from **trainers** to line managers and teams (1995, p. 25). Consequently, if a training department does not provide evidence that its **function** is vital to the organization, **the** training department has, therefore, led to its own **demise** (Zenger and Hargis, 1982, p. 11). Although training, by itself, never determines an organization's failure or success, the literature concludes that training departments must move toward a more thorough, systematic process of evaluation.

Until recently, however, there has not been a **bona fide** effort to use valid and reliable methods to conduct such evaluations? **Fewer** than half of **America's** training programs are formally evaluated which indicates implicit managerial trust or good faith that training facilitates attainment of organizational goals⁸. Trainers are placed in a position of justifying their existence by evaluating their training, but few **find** time to do extensive evaluation. Dixon calls this the "ought to" phenomenon (1990, p. 1).

⁸ See Boverie, Mulcahy, and Zondlo, 1994, p. 281; Blumenfeld, 1974, p. 9.

⁹ See Carnevale and Schulz, 1990, p. s-15, s-24-25; Zenger and Hargis, 1982, p. 11.

Beverly Geber uses **the** analogy of evaluating the effectiveness of training to **the** equivalent of flossing teeth: we know **we** should do it; it's good for us; there may be dire consequences **if** we don't; yet few do it unless the dentist warns us that our "teeth are starting to wobble" (1995, p. 27). Consequently, as organizations move toward performance measures as a method to evaluate programs and activities, training departments are being forced to demonstrate their contribution and credibility through training evaluation.

Therefore, it has **been** established that evaluation of training programs is crucial. The **next** challenge is to understand the **scope** of evaluation in training programs. In **order** to establish the scope, several training-related terms must **first** be defined.

Defining the Scope of Training Evaluation

In order to comprehend the topic--evaluating **the** effectiveness of training--common terminology is necessary to establish the scope of the research. First, **training** should be differentiated from **education**. Although the teacher and trainer professions both see their role as helping others to learn, their methods, environment and objectives are different. **Education** aims at increasing **intellectual** awareness and preparing participants to **deal** with **the unknown**.¹⁰ Education involves learning basic principles and **theories** that can be applied to other situations; therefore, it is focused on a future job. A perfect example of this **definition** is a college education. It provides principles and theories which are applicable to real-life situations. It is therefore, focused on a future job.

Training is a "set of activities that provides learning opportunities" which are focused on an employee's present **job**.¹¹ Training is designed to make someone proficient (competent) at the execution of a task. Therefore, there should be a **causal**

¹⁰ For a **full** discussion on education **vs.** **training** see London, 1989, p. 1 and Georges, 1996, p. 49.

¹¹ See London, 1989, p. 1 and Schermerhorn, 1986, p. 254.

relationship between training and **performance** (Georges. 1996, p. 49). Training is provided as a "maintenance" function for the organization's "human resources" (Schermerhorn. 1986, p. 241). This "maintnancce" task is aimed at adding to or **renewing** the abilities of an organization's work **forcc** (Siegel and Myrtle. 1985, p. 349). It involves assessing **training needs**, setting objectives, selecting methods for delivery, implementing the training program and evaluating **thc** program (Schermerhorn, 1986, p. 241). In sum, training's goal is to improve job-specific skills, knowledge and abilities.

In fact, organizations focus on knowledge, skills and abilities from an initial job posting, through screening and the job **interview**, and throughout **thc** career of the hired individual. Training programs are aimed at increasing or changing each **of thc** three components: knowledge, skills, and abilities. The knowledge aspect emphasizes thinking (Siegel and Myrtle, 1985, **p.** 349). Therefore, behavioral objectives are developed in training programs to improve the knowledge level of employees, focusing on their ability to interpret, analyze, synthesize. or evaluate certain information or situations. Training programs may be designed to provide initial information. then use case studies, scenarios. or situation-type excrcises to determine the knowledge level of participants. The participants' abilities to analyze and apply course information in these exercises would, **therefore**, be tested. One form of evaluation in training programs such as these would be pre- and posttests. Another form would be observation in the work place that the training participants had the ability to apply what was learned to real situations back in their work environment.

The skill dimension refers to the motor, manual, or physical capacities necessary to perform a particular task (Siegel and Myrtle, 1985, p. 349). Behavioral objectives for this dimension emphasize **thc** building, manipulating, or doing aspects of the task.. An example of training focused on increasing skills is **computer** classes. Evaluation , **measures** of learning may include in-basket excrcises where the training participant is

required to complete a spreadsheet or design a form using skills learned in a class. A deeper evaluation would involve observation of the participant on the job to determine his/her ability. This deeper evaluation is what Kirkpatrick¹² calls "behavior" change: a ability to apply what was learned through a training program back at work.

Kirkpatrick provides four conditions which must be met in order for behavior to change:

1. The training participant must **have** a desire to change.
2. The participant must know what to do and how to do it.
3. The person must work in the right climate.
4. The person must be rewarded for changing (Kirkpatrick, 1994, p. 23).

The **three componcnts**, knowledge, skills and abilities, are targets for training. These targets are used to design training to meet the **needs** of its participants and to determine afterwards if those needs were met. This **determination** is done through evaluation.

Evaluation in the training **context** involves measuring learning: "What knowledge was learned? What skills were developed or improved?" (Kirkpatrick, 1994, p. 42). In more technical terms. "evaluation is a systematic process by which pertinent data are collected and converted into information for measuring **the** effects of training" (Basarab and Root, 1992, p. 2). The goal of evaluation is to link **these** effects to organizational **goals**.¹³

The results of training can be measured (evaluated) in terms of *effectiveness*. Training is effective when it accomplishes its intended objectives, i.e., when it improves the knowledge, skills, and abilities of its participants, and in doing so, moves the organization closer to its goals (Carr, 1992, p. 61). If training is *efficient*, then it meets its objectives at the least possible cost. Therefore, if efficiency is thought of as the cost side of training, effectiveness is the benefit side (Swanson, 1989, p. 73). Both **efficiency** and **effectiveness** must be used when evaluating training programs.

¹² For more information on Kirkpatrick, see Kirkpatrick, 1975, 1979, and 1994; Basarab and Root, 1992; Carnevale and Schulz, 1990; and Truitt, 1995.

¹³ See Brandenburg, 1989, p. 83; London, 1989, p. 301.

Programs could surely be effective if resources were unlimited. Yet, efficiency alone does not prove the value of a program.

A training program's worth is often determined by management's support of the program. It follows then that trainers, managers and trainees must work **together** to assess training needs, design and **deliver** training to meet **those needs**, and follow-up training with evaluation. This joint effort is termed **partnering**. Mary Broad and John Newstrom use this focus on partnership **developed** by **managers**, trainers and **trainees** to address problems in the work **place** which **deal** specifically with training evaluation (1992, p. 12-14). Each **partner** in **the** triangle has a role. The **employee** must realize **his/her need** for training. The trainer must design and **deliver** training to satisfy that need. Managers must support the learning and application on the job.

In sum, evaluating the effectiveness of training can be defined as a systematic process to collect data used to determine if training helps improve knowledge, skills, and abilities of employees within an organization that, in turn, will enable the organization to reach its goals.

Over the past century, many management and organizational theories have focused on methods which enable organizations to reach goals more efficiently. Most **of these** methods are directed at organizational structure, management roles or employee needs.

The History of Management Initiatives for Performance

Historically, organizational structure, employee performance and efficiency has been debated by many **theories**. According to **Shafritz** and Ott (1987), early organizational theory originated in **the Bible**¹⁴ with Moses organizing, delegating and making decisions **regarding** the children of Israel (p. 19). More recently, Max **Weber's**

¹⁴ The authors refer to Exodus, Chapter 18: 13-27

"ideal-type model" demonstrated goals of organizational efficiency, including employee performance. Weber (1864-1920) was an analytical sociologist who developed his model through studying bureaucratic organizations (Shafritz and Ott, 1987, p. 26). His model centered on "bureaucracy,"¹⁵ efficiency, and how a bureaucracy should be organized and function through worker specialization matched with job criteria (Hummel, 1994, p.92). This job specialization, of course, was reinforced through training to ensure even more specialization in the technical, hierarchical order of the organization. Weber's theory placed little emphasis on how people felt about the work they were doing (Dresang, 1984, p. 9). Instead he focused on the ineffective attempts at efficiency: the language (jargon) used in an organization, the culture (or mind set) developed through hierarchical layers, and top-down knowledge provided (and control perpetuated) in the form of information rather than communication between management and employees (Hummel, 1994, pp. 15-17).

Scientific Management School of Public Administration

Over the years, Weber's "ideal-type" model led to two separate schools of thought: the scientific management school and the human relations approach. The work of Frederick Taylor begun in the 1870s was consistent with Weber's theory in its approach to increasing efficiency and productivity in organizations. This scientific management movement focused on job analysis, work design, and position classification systems. Taylor felt improvement of efficiency was a management responsibility based in selecting and training employees.¹⁶ Taylor's approach to training was that individuals should be trained to perform according to task requirements and to the best of their abilities (Schermerhorn, 1986, p. 40). Although

¹⁵ For a discussion of Weber's six points of bureaucracy, see Hummel, 1994, p. 87-93. See also Weber, 1968, p. 958.

¹⁶ See Knott and Miller, 1987, p. 57; Shafritz and Ott, 1987, p. 31; and Shafritz and Hyde, 1987, p. 82; and Schermerhorn, 1986, p. 39.

the "primary weakness of Taylor's approach was the inattention to **the** human character of **employees**," the first major criticism of the scientific management theory was the concern over productivity (Dresang, 1984, p. 10). Counter to Taylor's theories of productivity were the studies **performed** in the Hawthorne Works plant of Western Electric Company in **Chicago**¹⁷ which indicated human motivational factors influenced plant productivity. Consequently, the human relations movement was born.

Human Relations Approaches to Public Administration

Mary Parker Follett, and later A. H. **Maslow**, focused their work on the importance of human relations to organizational productivity. She stressed the need to "repersonalize" the work place through communication between management and employees (Follett, 1987, p. 70). When discussing the link between training and communication she stated.

It has been hard for many old-fashioned employers to understand that *orders will not take the place of training*. I want to italicize that. Many a time an employer ... expressed ... a workman 'wouldn't' do so and so. when the truth of the matter was that **the** workman couldn't, actually couldn't, do as ordered ... (Follett, 1987. p. 66).

Mary Parker **Follett's** guiding principles were what would termed "participative management" today:

- making everyone employed by a company an owner in the business would create feelings of collective responsibility [today's profit sharing, gain-sharing];
- business problems typically involve a wide variety of factors that must be considered not in isolation, but in relationship to one another [today's system's theory]; and
- businesses should be considered as services and that **private profits** should always be considered vis-a-vis the public good [today's managerial ethics and corporate social responsibility] (**Schermerhorn**, 1986. p. 42).

¹⁷ For a discussion of the Hawthorne study, see **Knott and Miller**, 1987. p. 102-103

Known for his human motivation **theory** presented through his hierarchy of human needs, **Maslow** followed in this school of thought (**Maslow**, 1987, p. 135). Briefly, **Maslow's** theory **provides five** levels of human **needs** in which each level must be met before being able to **experience** the **next** higher level **need**. The most basic level is what **Maslow** terms "physiological" needs which include food, **water** and shelter. The second level is safety; third **level**, social needs; fourth **level**, esteem; and fifth, **self-**actualization. The **fifth** (highest) level allows humans to become "everything that **one** is capable of becoming" (**Maslow**, 1987, p. 142). It follows then that theoretically, within an organization focused on **Maslow's** theories, managers would mentor and empower employees, provide direction to organizational goals, and allow employees to decide how the work is to be done.

Douglas McGregor built on **Maslow's** theory of motivation with his "Theory Y" which addressed the human side of enterprise (1987, pp. 259-260). Through this theory, management's role is to create opportunities, release potential, remove obstacles, encourage **growth** and provide guidance to employees (McGregor, 1987, p. 261). "It is what Peter **Drucker** has called 'management by objectives,' in contrast to 'management by control'" (McGregor, 1987, p. 261).

Of course, management by objectives (MBO) came and went, and since then organizations have used theories aimed at efficiency and effectiveness in **government** as proposed through concepts such as total quality management¹⁸ and reinventing **government**.¹⁹ More recently performance **reviews** at both the federal and **state** levels have been designed to cut unnecessary costs through restructuring government entities and aims at **efficiency** through performance measures.

Through the years these organization and management theories have run concurrently with theories in budgeting processes. These budgeting theories have been

¹⁸ See **Walton**, M. (1986) for a discussion of W. Edwards Deming and Total Quality Management; also see **Osborne** and **Gaebler** (1992) p. 172.

¹⁹ See **Osborne**, D. and **Gaebler**, T. (1992).

promoted by authors such as Willoughby (1987, p. 33) who **introduced the** budgetary reform movement in the early 1900s: Key (1987, p. 116), who **proposes** supply-side economics: Schick (1987, pp. 299), who **differentiated** program and performance-based budgeting; and Weiss (1987, p. 474), who focused on program evaluation. Each of these theories, including organization and budgeting, were attempts at efficiency in government.

Search for the Perfect Model for Public Administration

From Weber, through Taylor, Follett, and others, many theories have emerged to explain the "perfect" organizational structure for effectiveness. However, a common theme among all appears to be organizational effectiveness through employee performance: specialized work, structured tasks, organized or creative environment, training, communication and **fulfilling** human needs. Underlying all these incentives, however, is the need to help the employees become more productive. In more negative terms: get more productivity from the **employees**. Authors such as Knott and Miller, relying on previous works of Herbert **Simon**,²⁰ have given up the search for the efficient organization, contending that dysfunctional bureaucracies perpetuate their dysfunctionality through explanations of "rational **ignorance**" and "**trained incapacity**" (**Knott** and Miller, 1987, p. 180-181). Skilled, trained employees are not always the most responsible, most accountable, and most efficient because "bureaucracy trains its employees in very specialized, and narrow areas," ... [not allowing employees] to see beyond the special requirements of their own jobs to get the 'big picture' of what is best for the organization as a whole" (**Lipsky**, 1980, p. 147).

Hurmel (1994, pp. 252-253) offers a more extreme viewpoint of the efficient organization and its workers. He concludes that bureaucracies produce, through their division of labor and attempts at **efficiency**, a knowledge gap between managers and,

²⁰ See **Simon**, 1945; or **March and Simon**, 1958.

employees which leads employees to be more **specialized** and technical, yet less informed organizationally, **less** powerful, less confident, and less effective. Through the division of labor and organizational hierarchy, the employee is dependent on management for information, direction and coordination, leaving all organizational power to management (**Hummel**, 1994, p. 252). Consequently, management goals and values become **those** of the employees. The end product or goal is still the "more efficient" employee in a "more efficient" organization. However, the costs to the worker, though they may not be realized, are high if viewed from the humanistic approaches such as Follett, **Maslow**, and **McGregor**.

The Link Between Training and Organizational Performance Measures

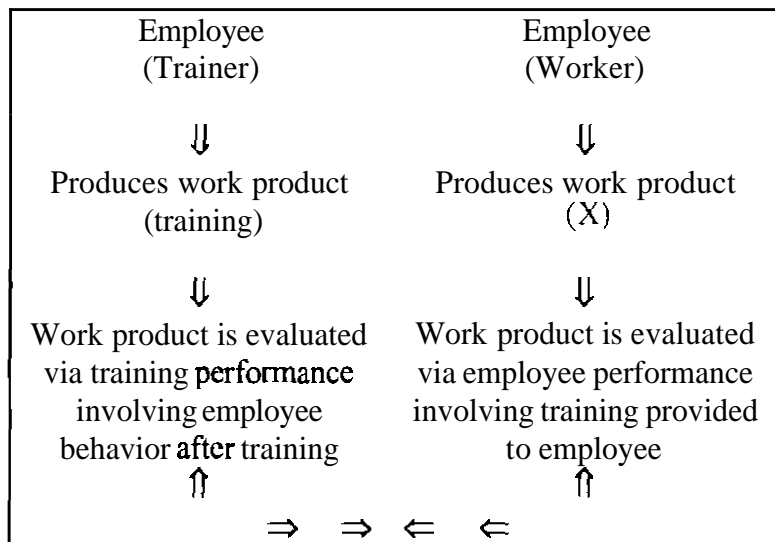
In today's context, and using **Hummel's** viewpoint (stated above), training, performance measures, and goals of **efficiency** would be further attempts, although subtle, of challenging the employee to do more work (**often** with less resources). Employee performance appraisals which, of course, use performance measurements, are based in Frederick Taylor's scientific management theory (Siegel and Myrtle, 1985, p. 298). However, from a human relations approach, employee performance measures could also be established for developmental purposes.

In reality, training, performance **measures**, evaluation, and organizational goals of **efficiency** are intricately intertwined. Training within the organization is focused on gaps between individual performance plans (through performance measures and employee appraisals) and matched to organizational goals, **i.e.**, training departments must derive the organizational needs from strategic plans and employee development plans (Siegel and Myrtle, 1985, p. 341). This link between organizational goals and employee performance allows the training **component** within an organization to complement management processes.

The key to evaluating an **employee's** performance is through behavioral **changes** developed through training. This tie **between** training and **employee** performance necessarily involves evaluating training. The **evaluation** of training at the employee performance level is the research **topic presented here**.

Generally speaking, two measurements are **running** concurrently when training is evaluated at a level which involves observing employee behavior at the work site to see if the employee can demonstrate what was learned in class. This interaction is displayed in Figure 2.1 below. One measurement involves the trainer's work product; the other, the employee's work product. But the two are actually **interhvined** systems, consisting of several processes, and measured organizationally. In fact, both measurements should tie directly to organizational strategic goals.

Figure 2.1. Organizational Systems of Performance Measurement



Evaluation of these two performance measurements, the trainer's and trainee's, involves both the internal and the external aspects of the learning experience. Internal measures--the **learner's** reaction to the learning activity and the extent of **his/her** learning--provide insights into the adequacy of **the** training activity itself. External measures--the extent to which changes in work behaviors are realized and the impact of

these changes on the work unit or organization--provide information about the adequacy of the needs **assessment** and the extent to which training contributed to improvement in overall **performance** (Siegel and Myrtle, 1985, p. 361). In other words, training evaluation is focused on the short **term** (internal measures) and the long-term (external measures) effect (**Shafritz** and Hyde, 1987, p. 477).

To summarize this section on public administration, **theorists** such as Taylor and **Follett** spoke directly to using training to assist employees in their work **performance**, albeit from two different **viewpoints**. It **appears** the literature has **yet** to tie training program evaluation to public administration and management theories. However, the literature does show a trend to tie training program **evaluation** and measurement to organizational performance measures. Jack Phillips (1991, p. 12) states, "the field of [training] evaluation is **embryonic**, but mushrooming ...much of the information is still theory." Kirkpatrick's model for evaluating training programs is one of **the** most widely accepted "theories" for program evaluation.

Kirkpatrick's Model for Training Evaluation

Donald Kirkpatrick is **considered** a leading **expert** in the area of evaluating **training**.²¹ He began to study this topic in 1959 with his dissertation and continues today with many lectures on the **subject**. His model for evaluating training is commonly accepted in the training **arena**.²² **Kirkpatrick's** model consists of four **levels** (layers, or depths) of evaluation which he has **labeled**: 1) reaction, 2) learning, 3) behavior, and 4) results. He developed this four-level model (*see* Table 2.1) to clarify what is meant by the term **evaluation**. **He** concludes that all four levels, taken in concert, are needed to evaluate **the effectiveness** of a training program. Some

²¹ **See** Carnevale and Schulz, 1990; **Truitt**, 1995; and Hassett, 1992.

²² For more information on Kirkpatrick's model, see Kirkpatrick, 1975, 1979, and 1994; **Basarab** and Root, 1992; **Carnevale** and Schulz, 1990; and **Truitt**, 1995.

variations of **Kirkpatrick's model** exist in the literature,^{2,3} however, these variations agree with **Kirkpatrick's** basic components of training evaluation. Refer to Table 2.1. below.

Table 2.1

Kirkpatrick's Four-Level Model of Evaluation

Level	Titled	Description	Methodology
Level 1	Reaction	How did the participants react to (like) the training?	Post-training "smile" forms
Level 2	Learning	The extent to which participants change attitudes, improve knowledge, or increase skills as a result of the program	Pre- and posttests or instructor observation
Level 3	Behavior	The extent to which change in behavior has occurred because participants attended the course.	Observation of trainees demonstrating knowledge and skills on the job
Level 4	Results	What is the return on investment for the organization that occurs because participants attended the program?	Evaluation of increased production, reduced turnover, few complaints. etc.

For a clearer understanding of **Kirkpatrick's** model, use the analogy of training as an iceberg. Level 1 evaluation would evaluate only what is seen at the surface, i.e., the portion of the iceberg which is **seen** above water. **Level 2** would be used to evaluate the portion of the iceberg just below the surface. with the deepest portion of the iceberg evaluated at Level 4. Therefore, when **Level 1** evaluation is **discussed** below, it is the most **visible**, most readily accessible method of measurement to use. It may not, however, be a realistic **representation** of the total iceberg (training).

^{2,3} See Brinkerhoff, 1988, pp. 132-148, for six *stages* of evaluation.

Level 1 Evaluation

Kirkpatrick's Level 1, reaction, is the most frequently used methodology for evaluating training (Basarab and Root, 1992, p. 9). Level 1 may be considered the surface or minimum level of evaluation. Reaction is most often measured from data gathered on "smile" or "happiness" surveys collected from participants (how happy/satisfied were they?). These survey forms administered to participants evaluate the training program for ways it can be improved; rate the instructor's methods to ensure learning, training facilities, and teaching aids used; and generate other suggestions for improving the training program. However, evaluation using only reaction data do not include a measure of learning that took place or if the learning will transfer to the participants' jobs (Carnevale and Schulz, 1990, p. s-15).

A second problem with post-training reaction forms is that they often generate problems for the training department by 1) setting up the expectation that training should be entertaining, 2) asking participants questions for which they are not qualified to answer,²⁴ and 3) leading participants to feel learning is passive rather than active (Dixon, 1987, pp. 108, 110). In fact, Level 1 evaluation which determines course satisfaction (reaction) may be incongruent with the discomfort participants feel through learning, especially if that discomfort was experienced in skills practice and role plays, both of which receive resistance in the classroom. Consequently, at Level 1 "depth" it is impossible to determine the effectiveness of a program using only reaction methodology.

A third problem with using only reaction data for evaluation is it leads to a confusion about who is training's final customer. Receiving data from the training participants themselves gives the perception that they are training's only customers. However, from a systems perspective, training should be designed to address organizational needs making the ultimate customer upper management and the

²⁴ For a list of problematic questions often used on reaction sheets, see Dixon, 1987, p. 110.

organization as a whole (Brinkerhoff, 1989, p. 9). This layered "higher order" perspective of customer-focus lends itself to incorporating evaluation processes into the design of training, to linking training to organizational strategies, and to evaluating the end product with management and organizational goals in mind.

Level 2 Evaluation

The second level of evaluation, learning, **determines** the course's effectiveness by providing participants with the opportunity to demonstrate what facts, techniques, or skills they have **learned** (Basarab and Root, 1992, p. 10). Level 2 evaluation may be considered one layer deeper than Level 1 and is measured through **pre-** and **post**tests, performance demonstrations, or simulation. Although **measures** are used to evaluate learning, the results do not ensure employees will use the knowledge, skills or abilities (learned through training) when they return to their jobs (Gordon, 1994, p. 353).

Educational institutions have traditionally measured learning through testing. Although tests are expected in schools and colleges, many employees do not expect to be tested when attending training programs. Organizations which have not measured learning in the past should use care when **beginning**. Training participants may feel pressured to perform when they are required to demonstrate what they learned, especially if the measure uses testing (Dixon, 1987, p. 115).

Level 3 Evaluation

The third level of evaluation is what Kirkpatrick calls "behavior." This depth of training program evaluation is defined as the extent to which a change in behavior has occurred because the participant attended the training (Kirkpatrick, 1994, p. 22). In order for change to occur the participant 1) must have a desire to change, 2) must know what to do and how to do it, 3) must work in the right climate (one **conducive** to using new skills), and 4) must be rewarded for changing (Kirkpatrick, 1994, p. 23).

This level of evaluation **determines** which skills are "**transferred**" back to the job, the success of the training in establishing **those** skills. what skills were needed on the job but not part of the training, and which learned skills are still not **being** used (Basarab and Root, 1992, p. 11). In skill **transfer**, participants are faced with the following questions: 1) is the newly-learned skill **appropriate** in their situation; 2) can the skill be modified to fit other situations. and 3) if it doesn't work, should they continue to try and use it (Dixon, 1990, p. 91) Consequently, when evaluating programs at this level (determining behavior change), trainers also need to collect data on what constrains participants from using what they learned (Dixon, 1990. p. 7).

This depth of evaluation **involves the** "major purpose of training--change in the participant's job performance as a result of new knowledge and skills ..." (Caffarella, 1988, p. 191). Performance measures are the tools used to gauge the actual skills. knowledge and attitude changes in participants after a **learning** event (Dixon, 1990, p. 39). For example, **performance** measures may be established to test "transfer" by observing how a training participant deals with an angry customer, faces a tough hiring or firing decision, or composes a memo (Kelly, 1982. p. 102). In order to fully evaluate programs for behavior change, the employees' knowledge and skills should be determined before and after training, using a control group, if possible (Basarab and Root, 1992, p. 12). And because many skills decrease in accuracy over time **due** to the lack of feedback or infrequency of use, follow-up measures are needed which aim at "relearning."

Often Level 3 evaluation is administered using two of the following: questionnaires mailed to participants; their managers, and peers/subordinates; on the job action plans created in training and later reviewed; interviews with participants, their managers, their peers/subordinates; or observation of participants performing job skills before and after the training (Basarab and Root, 1992, p. 11). Ideally, the before and after observation on the job would be preferable. However, if indirect methods are

used, two methods may be used to **compensate** for employee bias and subjectivity. If post-training measurements are valid, they must measure **actual** performance (Level 3) not the **ability** to perform (Level 2) (Brinkerhoff, 1988, p. 132).

The **U.S.** Office of Personnel Management (1980) provides documentation outlining Level 3 evaluation using a follow-up method. Titled, "Assessing Changes in Job Behavior **Due** to Training," the document provides alternative **methods** for determining how participants changed **their job behavior** as a result of attending a training program. **The** basic principles include having participants **develop** action plans at the **end** of training (lists of behaviors **they** want to try out when they return to their jobs). **After** some time has **elapsed**, **the** participants are **contacted** to see what changes **they** have actually **been** able to implement. Although this method of follow-up does have shortfalls including participant bias, truthfulness, and participants providing their definition of "change," it is efficient and offers an additional avenue to validate information **received** in direct **interviews** with managers, employees and **co-workers**.

Level 3 training program evaluation can be a very valuable asset when used in an organization to determine if training "took" and tied directly to an employee's performance and appraisal. In fact, it is necessary to **measure** both **Level 2**, learning, and Level 3, behavior change, because participants may learn knowledge and skills but not be encouraged or allowed to use what they learned when they return to work. This would indicate factors other than training affect participants **performance** on the job (Kirkpatrick, 1994, p. 42).

To further clarify the difference between "**learning**" and "behavior change," **Kirkpatrick** tells **the** story of Herman, the foreman of a Milwaukee company **where** Kirkpatrick was hired to do a training session (Kirkpatrick, 1979, p. 86). Herman portrayed a good understanding of **the** material and human relations principles and techniques. He had all the right answers in class. Kirkpatrick was so impressed **with** **Herman** that Kirkpatrick asked his cousin, who also worked at the company, about

Herman. The cousin replied, "Herman may know all the principles and techniques of human relations, but he certainly does not practice them." In sum, Herman is clearly an example of "passing Level 2" and "failing Level 3."

In summary, measuring behavior is more costly than measuring the two previous levels; therefore, it is done less frequently. However, if a training program supports an organization's major initiatives which are deemed essential to its success, evaluation should be done at the **behavior change level**.

Level 4 Evaluation

Level 4 program evaluation concentrates on the final results that occurred **because** the participants attended the program (Kirkpatrick, 1994, p. 25). Measuring what the taxpayers are getting for their money dates back to Taylor's scientific management theory (**Knott and Miller**, 1987, p. 60). Although results have often been measured by profit and return on investment, organizations are now including measures of performance based on training, **employee** retention, customer satisfaction, and quality (Hequet, 1996, p. 41). **In** order for training results to be evaluated using profit measurements, **cost/benefit** analyses must be examined and accounting records acquired to determine the return on investment. As one might expect, this level of evaluation can be **very** expensive and **time** consuming; therefore, **Level 4** evaluation is rarely performed.

Which Level Evaluation Methods Do You Use?

When determining which levels of evaluation to **incorporate** in a training **program**, reaction (how the participant **feels** about **the** training program) is the easiest **dimension** to **measure**. It is also the **least** informative method of evaluation. Conversely, the most difficult dimension to evaluate (the effects the training had on **the** agency as a whole) is **the** most informative. Efficiency and effectiveness include so

many variables, it is very difficult to isolate and measure the impact of a training program on the organization as a whole (Dresang, 1984, p. 238). Consequently, organizations will generally choose methods of program evaluation which appear most feasible in resources such as time, staff, and money.

In order for an organization to fully evaluate the effectiveness of training, it is desirable for management, employees, and training specialists to work together to determine training needs. After the training is presented, these three groups work together to determine 1) if the training met the identified need and 2) if the knowledge and skills taught in the classroom are used on the job. Therefore, from a systems perspective, members of the organization work together through partnerships to assess the total value of the training program (Basarab and Root, 1992, p. 2). In fact, the "whole organization will become the unit of analysis for learning" and evaluation (Kramlinger, 1992, p. 48).

Systems Approach to Training

Systems analyses conceptualizes training as a system within a larger system. It is an operating system which combines interrelated processes and programs of the training department, organizational objectives and employee needs within the larger organization (London, 1989, p. 28). Through this systems perspective, training, as all other systems, is composed of requirements, resources, and results. Requirements set forth the goals of training. Training produces results, measured in terms of effectiveness, to meet those requirements. Resources are consumed through the training process, constituting the cost of training (Carr, 1992, p. 60).

Consequently, training programs support, and are evaluated through, other organizational systems. Ultimately, these programs contribute to individual department and organizational goals.²⁵ Supporting other organizational systems includes that of

²⁵ See Carnevale and Schulz, 1990, s-16; London, 1989, p. 273; and Brandenburg, 1989, p. 83.

management. In **turn**, training is in a position to also **need** management support and participation in training programs. This is **one** of the many challenges facing training professionals today.

Challenges in Evaluating the Effectiveness of Training

There is a complex set of factors that works against a complete, systematic process of training evaluation (Sanders, 1989, p. 69). Some of these **factors** are the process itself, the organization's **culture**,²⁶ the culture of training **departments**, and a historical lack of rigor in training evaluation. For years, many training departments have evaluated their training using the "BISNOC" method: "butts in **seats/number** of courses" (Pulley, 1994, p. 19). Also, training departments have designed courses to create awareness and understanding, but not competence (Berry, 1990, p. 21). This lack of focus toward training's effectiveness has contributed to the training function being seen by management, not as an integral organizational system, but one on **the** periphery of the organization. This viewpoint breeds an organizational culture, both in the training department and in organizational management, that the training department plays only a supportive role, one of little value to the organization. In this context, training departments which have not demonstrated their worth pay the price of their non-proven value.

Another challenge to training departments is the organizational **culture** where there is lack of management participation in assessing 1) what type of training employes need followed by 2) what new knowledge and skills employees gain through training. "On any given day, managers would rather see their employees working on the job rather than in a classroom ... learning how to become more **efficient**. The costs of training are always easier to see than the costs of not training" (Hassett, 1992, p. 53.) It is not uncommon for managers to complain that many of their employees never

²⁶ See **Berry**, 1990, p. 21 for a definition of organizational culture

reach an adequate level of performance on the job, yet few of them work with training departments to develop training to **meet the specific needs** of their staff. Mary Broad and John Newstrom (1992, p. 22) list four **primary** sources for responsibility in transfer of training back to the job: **the** trainees, the trainer, the **direct** manager of **the** trainee, and the organizational environment. Of these sources, Broad and Newstrom **believe** managers hold the most significant keys to resolving the problem of transfer of training: therefore, uninvolved management is a primary target for change (p. 23). So how do training departments **get** managers involved in the **process** and **results** of training evaluation?

Conclusion

Management may be encouraged to participate in training evaluation if they can actually see the knowledge and skills which **employees achieve** through training. This may lead managers to place as great a value on training and development programs as they do other programs within the organization (Gill, 1989, p. 36). If the purpose of training evaluation is to **determine** if management-desired behaviors did occur as a result of the training, i.e., cause-and-effect, then training evaluation is a system of accountability where management and the training departments work as **partners**.²⁷ This allows the organization to "distinguish between training administered as an **activity** and training administered for [organizational] ... **impact**" (Brinkerhoff, 1989, p. 8).

Because evaluating training results is a new endeavor in state government, this case study involving management's participation in the **process** of evaluation reaches beyond what is currently documented.

Consequently, this research lays the groundwork for a developing partnerships between the training department at the Texas Department of Insurance (TDI) and management. This case study explores four questions: I) Do the Texas **Department**

²⁷ Carnvale and Schulz, 1990, p. s-24, s-2; Blumenfeld, 1974, p. 4

of Insurance managers evaluate the training which their **employees attend** through observing performance changes back on **the** job? 2) If so, do TDI managers with **greater** management tenure **more** often evaluate training at a "behavioral" level than do managers with less tenure? 3) If managers do not evaluate training through "behavioral" changes, what do they do to determine if training has made a difference in performance? 4) If managers do not **evaluate** the effectiveness of training which their employees attend, what resources or processes would enable or motivate them to do so?

In the next chapter, the setting for the empirical study, the Texas Department of Insurance, is introduced. This case study provides **the** foundation for a **management-**training department partnership by determining what **TDI's** training department can do to support management's involvement in evaluating the effectiveness of training.

Chapter 3

Legal and Historical Setting

Introduction

The previous chapter reviewed the **literature** on training **evaluation**, management initiatives for employee performance, and organizational performance measures. It also established the **need** for training **departments** and management to work together as partners to evaluate training results.

The **purpose** of this chapter is to establish a legal and historical foundation for the research involving training at the **Texas Department** of Insurance (TDI), a state agency charged with the mission of regulating all insurance industry doing business in the state. The chapter also discusses a history of performance measures in Texas, providing a foundation for the current movement toward the use of performance measures in training. The chapter concludes with the conceptual frame work and working hypotheses.

History of the Texas Department of Insurance

The history of the Texas Department of **Insurance**²⁸ dates back to 1874 when the 14th Legislature passed a law regulating **the** life and health insurance business in **Texas**.²⁹ These first attempts at regulating insurance business in the state were due to a growing economy and population and the problems that were generated: wildcat insurance schemes. Although there was no insurance department in existence at this time, the Legislature did give the State Comptroller of Public Accounts supervisory authority over insurance.

²⁸ Although the agency's **name** has changed several **times** over **the** years, TDI will be used when appropriate for **consistency**.

²⁹ **Information** related to **TDI's history** was provided by the **Public Information Office**, TDI.

In 1876, the 15th Legislature **created** the **Department** of Insurance. Statistics and History. The commissioner was charged with keeping information and statistics on the state's population, wealth and general resources. He was also the **state** historian, state librarian, and superintendent of public grounds and buildings.

In 1887, the 20th Legislature expanded the office of the commissioner and added agriculture to the commissioner's authority, renaming the agency the Department of Agriculture, Insurance, Statistics and History. Insurance business continued to grow near the turn of the century and by 1900, 138 licensed insurance companies of all types operated in Texas and premium income on Texas companies reached almost \$10 million.

In 1907, the 30th Legislature created the **office** of Commissioner of Agriculture which separated from the department and renamed it the Department of Insurance and Banking. The functions dealing with statistics and history were absorbed gradually by the office of **the** State Librarian.

In 1909, the Commissioner of Insurance and Banking was also made chair of the newly created Fire Insurance Rating Board which held the primary responsibility of preventing discrimination in insurance rates. The fire rating board was replaced by the State Insurance Board in 1910 and given authority to promulgate fire rates.

In 1923, the 38th Legislature finally **created** separate departments of Insurance and Banking, each headed by a separate commissioner. The Legislature also transferred **rate** making authority in the area of workmen's compensation from the Texas Employer's Insurance Association (TEIA) to the **State** Fire Insurance Commission.

The 40th Legislature passed an act creating the Board of Insurance Commissioners in 1927. The Board was composed of the Life Insurance Commissioner (also the chair), Fire Insurance Commissioner and Casualty Insurance Commissioner.

The State Board of Insurance was created by the 55th Legislature in 1957. The **Board** was responsible for hiring a Commissioner of Insurance. The Commissioner also served as State Fire Marshal until the 64th **Legislature** created a separate State Fire Marshal's Office.

Both the SFMO and the Office of Consumer Protection (OCP) were created in 1987 to represent consumer interests. OCP is now known as the Office of Public Insurance Counsel (**OPIC**). The **State** Fire Marshal's Office is now part of the Texas Commission on Fire Protection.

Under terms of sunset **legislation** passed in 1993, most of the Board's authority transferred to a Commissioner appointed by the **Governor** (and confirmed by **the** Texas Senate) for a two-year term. On November 18, 1993, the Board voted unanimously to turn over full authority to the Commissioner as of December 16, 1993.

Recent **Expansion** and Contraction of TDI

Over **the** past 10 years, what is now known as the Texas **Department** of Insurance grew to almost 1600 employees, then downsized to its current 935. In 1988 over 500 employees were hired, greatly **affecting** the organization's **need** for training, greater communication, and general **restructuring**.³⁰ Part of this expansion was due to the agency being combined with other agencies such as the Fire Marshal's Office and the Office of Consumer **Protection**. However, with the **insolvency** of National County Mutual in 1988 and the bad publicity which followed, the Texas Department of Insurance has been under Legislative scrutiny and has downsized, especially in the past four years. In fact, **the** number of TDI employees was legislatively-capped at 935 employee positions in 1995. Some of TDI's downsizing was due to changes in function, **transferring** agency functions to other state agencies, and privatization. For example, the taxing department which collects taxes **from** insurance companies was ,

³⁰ TDI document: **A Proposal for Staff Development Services at the State Board of Insurance**, 1988.

moved from TDI to the State Comptroller's Office in 1994. The Liquidation and the financing responsibility of the Regulation and Safety Division were privatized, leaving only oversight groups within TDI's authority.

Currently, TDI employs approximately 935 employees, 105 of which are managers.³¹ TDI is responsible for the following functional areas:

- granting authority to do insurance business in Texas;
- reviewing insurance rates and policies;
- monitoring insurance companies for solvency;
- monitoring and improving the performance of insurance markets; and
- enforcing the Texas Insurance Code (law).

Other Texas government activities and agencies have also influenced TDI's history. These activities include efficiency reports, such as Griffenhagen and Associates discussed below, and the creation of the Legislative Budget Board with its requirements.

History of performance Measures in Texas State Government

It might be said that performance measures in Texas State government began with a 1932-1933 report on efficiency in Texas state government.³²

A capable, wellqualified employee often finds it impossible to give the service of which he is capable because of the limitations of an awkward organization and the hampering effects of red tape and poorly designed routines. And managing authorities, even when carefully chosen and well qualified, cannot attain more than moderate degrees of success if the organizations through which

³¹ The term "managers" is used generically to denote all employees in a supervisory role.

³² Griffenhagen and Associates had several interesting suggestions for efficiency including transferring the taxing responsibility of the Department of Insurance to the state's taxing agency (Part V, p. 10) [now accomplished]; abolishing the Department of Insurance's Board and appointing a Commissioner (Part V, p. 13) [accomplished]; and combining the Treasury with the state's taxing agency (Pan I, p. 21). This report to the Legislature also recommended abolishing Southwest Texas State University (Pan X, p. 196).

they function are not designed for **effective service** and to supply them with **the** essential elements and agencies of **direction** and control. (Griffenhagen and Associates, 1932-1933, Part 1, p. 3)

In **reviewing** the literature on Taylorism, this report follows the trends in public administration toward efficiency, organization structure, and organizational control. In **measuring** agencies' work products, organizations' hierarchical structures, staffing and functions, **Griffenhagen** and Associates **suggested** several changes, many of which have been implemented within the last five years.³³ For **example**, two of their recommendations were to disband the three-member Insurance Board and replace it with a Commissioner. This was **accomplished** in 1993. Another recommendation was for the taxing responsibility of the Texas **Department** of Insurance to be merged with other state taxing authorities. TDI's tax administration department was, in fact, moved to the State Comptroller's Office in 1993.

Another influence on the Texas Department of Insurance, particularly in the last five years, is the "movement" from the federal government down to performance measures.

Performance measures are not only the focus at a state **agency** level, but also at a federal level with federal **performance** reviews with **leaders** referring to such authors as Osborne and Gaebler using their **phrase** "what gets measured gets done".

What is counted shapes and **influences** the behavior of the organization. It helps make public policy practicable, gets it out in the field, on the ground. And it leaves a trail. The simple act of **defining** measures is extremely enlightening to many organizations. ... When the measurement process starts ... people **immediately** begin to think about the goals of the organization. (Osborne and Gaebler, 1992, p. 147)

Although it appears to have taken performance measures initiatives several years to fully develop, measurement and government efficiency is linked directly to

³³ See Griffenhagen and Associates, a thirteen volume study on organizational structure and efficiency in Texas governmental agencies, 1932-1933.

³⁴ Osborne and Gaebler, 1992, p. 146-147.

most agency functions and funding today. In Texas, the Legislative Budget Board (LBB) has greatly influenced all state agencies by their focus on measurement. Several TDI functions are directly linked, through **performance** measures, to the strategic plan for funding.

The Legislative Budget Board (LBB) was created in 1949.³⁵ The LBB's function is to develop recommendations for **legislative** appropriations and **performance** standards for all state agencies of state government. The LBB's responsibilities include transmitting copies of the board's recommended General Appropriations Bill draft and Legislative Budget Estimates to all members of the Legislature and to the Governor. The bill **draft** and budget estimates are products of a review process that includes a public hearing on each agency budget request and an LBB staff analysis of each agency's **expenditures** and **performance** results. **Recommendations** are submitted to the board for final review and approval prior to publication and **distribution**.

House Bill 2009, enacted in 1991, **directed** the LBB, in cooperation with the Governor's **Office**, to **develop** a long-range strategic plan for Texas. In response to this legislation and to decisions to reform the state's budget process, the board developed a new system of strategic planning and **performance budgeting** during 1991 and 1992. The system includes development of long-range strategic plans by individual agencies and a revised budget request process which incorporates each agency's strategic plan into its request for legislative appropriations. The General Appropriations Act now allocates each agency appropriation by goals and strategies and establishes key performance targets for each strategy. Additionally, the new strategic planning and **performance budgeting** system requires agencies to report actual performance data each quarter in order for the board to monitor progress toward the achievement of established performance targets.

LBB information **was** provided through LBB agency **document**.

With the Legislative Budget Board's focus on **performance** measures set forth in agency strategic plans which are tied directly to the Appropriations Act and funding, establishing **measures** and evaluating **those measures** has become commonplace in Texas state government. Training departments are also beginning to work toward establishing performance measures.

Within the next year, the Texas Department of Insurance will begin to tie employee performance to organizational strategic **goals**.³⁶ Training will be focused on determining gaps in performance and methods to remedy performance problems. Several methods of training design and delivery have already been **implemented** including **pre-** and **posttests**, **application-based activities** such as **case** studies, and the development of action plans.

In addition to the focus on tying training to employee performance, and employee performance directly to the organization's goals, the training department is also directed by legal issues at the state level. The need for administrative guidance in the area of training dates back to the Training Act of 1969. The Act and two Board **Orders** have been used to direct training in state government and TDI.

Legal and Administrative Documents Related to Training at TDI

The Training Act of 1969 established parameters for state funds to be used for training in state agencies. Briefly, the Act required state agencies 1) file training plans yearly with the Governor's office, 2) submit Board Orders related to the Act to the Governor for signature, 3) establish employee development plans which would include training, and 4) generally **use** state funds as **efficiently** as possible. The Act also required that all training be related to the current or prospective duty assignments of the participants.

³⁶ Personal knowledge of the **author**.

TDI Board Order No. 36791 dated February 13, 1980 provided agency training guidelines with fairly narrow interpretation primarily focused on efficiency and effectiveness.³⁷ For example, employees could not attend training unless the regular duties of the employee could be absorbed by fellow workers and, therefore, would not necessitate hiring temporary employees for replacement during the training period. Agency training was targeted to the benefits which the State would derive through the improved performance of the employees. Also, a written contract between the employee and the Commissioner of Insurance was required to ensure the employee would remain employed by the agency for a given period of time once trained, allowing the State to receive the full benefit of the trained employee. Finally, the Board Order required an analysis of the effectiveness of each training course to be conducted by surveying participants and their supervisors. (There is no agency documentation that these analyses were performed.)

A memo from Governor Mark White to the Chairman of the Board of TDI dated November 14, 1985 offered support of training and reinforced the need to ensure State funds used for training were appropriately and prudently spent. His memo also suggested the Texas Commission on Economy and Efficiency in State Government, as part of their charge, consider methods by which agencies may directly benefit from employee participation in training.

TDI's Board Order No. 49017 dated June 5, 1986 essentially duplicated the previous Board Order but added guidelines for college tuition reimbursement and time off in lieu of reimbursement. These guidelines included provisions whereby an employee was required to remain employed by TDI for a specific period of time or reimburse TDI when separating before that designated time period.

³⁷ TDI agency documents.

Today, **employee** training at the Texas **Department** of Insurance is authorized through the Texas Government Code **ss 656.044-656.049** and outlined for employees in **TDI's Employee Handbook**. The provisions are as follows:

- the training or education must **be** related to the duties or prospective duties of the **employee**.³⁸
- an employee may be required to attend, as part of **the employee's** duties, a training or education program **related** to the **employee's** duties or prospective **duties**.³⁹
- the training and education program may include: preparing for technological and legal **developments**; increasing work capabilities; increasing the number of qualified employees in areas designated by institutions of higher education as having an acute faculty shortage; and, increasing the competence of agency **employees**.⁴⁰
- state agencies may **spend** public funds as appropriate to pay the salary, tuition and other fees, travel and living expenses, training stipend, expense of training materials, and **other** necessary **expenses** of an instructor, student, or other participant in a training or education **program**.⁴¹
- state agencies may contract with another state, local, or federal department, agency, or institution, including a state-supported **college** or university, to train or educate its employees or may join in presenting a training or educational **program**.⁴²
- approval to participate in a training program is not automatic and may be subject to the availability of funds within a division's **budget**.⁴³

History of Training at TDI

TDI's **first** formal training programs, administered in the mid **1980s**, were coordinated through the Personnel **Office**.⁴⁴ These programs consisted of new

³⁸ See Tex. Gov't Code **ss 656.044**.

³⁹ See Tex. Gov't Code **ss 656.045**.

⁴⁰ See Tex. Gov't Code **ss 656.046**.

⁴¹ See Tex. Gov't Code **ss 656.047**.

⁴² See Tex. Gov't Code **ss 656.049**.

⁴³ See TDI Employee Handbook, November **1995**, p. 85.

⁴⁴ Information confirmed with Alexis Dick, *former Asst. Personnel Director*, TDI.

employee orientation, on-site courses through Austin Community College (ACC)⁴⁵ and other short training courses as indicated through needs assessments.

In 1988, TDI's first formal training department was established.⁴⁶ It consisted of a manager, support person, and two administrative technicians. The department's main functions were to provide materials for self-study insurance courses and testing, coordinate training with outside vendors, and coordinate on-site ACC courses on insurance and business-related topics.

The agency training proposal⁴⁷ indicated 500 employees were hired in FY 1988 necessitating a training needs assessment and a plan to provide needed training. In light of the proposed research, of particular interest was the finding in this proposal⁴⁸ that in no training which employees had attended was there a measurement of learning experience or proof that the training was beneficial to the employee's job performance. Therefore, the proposal questioned the value of the training, stating "there is no evidence that participants comprehended or can apply the training" and "training is rarely evaluated by the participants and their supervisor for applicability and retention."⁴⁹ This 1988 study concluded that while TDI had "expended thousands of dollars on training" that year, there was very little information as to the training's value or benefit to TDI. Furthermore, the agency had had no control over the purpose of training, its content or the expected results of the employees' training experiences. In sum, more continuity, accountability, and documentation in training was desired.

The training department hired its first management trainer in April, 1990.⁵⁰ This full-time management trainer position was established to address a need for better

⁴⁵ Austin Community College provided on-site college courses to TDI employees from 1984-1993 as indicated in agency documents.

⁴⁶ Agency document: A Proposal for Staff Development Services at the State Board of Insurance. August, 1988.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Through personal knowledge of author who was promoted to the training department in May, 1990.

agency management. This need was identified by upper **management** and followed in the "wake" of the National County Mutual demise which negatively impacted this agency.

Although **TDI's** training program has undergone many changes since hiring its **first** professional trainer in 1990, **the** department remains small, consisting of **three** trainers, a manager and support person. **The** department **hired** its first **insurance** trainer in mid-1995 to provide technical insurance training, adding to its responsibilities of new employee orientation, management, and employee training functions. The department also brokers training for the agency when a training **need** is identified which is not within **the** department's **expertise**.

Currently, **TDI's** training department performs training evaluation by **collecting** reaction data (Level 1 evaluation) through forms when the training event is **completed**.⁵¹ Some training evaluation data has been collected to determine what was learned (Level 2 evaluation). The training department must begin to capture Level 3 data to determine what employee behaviors change back on the job as a result of the training. Capturing "behavioral" level data is important for two reasons. Training departments need to be able to document their worth to the agency in **order** to move, from the periphery of the organization where the department is often **viewed** as a support function, to playing an integral role in the whole performance **management** system. Secondly, the Texas State Auditors **Office** is **looking** for documentation of agencies' training performance for efficiency and **effectiveness** in **state government**.⁵²

To begin this endeavor, the training department has **begun** designing pre- and posttests, skills practice, hands-on application of training, and action plans into training programs, integrating methods for effectiveness and evaluation into **TDI's** culture. The next step will be to lay the groundwork for training department-management

⁵¹ **Personal knowledge of author.**

⁵² **Personal knowledge of author.**

partnerships by determining what managers are currently doing themselves to evaluate the effectiveness of TDI's training.

Conceptual Framework

The importance of measuring organizational goals, employee performance, and training evaluation can be traced to Weberian and scientific management theories such as Taylor. The literature review, Chapter 2, documents a historical progression from early public administration theories concerning organizational structure, employee work methods and performance measures from the late 1800s to a present day focus on performance measures enacted in the 1991 Texas legislature. As the economy and budgets strive for more efficiency, governments will use methods such as performance measures to ensure the taxpayer gets the most for the dollar.

Underlying organizational performance measures is the drive to make the employee more effective and efficient (producing more with less). Training, of course, plays an integral part in ensuring employees are as effective in their jobs as possible. Therefore, training departments are also being placed in a position to develop performance measures and, thereby, prove their effectiveness within the organization. Nancy Dixon states, "[Training] performance measures are tools that measure the actual skills and knowledge ... of participants in learning events [They] can be categorized as ... measures of usage and measures of retention" (1990, pp. 39-40). Therefore, training evaluation used to determine, not only learning in the classroom, but also observed changes in job performance, are categorized as performance measures.

Organizational management is the turn-key for training departments and employees. Management is positioned to support or discontinue training for employees, assessing employee needs initially, and evaluating the results by observing changes in job performance once the employee is trained.

It is appropriate that the conceptual framework for this case study is based on four working hypotheses used to **determine management's** current level of participation in evaluating training at TDI.

- WH_{1a}** TDI managers do not evaluate the effectiveness of the training through observing if newly-acquired knowledge or skills are used on the job. (Kirkpatrick's Level 3 evaluation, "behavior change")
- WH_{1b}** TDI managers evaluate training through methods related to employees' learning. (Kirkpatrick's Level 2 evaluation)
- WH_{1c}** TDI managers with 15+ years tenure as managers are more likely than less tenured managers to evaluate training through observing changes in employee behavior.
- WH_{2a}** TDI managers would evaluate training at a "behavioral" level if they had more time.
- WH_{2b}** TDI managers would evaluate training at a "behavioral" level if they could see the benefit in the assessment.

The researcher expects to find these hypotheses **confirmed** through the case study research using survey and interview methodology. The next chapter focuses on the methodology used in the case study administered at TDI.

Chapter 4

Research Methodology

Introduction: **C**ase Study

This chapter explains the basic research design used for this case study and outlines the data collection strategy employed by the researcher. A case study, as identified by Yin, is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (1994, p. 13). In supporting Yin's statement, Earl Babbie (1992, p. 286) suggests case study research is **especially** appropriate for topics for which "attitudes and behaviors **can** best be understood within their natural **setting**." The objectives and design for a **case** study are **based** on these propositions or hypotheses (Yin, 1994, p. 103). Therefore, administration of the case study research at TDI applies to the criteria proposed by Babbie and Yin and is appropriate for identifying the current level of management participation in training evaluation.

Earl Babbie (1992, p. 306) notes that case study research has a number of weaknesses, however. One weakness, being qualitative rather than quantitative, makes the research less precise when describing attributes about a large population (Yin, 1994, p. 10). Also, conclusions drawn from qualitative research are often "regarded as suggestive rather than definitive" (Babbie, 1992, p. 306). This suggestive nature involves reliability problems in case study research. Other **weaknesses** of case studies are their perceived lack of rigor, inclusion of bias, and less desired form of inquiry (Yin, 1994, pp. 9-10). To strengthen case study research, Robert Yin supports using triangulation methods **such** as surveys, **interviews**, and research to strengthen the data collection and findings or conclusions (pp. 13.91-92). Therefore, three techniques, surveys, interviews, and agency documents, are used to support the case study.

Robert Yin suggests "what"-type questions (such as what are TDI managers doing to evaluate training) are exploratory and are, therefore, used to "develop pertinent hypotheses and propositions" (1994, p. 5). Earl Babbie (1992, p. 90) states three purposes for doing exploratory research: 1) to **satisfy** the researcher's curiosity and desire for better understanding, 2) to test the feasibility of undertaking a more careful study, and 3) to develop the methods to be employed in a more careful study. This case study satisfies all three of these **purposes**, providing TDI's training department with a better understanding of management's participation in training evaluation and creating a foundation for future training initiatives.

Survey Research

"Surveys may be used for descriptive, explanatory, and exploratory purposes" (Wagenaar and Babbie, 1995, p. 154). Survey research has several strengths. It is often used to observe populations which are too large to observe directly (Babbie, 1992, p. 262). Also, standardized questions on the survey instrument provide methods to apply definitions **uniformly** to all **those** surveyed (Babbie, 1992, p. 278). Finally, respondents may be more truthful when completing self-administered, anonymous **surveys** than when face-to-face with an interviewer.

However, survey research has some weaknesses. First, the standardized questions (given above as a strength) can also be a weakness through attempting to design a questionnaire which includes all possible responses for those surveyed (Babbie, 1992, p. 279). Also, "surveys cannot measure social action; they can only collect self-reports of recalled past action or of prospective or hypothetical action" (Babbie, 1992, p. 279). This management survey will require managers to recall past action and predict prospective action.

Finally, survey research is weak on validity and strong on reliability (Wagenaar and Babbie, 1995, p. 156) The artificial **format** of survey instruments affects the

validity negatively; however, the standardized format also makes **the instrument more** reliable (Babbie, 1992, p. 279). Results from survey research is more reliable when used with other methods of research for triangulation.

Survey Sample

When determining a sample for a case study, representativeness is very important because responses from the survey need to represent actions, attitudes, or behaviors of the whole group. To overcome this **problem** with the **sample** not being representative, all TDI managers are to be surveyed. The down-side of this method is that the researcher cannot ensure that the **responses** which are received are representative of the total group.

TDI currently employs approximately 935 employees, 105 of which are managers. Surveys were distributed to all managers by **TDI's mailroom** using the **mailroom's** list of managers. The list consisted of pre-printed labels which were attached to the **survey cover** letter.

A high response rate for returned surveys often increases the probability that respondents are representative of the population being studied (Wagenaar and Babbie, 1995, pp. 154-155). A response rate of 50 percent is considered good (Babbie, 1992, p. 267). However, because response rates for TDI managers is historically lower than **50 percent**,⁵³ forty returned questionnaires are expected.

Survey Instrument

The survey questions designed for this case study are part of a larger survey instrument used by **TDI's training department** to gain management participation and support of training. In particular, this study focuses on management's current participation in training evaluation.

⁵³ Knowledge of author, **TDI** management trainer.

The **survey** instrument was pretested with **three TDI** managers, Karen **Ranspot**, Technical Analysis. **TDI**; Bruce **Truitt**, State Auditor's Office; and **several** TDI employees in positions related to the agency's business plan and **upper** management. Feedback for these persons was used *to refine* the survey format and questions.

The survey cover letter expressed the training **department's** need to establish performance measures, offered the training department's support in establishing a management-training department relationships, and encouraged managers to **complete** the survey. The memo also **affirmed** the training department's commitment to work with managers to assess current training needs and to design training to meet their needs.

Because of the complexity of the working hypotheses, two questions were used on the survey in order to compare responses. Refer to Appendix Questionnaire. questions 1 and 2. The first question on the survey, "I look for changes in my employees' skills and **knowledge** when they return **from** training." was **designed** for managers to more comfortably and realistically answer the question by allowing **them** to "qualify" their response by adding whether the agency supports the activity of **post-**training assessment. Refer to Appendix. question 1.

The second question provides alternative actions managers may take to determine the results of training. The survey was designed to intentionally combine "positive" actions for evaluating training results with less positive ones in hopes that managers would search out their "correct" answer. Managers were asked to rank order their **responses** according to their most **often** used methods.

The third question on the survey asked managers what resources they needed in order to evaluate training post hoc. Choices were provided for their **responses**. Respondents were asked to rank order their responses according to their most needed resources.

Interview Research

Interview research is an "essential source of case study evidence because most case studies are about human affairs" (Yin, 1994, p. 85). Interviews allow the researcher to make observations about and provide clarification to the person being interviewed (Wagenaar and Babbie, 1995, p. 155). Also, the response rate for interviews is usually higher than that of surveys (Wagenaar and Babbie, 1995, p. 155).

One weakness which is inherent in interview research is bias of the interviewer or bias (negative feelings) toward the interviewee. Also, the lack of respondent anonymity to potentially sensitive issues can lead to respondent bias (Babbie, 1992, p. 282).

Researchers use caution when developing interview questions in order to ensure the meaning is interpreted the same by all persons interviewed. The interviewer should ask the same questions to all those persons interviewed, ask the questions exactly as worded in the standardized format, and record responses exactly as stated (Babbie, 1992, p. 272).

Interview Sample

Ten managers from different divisions of the agency will be **interviewed** using a standardized format. The **responses** to the interviews will provide support to the survey.

Interview Instrument

The **interview** questions for this case study were developed from four working hypotheses. A standard format was developed in order to ask each manager the same question. The interview instrument was pretested with the **same** group as the survey: three TDI managers, a statistician, and upper management; and the representative from the State Auditor's office.

Two **primary** questions are used in **the** interview instrument. Refer to the Appendix, Interview questions. The first **questions** relate to whether managers do any type of post-training follow-up. If they answer affirmatively, the follow-up was "what" do they do? If respondents replied negatively to **the** first question (**they** don't do **post-training** follow-up or are **unsure** if **they** do), the second question asked what would **encourage** them to do post-training evaluation? The "open-ended" **nature** of the interview questions are designed to be **compatible** with those in the survey and will be used for comparison purposes.

Document Analysis

Document analysis **research** is appropriate for studying historical communications of an organization. The exactness of document analysis--that of names, dates and facts, provides **strength** to the research (Yin, **1994**, p. 80). Also, document analysis is **unobtrusive**, lending to its unbiased nature. It is often useful **when** studying trends or comparing past records (Babbie, 1992, p. **343**). Therefore, document analysis is appropriate for use in this **case** study.

Documents such as the 1988 Proposal for Staff Development Services, old agency Board Orders, and correspondence identifying past training initiatives and **agency** guidelines are used to support **the** surveys and interviews.

Operationalizing the Working Hypotheses

The following working hypotheses are provided with the supporting research methods and documentation for **each**.

WH_{1a} **TDI managers do not evaluate the effectiveness of the training through observing if newly-acquired knowledge or skills are used on the job. (Kirkpatrick's Level 3 evaluation, "behavior change")**

WH_{1b} TDI managers evaluate training through methods related to employees' learning. (Kirkpatrick's Level 2 evaluation)

Sources of Evidence for WH_{1a} and WH_{1b}

Survey:

One question related to whether managers "look for" changes in employee knowledge and skills when returning to the job. Another question provides managers the opportunity to choose what they do to determine if knowledge or skills have changed.

Interview:

The questions relate to whether managers do post-training evaluation when employees return from training. Follow-up questions ask "what" they do.

Document Analysis:

The 1988 Proposal for Staff Development Services provides a requirement that managers should evaluate the training which employees attend through methods such as Kirkpatrick's "learning" or "behavior change" evaluation. TDI Board Orders stress the need for training to be targeted toward the benefits the State and organization will receive through the training. This would logically involve some type of evaluation.

WH_{1c} TDI managers with 15+ years tenure as managers are more likely than less tenured managers to evaluate training through observing employee behavior change more.

Sources of Evidence for WH_{1c}

Survey Question:

One question was asked on the survey to determine the number of years the respondent had been in a supervisory position. By comparing this data with the responses to the survey questions related to behavior change, a correlation may develop.

WH_{2a} TDI managers would evaluate training at a "behavioral" level if they had more time.

WH_{2b} TDI managers would evaluate training at a "behavioral" level if they could see the benefit in the assessment.

Sources of Evidence for WH_{2a} and WH_{2b}

Survey:

One survey question was asked to determine what resources would enable managers to evaluate training at a "changed behavior" level. Included among several choices in the question were "more time" and "seeing the benefit in the assessment."

Interview:

One open-ended question was asked to determine what resources would enable managers to evaluate training at a "behavioral change" level

Conclusion

The methods used in this case study, surveys and interviews supported by document analysis, are used to test the working hypotheses. The researcher believes these methods, used in triangulation, will provide strength to the case study.

This researcher's employment with and knowledge of the Texas Department of Insurance, having been employed in the training department alone for six years, provides recent historical information and access to agency documents and resources. Her previously established relationships with agency management allow for candid interview responses.

The use of questionnaires and interviews along with corroborating agency documentation is a valid method of gathering and analyzing data for the purpose of this exploratory research. The results of the research are addressed in the following

chapter. The data collected is summarized in a table format and also presented in narrative form.

Chapter 5 Findings

Results and Analysis Introduction

The findings of this case study are presented and analyzed in this chapter. In addition, the working hypotheses are tested and those results are provided in table and text formats. Data from the thirty-two (32) returned survey responses and eight⁵³ (8) twenty-minute **interview** summaries is displayed according to its supporting hypothesis below. The 32 returned surveys represent a 33% return rate which was disappointing. See Appendix for completed survey instrument and interview questions.

Although twelve managers were contacted, eight managers were actually interviewed. Those managers interviewed represent Legal, Consumer Protection, Administrative Services (mail area), Financial, and Information Services. Three managers were interviewed from Regulation and Safety, the largest division within TDI. Refer to the Appendix for all **interview** comments.

Results and Analysis by Hypothesis

The following results and analysis is provided by hypothesis. Tables will be used to display results.

WH_{1a} TDI managers do not evaluate the effectiveness of the training through observing if newly-acquired knowledge or skills are used on the job. (Kirkpatrick's Level 3 evaluation, "behavior change")

WH_{1b} TDI managers evaluate training through methods related to employees' learning. (Kirkpatrick's Level 2 evaluation)

⁵⁴ The author contacted 15 managers, hoping to interview 10. Eight managers were interviewed.

The evidence does not appear to support working hypothesis 1a. The mean score of 2.63 indicates managers do observe behavior changes when employees return from training. See Table 5.1 below. This evidence is also supported by the 2.9 mean score indicating managers feel the activity is important and the 2.2 mean score indicating they feel the agency supports the activity.

Table 5.1
Management Observance of Change in Employee's Performance
N = 32

Activity	Degree to which you currently do the activity:	Degree of importance to you in doing:	Degree to which TDI supports this activity:
	1=never do 2=sometimes do 3=often do 4=always do	1=activity is not very important 2=activity neither helps nor hinders 3=activity is very important 4=activity is crucial	1=discourages 2=accepts 3=encourages 4=rewards
1.1 look for changes in my employees' skills and knowledge when they return from training.	2.63	2.91	2.20

Evidence displayed in Table 5.2 indicates managers observe behavior changes over 50 percent of the time: consequently working hypothesis 1a is not supported by the survey evidence.

Table 5.2
Management Involvement in Behavior Change (Post-Hoc)

Management Activities	Total Responses Received	Percentage
Observe behavioral changes	18	56%
Ask what was learned	28	87%
Have employee make presentation	11	34%
Discuss with employee how to use what was learned	11	34%
Do nothing	11	34%
Other	2	6%
No Response	1	3%

However, working hypothesis 1b is supported because 87 percent of managers use methods to determine what employees learned from training. See Table 5.2 above. Other methods such as "have employee make presentation" and "discuss with employee how to use what was learned" also received substantial responses.

When management methods which are displayed in Table 5.2 were ranked, managers indicated they most often "ask what was learned," followed by "observe behavioral changes" and "do nothing." See Appendix, Questionnaire.

Evidence from the interviews concurs with the survey in that 88 percent state they determine if employees' learning needs have been met when they return from training. Several methods were given including asking the employees "how was the training?" For a complete list of responses see Appendix, Interview Questions. Consequently, from interview data, working hypothesis 1a is not supported; working hypothesis 1b is supported.

WH_{1c} TDI managers with 15+ years tenure as managers are more likely than less tenured managers to evaluate training through observing employee behavior change more.

The mean score for management tenure for those managers responding to the survey was 11.59 years. Survey evidence is very "mixed" and does not support this hypothesis. See Tables 5.3 and 5.4 below. It does appear, however, that management with 20+ years management tenure may "discuss how to use what was learned" more often than managers in other tenure categories.

Table 5.3
Management Observance of Change in Employee Performance
By Management Tenure
N = 32

Activity	Degree to which you currently do the activity:	Degree of importance to you in doing:	Degree to which TDI supports this activity:
	1=never do 2=sometimes do 3=often do 4=always do	1=activity is not very important 2=activity neither helps nor hinders 3=activity is very important 4=activity is crucial	1=discourages 2=accepts 3=encourages 4=rewards
Less than 5 years	2.63	3.00	2.43
5-9 years	2.50	2.67	2.16
10-14 years	3.00	3.20	2.00
15-19 years	2.80	2.60	2.20
20+ years	2.71	3.14	2.29

Table 5.4
Management Responses to Employee
Training Evaluation by Tenure⁵⁵

Management Methods	Responses by Tenure				
	Less than 5 years	5-9 years	10-14 years	15-19 years	20+ years
Observe behavioral changes	4	4	3	4	4
Ask what was learned	6	6	5	4	6
Have employee make presentation	3	2	1	3	3
Discuss with employee how to use what was learned	1	3	1	1	6
Do nothing	5	1	1	1	2
Other methods	1	0	0	0	1
Number of Responses per Category	(8)	(7)	(5)	(5)	(7)

⁵⁵ Managers could choose as many responses as were appropriate.

WH_{2a} TDI managers would evaluate training at a "behavioral" level if they had more time.

WH_{2b} TDI managers would evaluate training at a "behavioral" level if they could see the benefit in the assessment.

Survey evidence supports both working hypotheses 2a and 2b. See Table 5.5 below. Evidence also shows managers would evaluate training at a "behavioral" level if they could see the organization values the assessment. When managers were asked to rank order their responses in Table 5.5 according to their **first** need, they responded "to see the benefit in the assessment. followed by "more time" and "to see the organization values it." See Appendix, Questionnaire.

Table 5.5
Processes Enabling Managers to Do
Training Evaluation at a Behavioral Level

(see Appendix for complete question)

Category of Response	No. of Responses
More time	15
To see the benefit in the assessment	16
To see that my manager values this assessment	9
To see that peer managers value it	4
To see that the organization values it	15
Other	6

Interview results also concur with the survey supporting both working hypotheses. See Appendix, Interview Questions.

Comparison of Survey and Interview Responses

Interview and survey **responses** indicate a **congruence** between survey and interview **questions**. Both indicate managers do some types of follow-up **when** employees return from training to determine what was "learned" or what "performance changes" managers observed.

Responses from both the survey and interviews indicate managers **need** "more time" and "seeing the benefit in it" to enable **them** to do training **evaluation** with **their** employees.

Conclusions

Chapter 5 has provided an analysis of the questions asked through two methods, survey and interviews. The document analysis provided only knowledge that training evaluation should be done by **management** (as far back as 1988). There appears to be consensus between these methods of analysis.

The next chapter will assimilate these findings, draw conclusions about findings, and suggest further research.

Chapter 6

Summary and Conclusions

Introduction

This chapter will summarize the applied research project methodology and results in light of the working hypotheses. Conclusions will be drawn from the findings, and recommendations for further study will be made.

Restatement of Research Purpose

The purpose of this case study **research** is to determine what actions TDI management is currently undertaking in order to assess (evaluate) the effectiveness of the training which their employees attend.

The researcher used agency documentation to determine what training evaluation needs have been **identified** (and not addressed) previously, and what has been done to meet those recommendations. This information provides a historical foundation for the case study.

The questionnaire and interviews were used to determine what methods management currently uses, if any, for training evaluation. One hundred-five managers were surveyed; thirty-two responded. Eight managers, representing six agency divisions, were interviewed.

Purpose Statement

The purpose of the research was to answer the following questions: what methods or techniques do TDI managers currently use to evaluate training results? Do they observe employee job performance **after** training to determine a difference? Are managers with 15+ years management experience more likely than those managers with less tenure to evaluate training through observing employee performance changes? **If**

managers do not evaluate training at a "changed **behavior**" level. what activities do they use, if any, to evaluate the effectiveness of **training** which their employees attend? And finally, what resources or processes would enable or encourage them to evaluate the training which their employees attend?

It was expected that research would show managers do not evaluate behavioral changes in their employees once they have been trained. However, this was not supported by the evidence. Results from the survey showed managers do evaluate employee performance after training. However, interview data indicates management participation is informal providing responses such as "I ask the employee what was learned in the class." Using Kirkpatrick's model of "learning" (Level 2 evaluation of training) and "behavior changes" back on the job (Level 3 evaluation of training), it appears that managers are using both methods for evaluating training.

This expectation of benefit would also be congruent with management responses for those with 15+ years of tenure indicate the need to tie "observing new behavior" to the value the organization puts on this assessment.

The research also appears to show a link between the two survey questions related to observing behavior changes. This would imply the managers "look for changes" most often by asking the employee what was learned from class, indicating a "learning" vs. "behavior change" approach for evaluating training results.

Most of those managers interviewed indicate training was informally evaluated by asking employees "what they learned" or "how was it?" Others indicated more formal approaches such as written reports or staff meeting presentations. Using Kirkpatrick's model, however, all eight of the interview responses would not qualify as Level 3 evaluation criteria to **determine** if the employee's **behavior** actually changed as a result of the training.

Finally, the evidence clearly supports the two working hypotheses related to the resources managers need in order to **evaluate** training on a "behavioral" level: more

time and seeing the benefit in the assessment. What was unexpected from the data was the high response that indicates managers need to see that the agency values doing a post-training assessment. However, this response is very closely tied to having "more time" because with a limited amount of time, managers will do 1) what they see the benefit in or 2) what they see the organization values (**often** through mandates, processes, policies, etc.).

The conclusion is drawn that managers do use some methods to discuss "learning" with their employees, albeit the employee's statement about what or how much was learned. Evidence also supports the fact that managers evaluate training by observing job performance **after** training. Therefore, both methods are being used, methods to determine learning and methods to observe behavioral changes.

Recommendations

Through this research the training department at TDI will **be** able to build on this knowledge and begin a partnership with managers, follow-up with employees, and move into "behavioral" level training evaluation. Because this movement involves a culture change, and because managers indicated by their responses they need to see the benefits in this process, the training department will need to begin by educating managers as to the benefit of assessing behavioral changes in employees once they are trained.

In fact, this "education" process may have begun with pretesting the survey instrument with TDI managers and through **the** survey itself. Comments were received such as "I never thought about the need to do this before now, but now I've thought about it and realize the need." Through distribution of the survey, it appears managers have been made aware of **the** need to do something when employees return from training. The education process will involve the "what" and "how."

Discussion of Limitations of the Study

A weakness of any **case** study is that it is **regarded** as "suggestive **rather** than definitive" (Babbie, 1992, p. 306). This suggestive nature involves reliability problems in case study research.

Another limitation of **the** study has to do with how **truthful TDI** management was when responding to the survey and interview questions. Additionally, if only 33 % of management responded, it is not possible to determine if this 33% is representative of the 105 **TDI** managers.

A third limitation may be that the researcher is **very** much involved in **the** training processes as a management trainer at TDI and may have biased the study with her **interpretations** or influences. This, **however**, would be inherent in any case study of relative personal value and interest to the **researcher**, especially **where** the researcher's work place and organizational culture was involved.

Finally, the study was limited by the lack of literature in the area of management involvement in training evaluation, particularly at a level where managers would formally determine what new, post-training knowledge and skills employees could demonstrate back on the job. Also, using **performance** measures for evaluating training is a relatively new topic offering very little literature. The lack of subject-matter literature is a limitation; however, it also **makes** this case study very valuable in public **administration** research.

Recommendations for Further Research

Further examination and research into the manager's role in **evaluating** training at a behavioral level is needed. Kirkpatrick is quick to point out the non-transferability of data from one organization to another where training is involved (Kirkpatrick, 1975, p. 1).

The Kirkpatrick **model provides** good guidelines, management practices, and training processes which involve the **whole** organization as a total system working in concert. **The** training department should be able to **use** this case study specifically to address the **immediate** need to **educate** managers regarding training evaluation, solicit upper management support, and **educate** themselves for developing processes related to training evaluation.

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APPENDIX

Questionnaires were distributed to **105** managers. Thirty-two (**32**) responses were received, reflecting at 33% response rate. The responses were averaged on Question 1 and displayed in total on Questions 2 and 3. Responses are **provided** in bold type.

Questionnaire

The purpose of this questionnaire is to **determine** how TDI managers plan for and evaluate the usefulness of **training** presented by the **Professional Development Center**. Human Resources.

Activity	Degree to which you currently do the activity:	Degree of importance to you in doing:	Degree to which TDI supports this activity:
1. I look for changes in my employees' skills and knowledge when they return from training.	1-never do (1) 2-sometimes do (12) 3-often do (11) 4= always do (8)	1-activity is not very important (0) 2-activity neither helps nor hinders (8) 3-activity is very important (19) 4-activity is crucial (5)	1-discourages (0) 2-accepts (18) 25 = (1) 3-encourages (11) 4-rewards (0) No Response (2)

For the following question, please check all applicable boxes. Then rank order the three responses you do most often.

2. **When an employee returns from training,**

	# of Responses Checked ⁵⁶	
A.	18	I determine if the learning need has been met by observing behavioral changes.
B.	28	I ask the employee what was learned from the class.
C.	11	I have the employee make a presentation to the work group regarding what was learned.
D.	11	I meet with the employee and plan how he/she will use what was learned.
E.	11	I do nothing.
F.	2	I have a formal process to follow-up on employee learning needs once the employee is trained. That process is: written report; job evaluation
G.	1	No response to question.

Rank order the boxes checked above according to which you do:

most often (B): second most often (A); third (E)⁵⁷.

⁵⁶ Managers could choose as many responses as were appropriate.

⁵⁷ Choices A and E rank second and third according to their ranking, not according to the number of managers choosing that response.

3. What would encourage or enable you to assess whether employees are using newly acquired knowledge and skills once they have attended training?

	# of Responses Checked⁵⁸	Possible Responses
A.	15	more time.
B.	16	to see the benefit in this assessment.
C.	9	to see that my manager values this assessment.
D.	4	to see that peer managers value it.
E.	15	to see that the organization values it.
F.	6	other: a system/ an accurate assessment of what they received and how it should help/ job performance/ observe their performance/ being able to observe them directly on the job. This however is not feasible.
G.	2	No response to question.

Rank order the boxes checked above according to which you need:

the most (B); second most (A); third (E)⁵⁹.

I have supervised employees for (11.59) years.

⁵⁸ Managers could choose as many responses as were appropriate.

⁵⁹ Choices A and E rank second and third according to their ranking, not according to the number of managers choosing that response.

IS managers were contacted for an interview. Eight managers were interviewed in March, 1996.

Interview Questions

1. When employees return from training, do you determine if their learning needs have been met? Yes (7) No (0) Tough Question (1)

If so, how?

Yes, I discuss it informally with the employee. The legal division offers their own training related to what managers and employees feel they need--usually insurance related.

Tough question. It's hard to determine sometimes.

Yes, I have employees make a presentation in weekly staff meeting; discuss what was learned and how to apply it.

Yes, through formal written report from the employee when they **return** from training.

[name] does this **formally** with training evaluation for our financial training programs. I informally poll my people.

Yes, our Associate Commissioner now mandates a report from the employee regarding what was learned, etc.

Not formally, only **informally** I ask how was it? What was good?

Yes, informally I discuss with the employee what was **learned**.

2. If you do not currently assess whether employees are using newly acquired knowledge and skills after they attend training, what would **enable/encourage you to do so?**

(2 responses)

More time.

Seeing the benefit in it.