Measuring Perceived Quality of Training in the Hospitality Industry

Candice E. Clemenz

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Approved:

Pamela A. Weaver
James E. Littlefield
Ken W. McCleary
Suzanne K. Murrmann
John A. Williams

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(ABSTRACT)

To explore the viability of a new training evaluation criteria, theories from the areas of service, adult education, and training, were combined to form a model of Perceived Quality of Training and Transfer. Operating from the paradigm that training is a service, a rigorous scale development process was initiated to discover the dimensions of perceived quality of training, a new construct within the realm of training evaluation based upon trainees' impressions of training. Thirty-six supporting items, representing nine dimensions of perceived quality of training, formed the scale developed in the first phase of this study.

To test and further refine the perceived quality of training scale, 164 trainees from six different instructor-led training classes in the hospitality industry completed pre-training and post-training surveys that evaluated scale items as expectations as well as perceptions of training. Comparing measurement techniques, findings indicated that a perception only measure of training quality was more highly correlated with trainees' overall quality of training ratings than was a gap measure (perceptions minus expectations).

Exploratory factor analysis conducted in phase 2 of the study revealed that the six dimensions of perceived quality of training, as determined by the perception measurement, are interactivity, climate, courtesy, relevance, tangibles, and credibility. These dimensions are similar to the dimensions of service quality, thereby giving credence to the idea of tapping into eclectic literature bases to address issues of training evaluation. Lastly, test results indicated that the perception measurement of the perceived training quality scale was significantly and positively correlated with trainees' intentions to use training when they returned to their jobs.

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INTRODUCTION

Topic of Interest

Training, "the acquisition of skills, concepts, or attitudes that result in improved performance in an on-the-job environment," (Goldstein, 1980, p. 230) comprises a massive enterprise and a powerful instrument for change. American companies alone spend an estimated $200 billion annually on employee training (Wiley, 1993), generally believing that it (1) improves employee attitude, job satisfaction, productivity, and work quality, (2) improves overall perception of an organization by the customer, and (3) increases profit levels by reducing labor turnover and associated costs (Conrade, Woods, and Ninemeier, 1994).

Although the origins of training can be traced back six thousand years to the apprenticeship system of early civilizations (Steinmetz, 1976), documentation of substantive research on the state of the art and/or trends in training begins in the mid to late 1960s. Campbell (1971) was the first to do an overview of training and development articles, and he characterized the literature as non-empirical, non-theoretical, and poorly written. Goldstein's follow-up in 1980 was more hopeful as he pointed out "a small but increasingly significant" amount of literature dealing with important training issues. Goldstein directed future researchers toward the areas of (1) training need assessments, (2) training evaluation models, (3) training within organizational frameworks, and (4) useful training techniques.

Focusing on training evaluation, Kirkpatrick's (1959) widely accepted model features four levels of training effectiveness measures: reactions, learning, behavior and results. Reactions refer to trainees "liking of" a training program; learning is defined as "principles, facts, and techniques understood and absorbed"; behavior is explained as "using learned

principles and techniques on the job"; results indicate "ends, goals" (Alliger & Janak, 1989). In the twenty years since Goldstein's review, many researchers have studied Kirkpatrick's model to understand individual levels, combinations of two or more consecutive and/or non-consecutive levels, the interaction between levels, and the proposed hierarchical structure (Alliger, Tannenbaum, Bennett, Traver, & Shotland, 1997). This dissertation focuses on the first level (reactions) of training effectiveness while establishing a framework to link level one with level three (behavior). It further tests Kirkpatrick's contention that favorable outcomes at upper levels of training effectiveness measures are dependent upon favorable outcomes at lower levels measures (Noe & Schmitt, 1986).

Statement of Problem

The behavior level of the training evaluation model, commonly referred to in the literature as transfer, represents the heart of the training process. Defined as "the effective and continuing application, by trainees to their jobs, of the knowledge and skills gained in training (both on and off the job)," (Broad & Newstrom, 1991, p.6) transfer must occur in order for training to fulfill its potential as a positive change agent within organizations.

The problem lies in the statistic that not more than 10% of training expenditures result in transfer to the work environment (Georgensen, 1982). Although companies are understandably dubious about the effectiveness of training, they find it difficult to prove (or disprove) suspicions that they may be squandering their resources. Lack of research and evaluation efforts cause less than 15% of companies to even attempt to measure training transfer (Haywood 1992, Garavaglia 1993, Faerman & Ban 1993). Transfer assessment therefore represents an opportunity for applied research since human resource practitioners will need more than ever to demonstrate that their investments in training are producing improved performance and financial results. Skills

and knowledge taught in a training venue must produce observable behavior changes on the job (Garavaglia, 1993).

Concurrent with a call for improvements in the evaluation criteria and methods concerning training transfer, Goldstein (1980) suggested that research was needed to identify variables capable of predicting positive transfer. Baldwin and Ford's review of training transfer literature in 1988 echoed the same concern when they identified gaps within the relevant body of knowledge concerning transfer inputs (trainee characteristics, training design, and work environment) and their linkages.

Baldwin and Ford (1988) addressed the need for researchers to look more broadly at the dynamic nature of transfer. Their suggestion to "take a more eclectic orientation to transfer by expanding to new literature bases" (p. 98) provided encouragement for researchers interested in investigating training transfer from innovative perspectives.

Objective of the Study

The disciplines of psychology (e.g. behavior modification) and/or business (e.g. organizational training) typically have generated most of the research on the topics of training and training transfer. This study looks at employees as customers of training (Alliger et al., 1997) as it reaches beyond the traditional sources to adapt theories from the areas of services and adult learning to training. Fulfillment of the primary research objective, the development and testing of an instrument that measures perceived quality of training, will enable an investigation into the relationship between measured perceived quality of training and a measurement of trainees' behavioral intentions to transfer training when back on the job.

The contribution of this study to the existing body of knowledge revolves around the measurement of a previously unexplored reaction factor, "quality of training." Whether or not

explicitly stated, training quality in the context of this research refers to perceived training quality from the viewpoint of trainees. Reaction measures refer to trainees' attitudes toward liking of a training program (Kirkpatrick, 1959), and they are generally classified in literature as either affective or utility. Some authors also include difficulty, but no one has attempted to find a more comprehensive measurement of the training process (Alliger et al. 1997, Warr & Bunce 1995). The value of identifying/measuring a reaction factor associated with training effectiveness is that it can direct practitioners to conduct training in a way that leads to maximum transfer once trainees return to their jobs.

Research Questions

The following research questions will be addressed:

1. What are the dimensions or primary factors that determine a trainee's perception of training quality?

2. How does a perception minus expectation (P-E) measurement of perceived training quality compare with a perception only (P) measurement?

3. Is there a relationship between perceived training quality and trainees' self-reported intentions to transfer training?

Theoretical Foundations

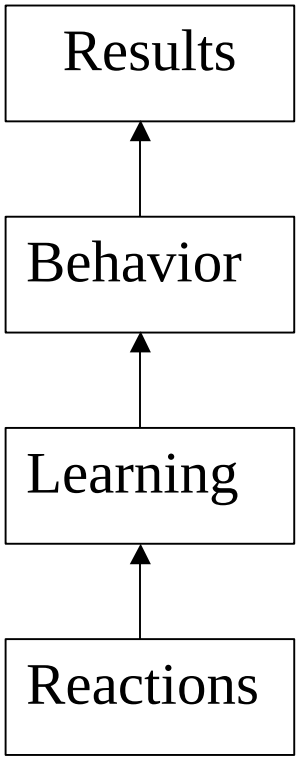
The researcher's view of training as a service forms an important internal boundary for this study. Service refers to an act, deed, or experience, but the three defining characteristics of intangibility, heterogeneity, and inseparability are most frequently used to describe a service (Albrecht, 1985). The intangibility aspect of services focuses on performances rather than objects, and their inability to be counted, measured, inventoried, tested, or verified in advance to

insure quality. Heterogeneity refers to the fact that performance often varies from producer to producer, from customer to customer, and from day to day. The inseparability of the production and consumption of services causes quality of the service delivery to be determined during the customer/service provider interface (Albrecht, 1985).

Operating from a paradigm of training as a service provided for employees, the theoretical foundation of this research rests upon the works of Kirkpatrick (1959, see Figure 1), Baldwin and Ford (1988, see Figure 2), and Parasuraman, Zeithaml, and Berry (1985, see Figure 3). Kirkpatrick's landmark research developed a taxonomy of training evaluation criteria; Baldwin and Ford developed a model of training transfer that includes training inputs, training outputs, and conditions of transfer; Parasuraman et al. identified dimensions of service quality and developed an instrument to measure service quality. Chapter II provides additional information regarding the relevance and relationship of the cited models to the present study.

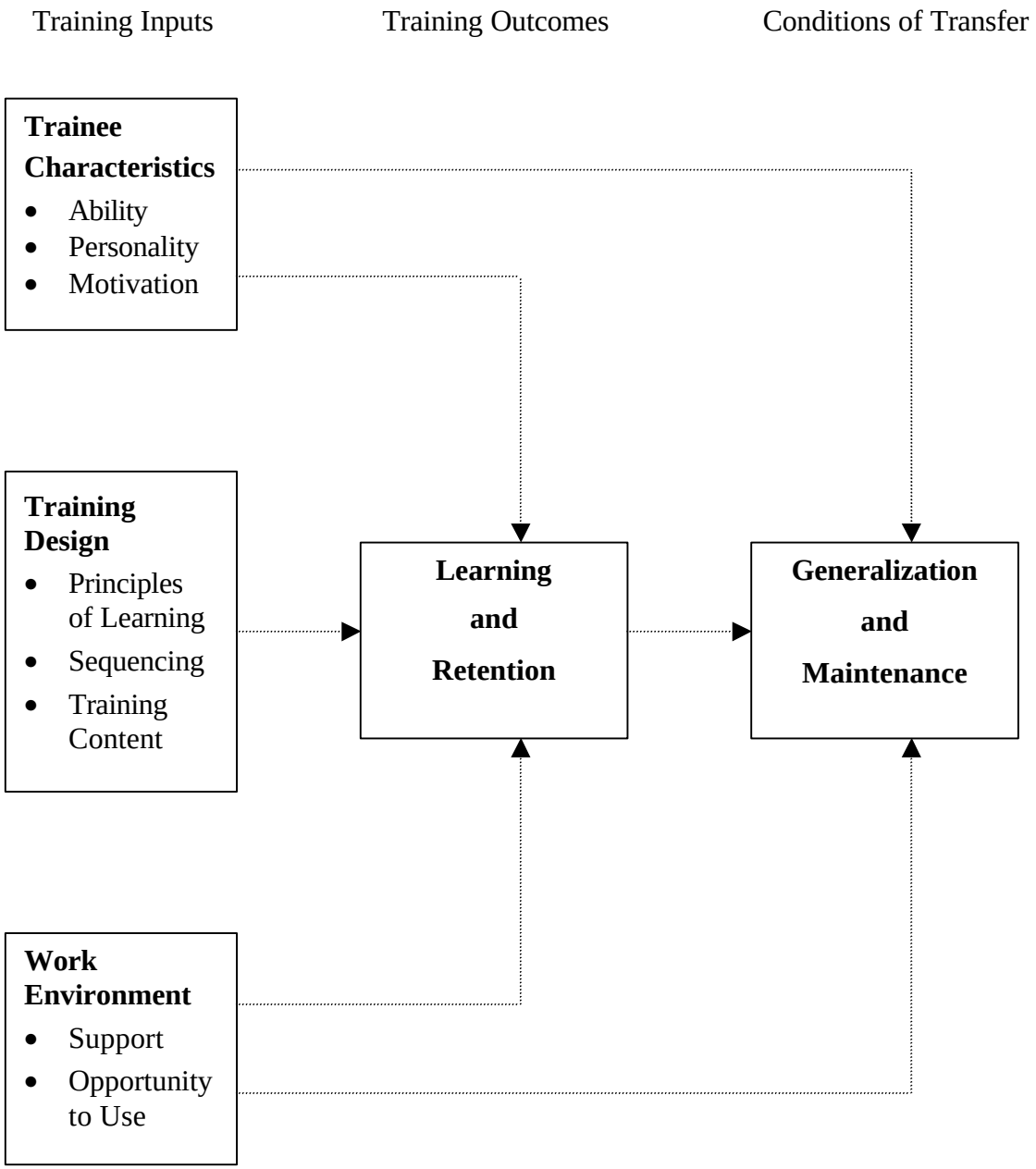
Theoretical and Research Boundaries

Boundaries limit values placed on constructs within a theoretical model (Bacharach, 1989). In an attempt to increase generalizeability, the external boundaries of the proposed theory are limited to a training situation within an organization. The boundaries for this particular research, however, are subject to the explicit restrictions of space, time, and money. Consequently, more confining boundaries exist: (1) the hospitality industry, (2) an instructor-led training class, and (3) supervisory or management-level training participants. Although the current exploratory research is set within the above parameters, it is hoped that future studies will suggest that the theory is more far-reaching.



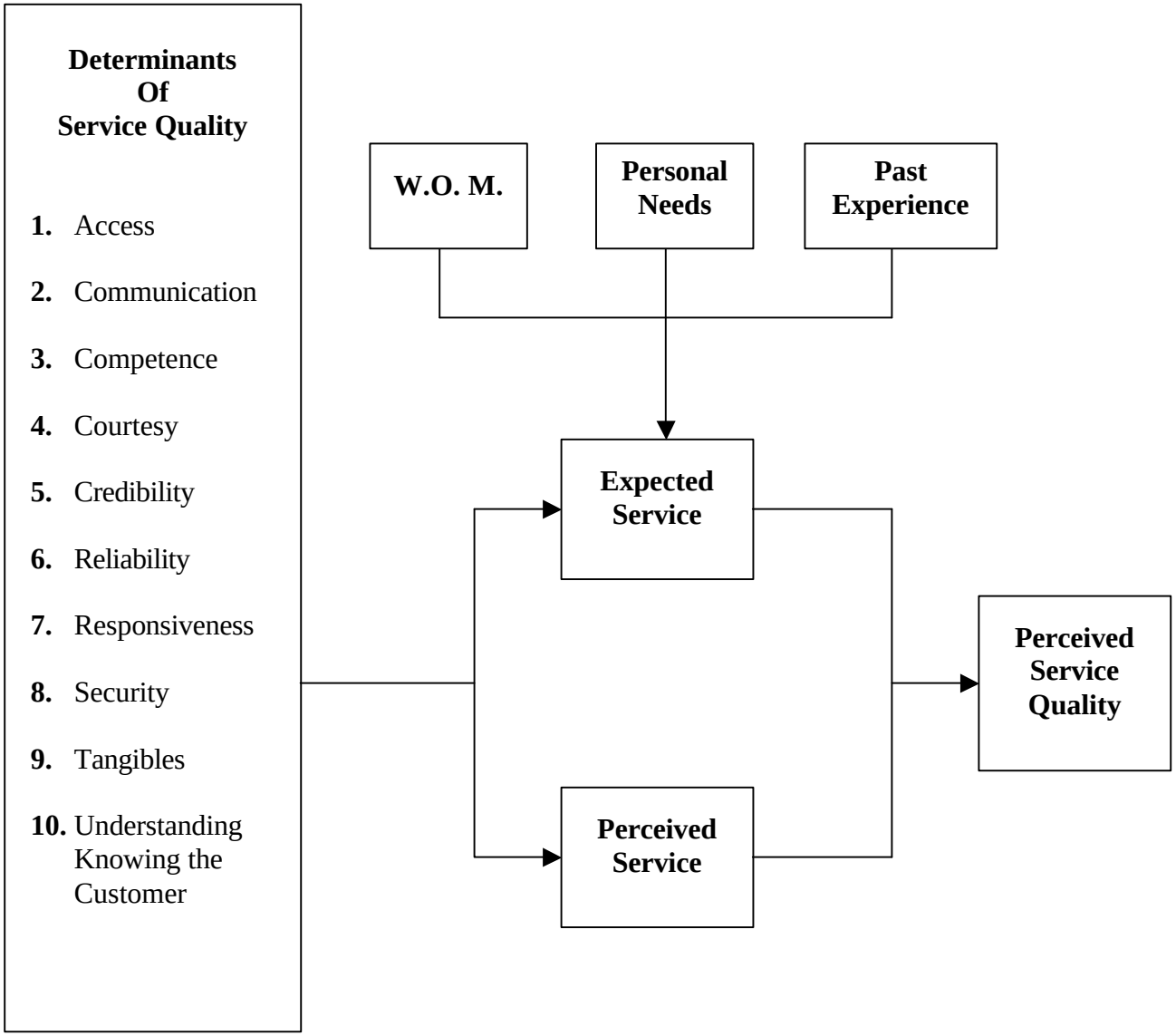
Source: Kirkpatrick (1959)

Figure 1. Model of training evaluation criteria



Source: Baldwin & Ford (1988)

Figure 2. Model of training transfer process



Source: Parasuraman, Zeithaml, & Berry (1985)

Figure 3. Determinants of perceived service quality

Definition of Key Terms

Training: the acquisition of skills, concepts, or attitudes that result in improved performance in an on-the-job environment (Goldstein, 1980).

Transfer of training: the degree to which trainees apply knowledge, skills, and attitudes gained in a training context to their jobs (Baldwin & Ford, 1988).

Perceived quality of training: a trainee's attitude, relating to the excellence or superiority of training (Zeithaml, 1987).

Trainee expectations: the wants or desires of trainees relating to the training process (Parasuraman, Zeithaml, & Berry, 1988).

Trainee perceptions: the trainee's assessment of the actual performance of training (Parasuraman, Zeithaml, and Berry, 1994).

Organization of the Study

This dissertation, organized into five chapters, takes the reader through the application of the scientific method. Chapter I begins with a broad overview of the topic of interest and progressively narrows to the point of proposing questions to be answered in the course of the research. This chapter also presents a justification for the study, citing the problem to be addressed, the value of addressing it, and the potential contribution to the existing body of knowledge.

Chapter II, a comprehensive review of literature that pertains to and supports the topic under investigation, reviews relevant research from the areas of psychology, business/ organizational training, services, and adult learning. The theoretical underpinnings of this study are illustrated through discussion of the paradigms, theories, and models adapted to formulate the model under investigation.

Chapter III begins with an introduction of the conceptual model and related propositions and hypotheses. The chapter also provides a roadmap to the study, focusing largely on the process of instrument development that will include both qualitative and quantitative components; research design, methodology and statistical analysis is also reviewed. If Chapter I answers "what" and "why," then Chapter III addresses "how."

Data collection, coding, and statistical analysis takes place per the directives of Chapter III. The results of these processes are presented and discussed in Chapter IV, focusing on the results of the statistical testing of the model and propositions.

Chapter V provides a conclusion by summarizing findings, noting implications and limitations of the study, and making recommendations for future research.

Summary

The first chapter of this dissertation provided an introduction to the topic of training and the problem of training transfer. By integrating service theories and methodology with the existing training literature, this exploratory research (1) defines the dimensions of perceived quality of training, (2) develops a scale to measure perceived quality of training, and (3) incorporates the scale into an instrument that is tested with a hospitality training population. Classified as a first level or reaction measure in Kirkpatrick's model of training evaluation, perceived quality of training has the potential to help human resources practitioners evaluate and thereby improve their training programs.

Interfacing with Baldwin and Ford's model of training transfer, perceived quality of training fits along with other reaction measures as a trainee characteristic input to transfer. This study's investigation of the relationship between employee's perceptions of quality of training and their behavioral intentions to transfer training holds potential for new insights into ways to

increase the transfer of knowledge and skills from the training session to the work environment. Considering the importance of training and the amount of money invested in the activity by companies, any increase in the effectiveness of training will have far-reaching beneficial effects.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter reviews literature pertaining to the constructs of the theoretical model proposed in this study. By addressing the need for a more eclectic approach to the study of training, this research views training evaluation through a service lens that is focused on quality. Publications from the areas of training, training transfer, services, service quality, and adult education will be assimilated to form the rationale for the model, propositions, and methodology that will be discussed in Chapter III.

Training

Historical Development

Training was born early in the journey of civilization. As tools, weapons, clothing, shelter, and language developed in The Stone Age, so did man's need to pass on knowledge and skills. Through signs and words, man was able to administer training. "When the message was received by another successfully, we say that learning took place and knowledge or skill was transferred" (Steinmetz, 1976, 1-3). The following chronology of important events traces the evolution of training:

4000 B.C. The architecture and masonry of unearthed palaces in Mesopotamia provided evidence of trained artisans.

2100 B.C. The Code of Hammurabi included rules for governing apprenticeship: the system whereby an experienced person passed along knowledge and skills to a novice.

1200	Guilds, or associations of masters, apprentices, and journeymen who shared a common interest or pursuit flourished.
1745	Craft training began in Bethlehem, Pennsylvania.
1809	Vocational education began in New York.
1825	Manual schools, a form of vocational education, provided discipline and training to turn “bad boys” into productive citizens.
1862	Abraham Lincoln signed the Land Grant Act which gave average men’s children access to higher education.
1872	The Industrial Era created such a high demand for goods that companies (Westinghouse, General Electric) began establishing their own factory schools to teach needed skills to their employees.
1892	The YMCA began offering trade courses.
1906	National Society for the Promotion of Industrial Education (which later merged with the Vocational Association of the Midwest in 1925 to form the American Vocational Association) was formed.
1910	Cooperative education was introduced at the University of Cincinnati, College of Engineering.
1913	The National Association of Corporation Schools was formed; the organization eventually changed its name in 1923 to the American Management Association.
1917	The Smith-Hughes Act appropriated approximately $7 million annually for vocational education; the first of several acts to support vocational training efforts.

1917	An education and training section was set-up as part of The Emergency Fleet Corporation of the United States in a massive effort to meet the needs created by World War I.
1920s	The Federal Board of Vocational Education created training programs for specific trades; correspondence schools were initiated.
1930s	Training consciousness flourished during the Depression as people attended afternoon and evening classes in handicrafts, to occupy their time and provide some income.
1937	National Apprenticeship Act authorized Secretary of Labor to establish labor standards for apprentices.
1940s	World War II initiated the “defense era” and the position of training director became a necessity for companies that had to train supervisors to be trainers.
1940s	The Engineering, Science, and Management War Training program (ESMWT) was facilitated by colleges and universities to upgrade workers in college-level-type subjects. This was the forerunner of junior/community colleges, and centers for continuing education and management training.
1940	The first training director society was formed, the National Society of Sales Training Executives.
1945	The American Society of Training Directors (ASTD) was formed and publication of the Training and Development Journal ensued.
1950s	Self-directed programmed instruction became popular.

1970s	Systems approach to training stressed needs assessment.
1971	Campbell did the first comprehensive review of training research/literature.
1990s	Computer-aided training become possible with the proliferation of personal computers.

Theories and Models Relating to Training

"Historically, the theoretical foundation of training in organizations has been the so-called "learning principles" (Campbell, 1971, page 566). The four basic principles are (1) identical elements, (2) teaching of general principles, (3) stimulus variability, and (4) various conditions of practice (Baldwin & Ford, 1988).

Identical elements refer to the benefit of having identical stimulus and response elements in both the training and transfer settings. General principles assert that transfer is maximized when trainees are taught the general rules and theoretical principles that underlie the training content. Stimulus variability encourages the use of a variety of relevant training stimuli in training. Conditions of practice includes a variety of special design issues: massed versus distributive learning (dividing training into segments), whole versus part training (practice with varying amounts of material), feedback (knowledge of results, generally regarding performance), and overlearning (practice far beyond mastery of a task) (Baldwin & Ford, 1988).

Gagne (1965) asserted that more important than the learning principles are the assumptions that performance can be divided into a set of distinct component tasks and that proficiency on the task components mediates total performance. Therefore, the basic principles of training design consist of: (1) identifying the component tasks that comprise a desired performance, (2) incorporating these tasks into a training program, and (3) arranging the tasks in optimal sequence for transfer to performance. This approach addresses the two critical training

questions of what is to be learned and what should be the content of the training program. (Campbell, 1971).

Attitude Theory

If training content involves attitudes, beliefs, or opinions, and/or the evaluation of training is based upon attitudinal criteria, then theories of attitude and attitude change are relevant. Based in social psychology, "a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner" (Rokeach, 1972, p. 112) defines an attitude. Attitudes are widely accepted as determinants of overt actions; therefore, changes in attitudes effect subsequent behavior (Bandura, 1969). Empirical investigations of the correlation between attitudes and behavior change, however, have produced mixed results (Festinger, 1964). Frequently, methodological issues are cited as possible explanations.

Several of the more prominent attitude/attitude change theories include Reinforcement Theory, Congruity Theory, and Belief Congruence Theory (Insko, 1967). Hovland, Janis, and Kelly's Reinforcement Theory says "attitude change results from learning produced through reinforcement" (Insko, 1967, p. 12). Congruity Theory, as posed by Osgood and Tannenbaum, suggests that attitudes tend toward maximum simplicity. For example, extreme polarized responses are easier than more discriminating judgements; therefore, respondents select all bad or all good responses because they are easier to make. According to congruity theory, "when two attitude objects of differing evaluation are linked with an assertion, there is a tendency for the evaluations of each object to shift toward a point of equilibrium or congruity" (Insko, 1967, p. 113).

Based upon his Belief Congruence Theory of attitude change, Rokeach (1972) proposed that behavior is a function of two interacting attitudes: attitude-toward-object and attitude-

toward-situation. Behavioral outcomes therefore result from a comparison of the relative importance of the two attitudes. The two attitudes affect behavior in direct proportion to their perceived importance to each other.

Another approach to behavior change/modification combines Skinnerian and Pavlovian principles of conditioning. This theory "seeks to change individual responses by changing the individual's environment, primarily by altering reinforcement contingencies or stimulus pairings" (Campbell, 1971). The two contingencies of modeling and positive reinforcement apply to training situations in organizations. For example, instead of sending managers to a human relations seminar on subordinant interaction, Bandura (1969) suggested that they should be provided with correct behavior models and desired behavior should be reinforced with valued rewards.

In response to the on-going controversy regarding the relationship between attitudes and behavior, Kraus (1995) conducted a meta-analysis of empirical literature to show that attitudes significantly and substantially predict future behavior. Methodological factors associated with high attitude-behavior correlations were self-report measures of behavior, use of non-students as participants, and corresponding levels of specificity in attitude and behavior measures (Kraus, 1995).

Motivation Theory

Several motivational theories have been associated with the area of training, but the expectancy-theory model dominates theories of work motivation. Originally formulated by Tolman and Lewis in the 1930s, the expectancy model has successfully been applied to understanding behavior within an organizational context. The theory states that "the motivational force to engage in a behavior is a multiplicative function of (1) the expectancies the person holds about the outcomes that are likely to result from that behavior and (2) the valence

of these outcomes" (Porter, Lawler, and Hackman, 1975, p. 56). That is, employees are likely to utilize training when they return to the job to the degree that they believe the behavior will lead to outcomes (e.g. raises, recognition, and/or improved work conditions) that are important to them. The role of motivation will be further discussed within the contexts of training evaluation and training transfer.

General Systems Theory (GST)

GST was proposed in the mid-twentieth century as a way of organizing and integrating massive amounts of information generated by research specializations. Basically, a system was comprised of inputs and outputs, both being filtered through a boundary (Berrien, 1968). This philosophy permeated the 1970s, and its adaptation to organizations suggested that a training system should (1) specify instructional objectives, (2) provide a controlled learning experience to achieve those objectives, and (3) provide criteria for performance evaluation (Goldstein, 1980).

In order to define instructional objectives, the first step in the training system is a thorough needs assessment that includes analyses of the organization, the task, and the person (Goldstein & Gilliam, 1990). Via the needs analysis, it is possible to "determine what tasks are performed, what behaviors are essential to the performance of those tasks, what type of learning is necessary to acquire those behaviors, and what type of instructional content is most likely to accomplish that type of learning" (Goldstein, 1980, p. 235). Following design and implementation of the instruction, an evaluation of its effectiveness must be conducted.

Evaluation of Training

"The reason for evaluating training is to determine the effectiveness of a training program" (Kirkpatrick, 1998, p. 3). A popular topic of discussion for academics and practitioners, most agree on the importance of training evaluation as well as its under-utilization in practice. In a 1996 study conducted by the American Society for Training and Development,

the need to measure performance improvement (associated with training) was identified as a key issue for the new millenium. Evaluation enables top management to understand the results of their huge financial investments in training while assisting instructors and course designers to know how their programs are impacting the organization. Trainees and supervisors also benefit since evaluation allows them to know that the time spent in training is productive and cost-effective (Parry, 1997).

Kirkpatrick's Taxonomy of Training Evaluation and Related Research

Kirkpatrick's model of four measures or levels of training effectiveness is the most prevalent framework for categorizing training criteria (Alliger et al., 1997). Kirkpatrick (1959) theorized that the sequence of four levels (reactions, learning, behavior, and results) is hierarchical, with each level impacting the next level. Moving from the lower to upper levels, the process becomes more difficult and time-consuming but the information becomes more valuable (Kirkpatrick, 1998).

The appeal of Kirkpatrick's taxonomy lies primarily in its ability to articulate the training evaluation process in a simple yet systematic fashion. Regarding implementation, a "state of the art" survey of 154 companies revealed that 77% of companies measured employees' reactions to training; 50% measured learning; 54% measured behavior; 45% of the firms attempted to measure results. Responses to a second questionnaire and interviews, however, revealed very few quantitative, systematic, and/or objective measurements (Catalanello & Kirkpatrick, 1968).

Kirkpatrick refers to the reaction level as a measure of customer satisfaction. His view of trainees as customers, even though they may be non-paying, recognizes that positive reactions are necessary for the continuance of a training program. "Positive reaction may not ensure learning, but negative reaction almost certainly reduces the possibility of its occurring" (Kirkpatrick, 1998, p. 20).

The second level, learning, is defined as “the extent to which participants change attitudes, improve knowledge, and/or increase skill as a result of attending a training program” (Kirkpatrick, 1998, p. 20). Since programs vary, learning goals need to be clearly defined. For example, diversity training might target changing attitudes; a technical program may deal with skills; leadership training could address attitudes, skills, and knowledge.

Frequently termed transfer of training, the third level refers to a change in behavior that occurs as a result of a participant attending a training session. Some human resource practitioners neglect to measure the first two levels of training effectiveness and skip immediately to the assessment of behavior change. Kirkpatrick cautions against this approach since it may lead to inaccurate assumptions (Kirkpatrick, 1998). Specifically, a training program eliminated due to low transfer evaluations may have actually been successful at the reaction and learning levels, but unsuccessful at the third/behavioral level due to a failure to meet level three conditions. Conditions or inputs to transfer evolve around trainee characteristics (motivation to change); course characteristics (effective instructional design); environmental characteristics (conducive workplace climate).

The highest level of evaluation focuses on the final results attributable to the participants attending the training program (Kirkpatrick, 1979). Results may be measured in reduction in defects, increased sales, improved quality, reduction in accidents, etc. Since the reason for most training programs is to achieve results, the final objectives of a training program should be stated and evaluated in those terms.

In 1989, Alliger and Janek did a thirty year review of 12 studies that investigated one or more levels of Kirkpatrick’s model. Their article questioned three key assumptions of the model: (1) Each succeeding level is more informative than the previous level, (2) One level

causes the next highest level, and (3) Each level is correlated positively with the next highest level. A synopsis of their findings includes disappointing correlations between levels, and reasons to logically question the assumptions. Their strongest statement suggested that there might be justification to consider reactions to training in a category independent from constructs such as learning and behavior.

Alliger et al. did another review of Kirkpatrick's model in 1997 via a meta-analysis of the relations among training criteria. Using twice as many studies and four times as many correlations as were available in 1989, "the study focused the most attention on reactions since they are by far the most common criterion of training effectivenss" (Alliger et al., 1997, p. 354). Summarizing the results of the meta-analysis, Alliger et al. (1997) differentiated between utility reactions, affective reactions, and a combination of the two, concluding that utility-type reactions and a combination of utility and affective measures were more strongly related to transfer than were affective-type reaction measures. And surprisingly, utility-type reaction measures were more strongly correlated to transfer than were measures of immediate or retained learning.

Mathieu, Tannenbaum, and Salas (1992) suggested that Alliger and Janek (1989) generally found a low correlation between reaction criteria and learning measures since they only examined studies of linear relationships. Mathieu et al. (1992) conducted a study that identified reactions as moderators of the relationship between training motivation and learning. They found that reactions play a multifaceted role in linking individual and situational characteristics to other training effectiveness measures. "The implications of this finding are that reactions are important for training effectiveness, but not in and of themselves" (Mathieu et al., 1992, p. 843). Training is effective if participants are motivated and they react positively to the program.

Warr and Bunce (1995) investigated three types of reaction measures (enjoyment, usefulness, and difficulty) as associated with learning scores of trainees. Their research indicated no association between enjoyment or usefulness and learning scores, but did find an inverse relationship between perceived difficulty and learning scores. They found a strong association between learning scores and subsequent changes in rated job performance. Also, they found that learning scores were predicted independently by general training attitude, the use of analytic learning strategy, and age (Warr & Bunce, 1995).

Faerman and Ban (1993) attempted to explain studies that have found no relationship between level one (reaction) and level three (behavior) measures of training effectiveness, by suggesting that the results were affected by statistical artifacts associated with trainee gain scores. Using an alternate method of analysis, they found that "there is a relationship between some aspects of training participants' reactions to supervisory training programs and their behavioral change following course completion" (Faerman & Ban, 1993, p. 310). Their analyses suggested that good instruction and overall positive reactions to the course may enhance trainees' attempts to apply the training when back on the job.

The value of reaction measures is sometimes questioned on the basis that they are the self-evaluations of training participants. Reeves and Jensen (1972) conducted a study concerned with the verification of participant evaluation. They found that the evaluation of adult education sessions did not appreciably differ between groups of participants or between coordinators/ instructors and participants. The study also indicated the temporal nature of trainee evaluations since general opinion of training lessened over time, and the diversity of trainees' opinions became greater as the time increased between the program and its evaluation.

Kraiger, Ford, and Salas (1993) identified the following shortcomings in Kirkpatrick's model: "a lack of clarity regarding what specific changes may be expected as a function of trainee learning and difficulty in identifying what assessment techniques are appropriate given those expectations" (Kraiger, Ford, & Salas, 1993, p. 311). Accordingly, they suggested a theory-based classification scheme based upon learning outcomes that are cognitive (verbal knowledge, knowledge organization, cognitive strategies), skill-based (compilation and automaticity), and/or affective (attitudinal, motivational).

Training Methods

Following a needs assessment to determine the objectives of training and the learning necessary to achieve the goals, an instructional designer selects media and techniques most appropriate for the associated behaviors. Examples include on-the-job training, job rotation, lectures, role playing, simulations, programmed instruction, computer-assisted instruction, etc. (Campbell 1971). In a study of nine different techniques, Carroll, Paine, and Ivancevich (1972) found that trainers' opinions about the usefulness of a technique were not consistent with evidence of utility based upon empirical indicators. For example, the trainers over-estimated the value of programmed instruction and underestimated the lecture method (Goldstein, 1980). Generally speaking, research is lacking in the area of training techniques, especially as they relate to communicating specific knowledge, skills, or attitudes.

Lecture

Two general procedures which frequently incorporate other training techniques are on-the-job training and the lecture method. The lecture method is criticized due to its tendency for one-way communication, but comparisons to programmed or televised instruction have failed to show that the newer techniques lead to greater trainee achievement. Some evidence shows,

however, that learning occurs more quickly with programmed or televised instruction. Lectures are the most widely used technique in educational environments (Goldstein, 1993).

On-the-job Training

On the other hand, on-the-job training is the most generally employed procedure used by industry. Almost all trainees are exposed to on-the-job training at some point. Realism is an advantage since training is conducted in the actual work environment, but the method's informality is considered a drawback. "Most on-the-job training programs are not planned and thus do not work well" (Goldstein, 1993, p. 229). Too often, practicality dictates the use of on-the-job training. It is relatively low cost and as easy to implement as saying "follow Susan around." Even if the instructor is capable, the training activity is subordinate to the task at hand.

Audiovisual Techniques

Television and films capture the dynamic nature of training while extending the range of stimuli that are traditionally present in a training environment. Criticized as being non-responsive to the needs of students at diverse locations, the advantage of audiovisual training is that travel costs are cut since employees do not have to travel long distances to attend centralized training sessions. Also, with the increasing size of organizations, the live-lecture method frequently cannot accommodate all of the people that need to be trained (Goldstein, 1993).

Programmed Instruction

Programmed instruction is not defined by the physical display of material (e.g. book, computer, etc.), but rather by the quality of the program. Initiated in the 1950s, programmed instruction features self-instructional materials, programmed texts, and/or teaching machines that systematically present information while using principles of reinforcement (Goldstein, 1993).

Computer-aided Instruction

Innovations in hardware and software technology have led to the development of computer-aided training, the new generation of programmed instruction. Interactive computer-based training features the multimedia effects of text, audio, video, graphics, photography, and animation, while enabling the trainee to control the speed and direction of learning. Computer-aided training includes the techniques of drill and practice, tutorials, and simulations (Goldstein, 1993).

Special Training Issues

Training literature is voluminous, diverse, and comprised of many sub-divisions. The following section briefly addresses training issues that have societal and/or political implications. Although not directly applicable to this study, they are noteworthy within the context of understanding the training literature (Goldstein, 1993).

1. Training and fair employment practices. The 1991 Civil Rights Bill requires companies whose personnel practices have been shown to adversely affect women and minorities, to prove that their policies are job-related and driven by business necessity. The selection process for training participants is particularly scrutinized when training is used as a criterion for retention, promotions, raises, etc.

2. Training and the Americans with Disabilities Act (ADA). This act extends fair employment opportunities to people with disabilities, requiring employers to provide individuals with reasonable accommodations to the extent that the business does not incur undue hardship. Implementation of ADA focuses on the provision of reasonable accommodations so disabled employees have the same access to training opportunities as non-disabled employees.

3. Training focused on particular populations. Of special concern are so-called hard-core unemployed youths and second career individuals, both of whom have complex social issues that

cannot be addressed by traditional training approaches. So-called hard-core unemployed individuals are often illiterate with diverse, culturally-based values and attitudes; second career seekers frequently face the challenge of age discrimination.

4. International or cross-cultural training issues. Goldstein (1993) notes that one possible reason for the high failure rate of U.S. companies abroad is the fact that most multi-national companies automatically use their domestic training programs overseas. It should not be assumed that training can be imported; a situational needs assessment is a minimum requirement. As the global nature of the economy intensifies, a proliferation of international training research is expected.

Training Transfer

Transfer of training is more than just applying knowledge, skills, and attitudes learned in training when back on-the-job; it requires generalization of learned behavior and maintenance over a period of time (Wexley & Latham, 1981). Baldwin and Ford conducted a review of transfer literature in 1981, producing a widely-accepted model of the transfer process that included training inputs, training outputs, and conditions of transfer. The major training inputs are trainee characteristics, training design, and work environment. The training outputs are defined in terms of original learning that occurs during the training program and retention of material beyond the training program. Conditions of transfer include generalization of the material learned in a training session to the work environment, and maintenance of the learned material over a period of time on the job (Baldwin & Ford, 1988). The study of transfer is a prolific topic for researchers seeking to more fully understand the training process.

Inputs and Outputs of Training

Trainee Characteristics

The area of trainee characteristics includes variables such as demographics, aptitude, personality factors, attitudes/perceptions, and motivation. Empirical studies show mixed results regarding the value of trainee characteristics in terms of predicting transfer, and criticism of research in this area includes lack of a systems approach and lack of adequate criterion measures of transfer (Baldwin & Ford, 1988).

Some investigations of ability and aptitude tests show moderate success as predictors of trainability (Taylor, 1952), but in a review of the literature, Ghiselli (1966) found that overall a person's ability/skill level, as determined by aptitude tests, is a far from impressive indicator of their trainability and/or their propensity to transfer training.

Miles' research (1965) concluded that personality factors have little or no direct effect on transfer. Regarding the personality variable locus of control, Noe and Schmitt (1986) found limited support for its effect on trainee motivation. On the other hand, when Baumgartel, Reynolds, and Pathan (1984) coupled a high need for achievement with an internal locus of control, they found an increased propensity for training transfer.

Warr and Bunce (1995) investigated eleven trainee characteristics in terms of three types of outcomes: post-training reactions (reported enjoyment, usefulness, and difficulty), learning, and changes in job performance ratings. General attitude and specific motivation ratings correlated with reported enjoyment and usefulness; early reports of task anxiety led to higher difficulty ratings of the program. The authors found that trainees who reported more positive attitudes prior to training, who used more analytic forms of learning, and who were younger were likely to obtain better learning scores. Thus, a strong association was found between learning scores and some job performance ratings.

Regarding trainee motivation, studies have explored multiple factors. For example, Noe (1986) proposed a model (subsequently tested by Noe and Schmitt, 1986) in which motivational and environmental factors were combined to describe how trainees' attitudes and attributes influence the effectiveness of training. Their findings indicated trainees' involvement with their jobs and career planning are important antecedents of learning and behavior change.

A study by Mathieu et al. (1992) tested a model of training effectiveness based on a valence-instrumentality-expectancy framework. Regarding antecendents to training motivation, they found that neither career planning nor job involvement exhibited a significant influence; situational constraints were marginally significant and negatively correlated to trainees' motivation. Related research by Tubiana and Ben-Shakhar (1982) indicated that a composite of personal promotional potential, training performance, and popularity during training with peers was associated with motivation to transfer training.

Clark, Dobbins, and Ladd (1993) explored the effects of various contextual factors on training motivation. Consistent with other research (Baumgartel et al. 1984, Campbell 1971, Noe 1986), they found that perceived job utility is an important indicator of training motivation. Decision involvement and decision-maker credibility affected both job and career utility of training; supervisor training transfer climate affected perceived job utility.

Hicks and Klimoski (1987) conducted a study that examined trainees' expectations and perceptions before participation in a training program. They found that trainees who received a realistic training preview and those who had a high degree of choice regarding attendance reported higher satisfaction with the course and greater motivation to learn. Their conclusions supported Ryman and Biersner's (1975) earlier work, but Baldwin and Majuka (1991) indicated that mandatory versus voluntary training participation (coupled with accountability to supervisor

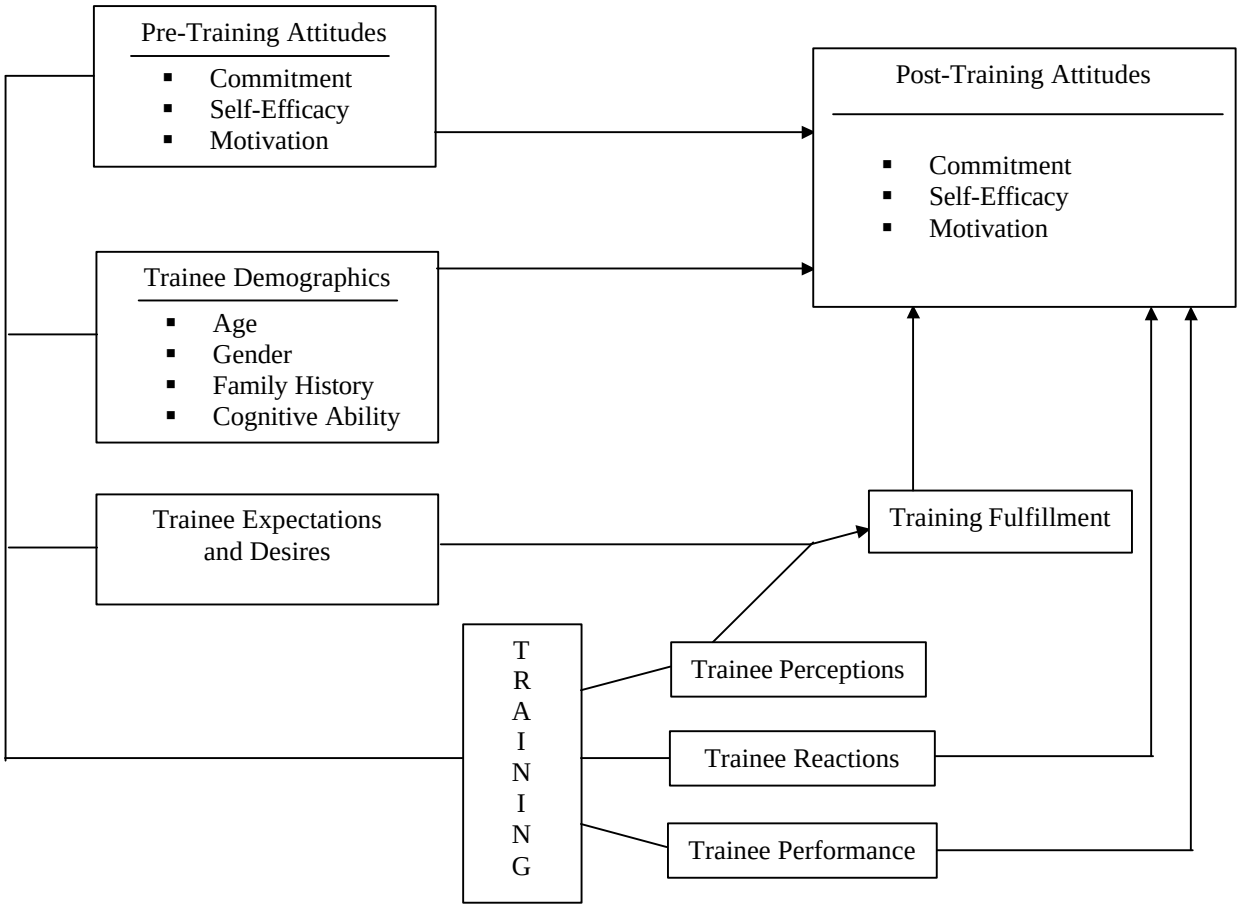
and pre-training information) was more highly correlated with trainees' intentions to transfer learning to the workplace.

Tannenbaum, Mathieu, Salas and Cannon-Bowers (1991) studied employees' attitudes in a way that is particularly relevant to this dissertation (see Figure 4). They found that trainees' expectations and desires before training and their perceptions of what occurred during training, influenced training fulfillment and subsequent post-training commitment, self-efficacy, and motivation. Training fulfillment was defined as "the extent to which training meets or fulfills a trainee's expectations and desires" (Tannenbaum et al., 1991, p.760). The mathematical model weighted desires against the discrepancy between expectations and perceptions. While Tannenbaum et al. research concluded that training fulfillment may be an important influence in the development of posttraining attitudes, another study by Hoiberg & Berry (1978) found that the difference between expectations and perceptions was a predictor of performance when back on-the-job. Both studies utilized samples of Navy recruits.

Training Design

Sometimes referred to as course characteristics, this input to transfer has commanded the least attention from researchers in recent years. Prior to 1970, however, much of the research on transfer was focused on the area of training design and learning principles: identical elements, general principles, stimulus variability, and conditions of practice (Baldwin & Ford, 1988). Although there is empirical support that all four principles influence transfer, the research findings are limited since few are generalizeable beyond motor tasks and memory-skills training. Organizational training typically involves more complex, interrelated tasks.

Thorndike and Woodworth (1901) hypothesized that transfer is maximized when identical stimulus and response elements exist in both the training environment and the transfer



Source: Tannenbaum, Mathieu, Salas, & Canon-Bowers (1991)

Figure 4. Model of training fulfillment, trainee reaction, and training performance on the posttraining attitudes of organizational commitment, physical self-efficacy, academic self-efficacy, and training motivation.
situation.

General principles supports the teaching of rules and theoretical principles that underlie training content; Crannell (1956) showed the value of general principles for problem-solving in a series of three studies. Stimulus variability is believed to lead to positive transfer, according to Shore and Sechrest (1961). They found that using a number of different examples repeated several times each was more effective than using one example repeatedly.

Conditions of practice concerns a number of design issues. Briggs and Naylor (1962) found empirical evidence that distributed practice (e.g. segmentation of training) is more effective than massed practice in terms of retention of material. Similarly, they found that whole versus part training is more effective when training is distributed, the intelligence level of the trainee is high, and the material is low in task complexity but high in task organization. Overlearning refers to continued practice beyond the point when the task has been performed successfully. Research indicates that overlearning leads to greater retention of trained material (Gagne & Foster, 1949). Gagne and Dick (1983) found that sequencing of training material was also an important condition of practice.

Feedback or knowledge of results is critical to achieving learning, and although empirical evidence is scarce, it is hypothesized that specificity and timing of feedback depends upon the trainee and the stage of learning (Blum & Naylor, 1968). Feedback research by Schroth (1995, 1997) indicated that concept attainment is slowed but transfer is maximized with delayed feedback and/or minimal feedback trials prior to actual evaluated performance.

Fotheringhame (1986) assessed transfer per four different training methods, each of which featured varying degrees of encoding-enriching factors: (1) activity-level, (2) variability of practice, (3) effort after meaning, (4) contextual interference, and (5) elaboration. She found that

the two most effective methods, Guided Discovery and Exposition of Principle, shared factors of high effort after meaning, high contextual interference, and high elaboration.

Work Environment

The third training input referenced in Baldwin and Ford's model of transfer concerns factors outside of the training context. Some research was conducted in the 1990s, but more studies are needed to fully understand the variables in the work environment that directly influence the effectiveness of training (Tracey & Cardenas, 1996). Tracey and Tews (1995) identified three major components of the work environment that support or impede training effectiveness: (1) job characteristics that allow time for practice and refinement of learned knowledge or skills, (2) social norms that support and encourage an employee to attend training, learn during training, and transfer learning back to the job, and (3) organizational systems (appraisal and reward) that hold trainees accountable for using their learned skills and knowledge.

Huczynski and Lewis (1980) were among the first researchers to find that pre-course discussions with one's boss, coupled by subsequent boss sponsorship contributed to the transfer of skills. Clark, Dobbins, and Ladd's study in 1993 substantiated that supervisory support affected trainees' perceptions regarding course utility and consequently affected training motivation. Facteau, Dobbins, Russell, Ladd, and Kudisch (1995) found that employees' perceptions of training, as well as their perception of organizational commitment to training, could predict pretraining motivation and consequently training transfer.

Georgenson (1982) suggested that training transfer can be maximized if immediate supervisors of trainees follow five steps:

1. Set the stage prior to training by emphasizing the importance of the training content. This action legitimizes employee attendance and solidifies supervisor support for the course.

2. Also prior to the training, the supervisor and trainee should jointly identify a work project that is directly related to the course content. This again shows support and provides common ground for discussion of training topics.

3. The supervisor should continually provide feedback to employees regarding their use of skills and/or knowledge attained during training.

4. Initial attempts at skill implementation will naturally be awkward, so supervisors should be supportive, encouraging, and not overly critical.

5. Trainers need to work with supervisors to allow for the integration of course procedures into daily activities of the work unit.

"One factor that can affect the transfer of technical skills to the job is the extent to which the trainee is given the opportunity to perform trained tasks on the job" (Ford, Quinones, Sego, & Sorra, 1992, p. 511). These authors found that opportunities provided by the organization and/or sought by the trainee vary according to environmental conditions (e.g. supervisory attitudes, workgroup support) and personal characteristics (e.g. trainee's self-efficacy, cognitive ability).

Mathieu, Tannenbaum, and Salas' work in 1992 found that situational constraints (e.g. inadequate time and/or resources) that limited the extent to which individuals could transfer learning to the work environment had a debilitating cyclical effect. A study conducted in the hospitality industry indicated that employees' perceptions of the availability of equipment necessary to utilize training had a direct impact on pre-training motivation and consequently effectiveness (Tracey & Cardenas, 1996).

Rouiller and Goldstein (1993) referred to climate as the practices and procedures used in an organization that signal people regarding what is important. In a study of a large franchised

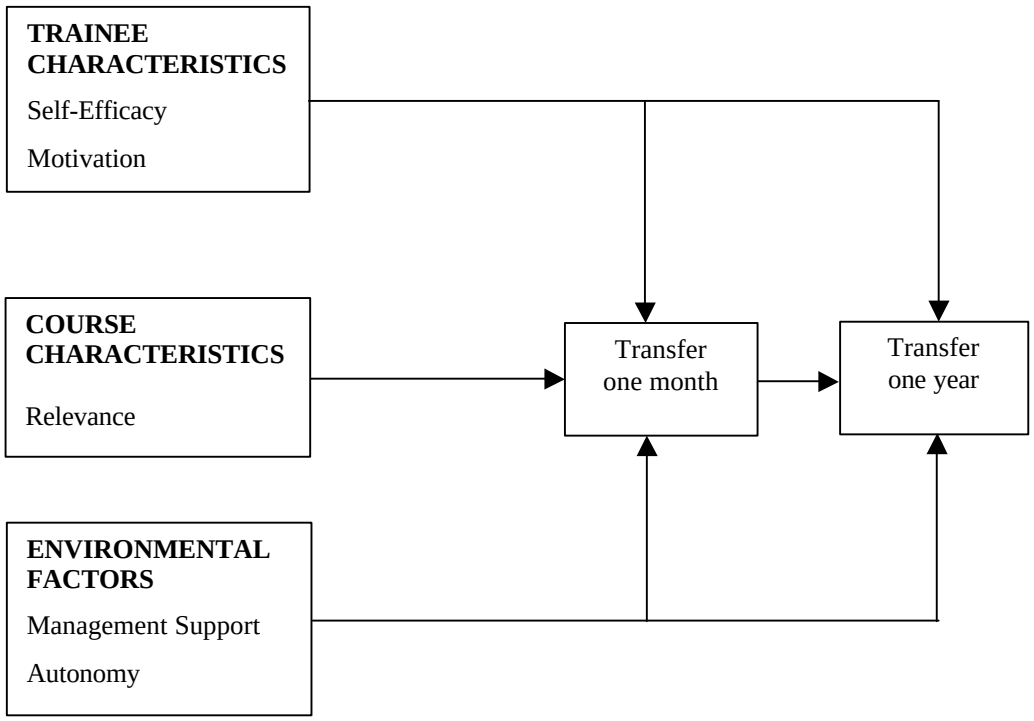
fast-food chain, they found that "the degree of learning in training and positive transfer climate appear to directly affect the degree of transfer behavior to the job situation" (Rouiller & Goldstein, 1993, p. 388). Tracey, Tannenbaum, and Kavanagh also reported that "work environment, defined as training climate and learning culture, is directly related to the transfer of trained behaviors" (1995, p. 250).

Generalization and Maintenance

Training input factors (trainee characteristics, training design, and work environment) and training outputs (learning and retention), as previously discussed have direct and indirect effects upon conditions of transfer (Baldwin & Ford, 1988). And although an important facet of transfer is maintenance of learned material over a period of time on the job, limited research has been conducted in this area.

In a longitudinal study by Hand, Richards, and Slocum (1973), little change in the attitudes or behaviors of mangers was noted ninety days after a human relations training program. When evaluated eighteen months later, however, significant increases in managerial concern for human relations were exhibited by the experimental group whereas the control group showed no changes in their attitudes; the moderating factor was perceived organizational climate.

Axtell, Mailtis, and Yearta (1997) looked at multiple influences on transfer skills at three time intervals: immediately after course completion, one month later, and one year later (see Figure 5). Trainees' perceptions of course relevance/usefulness and their motivation to transfer skills are key variables in determining training transfer one month after training; surprisingly, environmental factors did not play a role. After one year, a self-report by trainees indicated that important transfer factors included: (1) the amount of information they transferred after one month, (2) the degree of autonomy in their jobs, and (3) their original motivation to use what



Source: Axtell, Maitlis, & Yearta (1997)

Figure 5. Transfer of training framework

they learned in training. Although key predictors of transfer after one month were slightly different than after one year, an important finding was that transfer of training at one month is a significant predictor of transfer after one year. This supports other studies (e.g. Baldwin & Ford, 1988) that imply the period immediately after the course is very important in determining future skill use. Incorporation of elements such as overlearning, goal-setting, and relapse prevention into the training context can positively impact maintenance of trained behaviors. In 1967, Locke found that goal setting mediated the effects of reinforcement on learning, and that specific goals were more impactful than "do your best" goals. Not only do post-training interventions such as feedback and goal-setting positively influence trainees' motivation to learn and/or transfer training (Wexley & Nemeroff, 1975), but Wexley and Baldwin (1986) found that assigned and participative goal setting lead to higher levels of maintenance of behavior measured two months after training. Assigned goal setting affected both subjects' learning and behavioral maintenance over the same time period.

In another study, Gist, Bavetta, and Stevens (1990) compared a goal-setting only training design with a self-management design that included goal-setting, to test relative effectiveness in facilitating transfer. In one of the few studies to address the generalization condition of transfer, goal-setting only trainees generalized fewer skills to the assigned task, but they used the skills repeatedly. The self-managed trainees generalized more skills and exhibited higher overall performance on the transfer task.

Relapse prevention informs trainees of the dangers of skills erosion while immunizing them to environmental and situational erosion factors (Tziner, Haccoun, & Kadish, 1991, p. 168). A study that utilized an experimental group and a control group indicated that relapse prevention training leads to higher immediate post-training mastery of training contents, a

propensity to utilize skill transfer strategies, and a likelihood to actually transfer and apply trained skills on-the-job (Tziner & Haccoun, 1991).

Characteristics of Services

The delineation between products and services has been a popular topic during the past two decades. Described by Berry (1980) as acts or performances, Becker went further to say that services are "performances rendered by one party for another" (Becker, 1992, p. 22). Due to their generally nebulous nature, services are most frequently defined in terms of their attributes (Mills & Margulies, 1980). Authors disagree, however, on the number and importance of the various characteristics that describe services.

In an early service article, Lovelock (1983) suggested that two questions are critical to understanding services: (1) Does the nature of the service act involve tangible or intangible actions?, and (2) Are the direct recipients of the service people or things? For example, Lovelock used his matrix to classify education as a service involving intangible actions directed at people's minds.

Barrington and Olsen (1987) identified nine attributes that differentiate services from products and classified them into two categories: (1) dynamics of service delivery, and (2) service product characteristics. Service delivery includes the attributes of short channel of distribution, inseparability of production and consumption, fluctuations in demand, face to face information exchange, and difficulties in ensuring consistency and reliability. Service product characteristics are intangibility, a temporal nature, and heterogeneity.

Mills and Marguiles (1980) identified the two salient characteristics of services as intangibility and closeness of the consumer to the producer. In a review of four studies that surveyed a total of seventy-five articles, Becker (1992) found four defining characteristics of

services and then collapsed her discussion to three: intangibility, heterogeneity, and inseparability/customer participation. This supports the earlier work of Albrecht (1985) who also cited three attributes of service (intangibility, heterogeneity, and inseparability) and claimed that customer participation is inferred by inseparability.

Becker (1992) found that intangibility is the most frequently mentioned of all of the defining characteristics of service. It is the central characteristic from which all other differences between products and services emerge (Bateson, 1979). The intangibility aspect of services focuses on performances rather than objects, and their inability to be counted, measured, inventoried, tested, or verified in advance to insure quality. It is also assumed that "since intangibles cannot be physically seen, touched, heard, smelled, or tasted, they cannot be specifically or differentially defined" (Becker, 1992, p. 17).

Heterogeneity refers to a state of being different, and therefore heterogeneity of services implies that performances vary from producer to producer, from customer to customer, and from day to day (Albrecht, 1985). Heterogeneity, another primary defining attribute of services, is viewed as problematic in terms of facilitating empirical studies.

Inseparability of production and consumption refers to the fact that services are first sold, then produced and consumed. Inseparability naturally brings the service provider and the customer together, and therefore the fourth characteristic, customer participation, is an extension of the inseparability dimension (Becker, 1992). Customer participation suggests that the customer interacts with the producer of the service (employee) in order for the delivery of the service to be complete. The view of customers as partial employees of the service firm is well-supported in literature (Mills & Marguiles, 1980; Bowen 1986). "The primary role which the customer performs as a partial employee is that of a quality control expert" (Becker, 1992, p. 21).

Service Quality

Definition of the Construct

As academicians and practitioners acknowledged the differences between products and services, they also recognized that quality as it pertains to services may be defined differently than product quality. Traditionally, product quality has been based on the prevailing Japanese definition of zero defects, but this measurement is not easily transferable to services (Parasuraman et al., 1985). Service quality is recognized as an abstract construct that is difficult to define and measure (Parasuraman et al., 1985, 1988), while it also represents one of management's most important problems (Cravens, 1988).

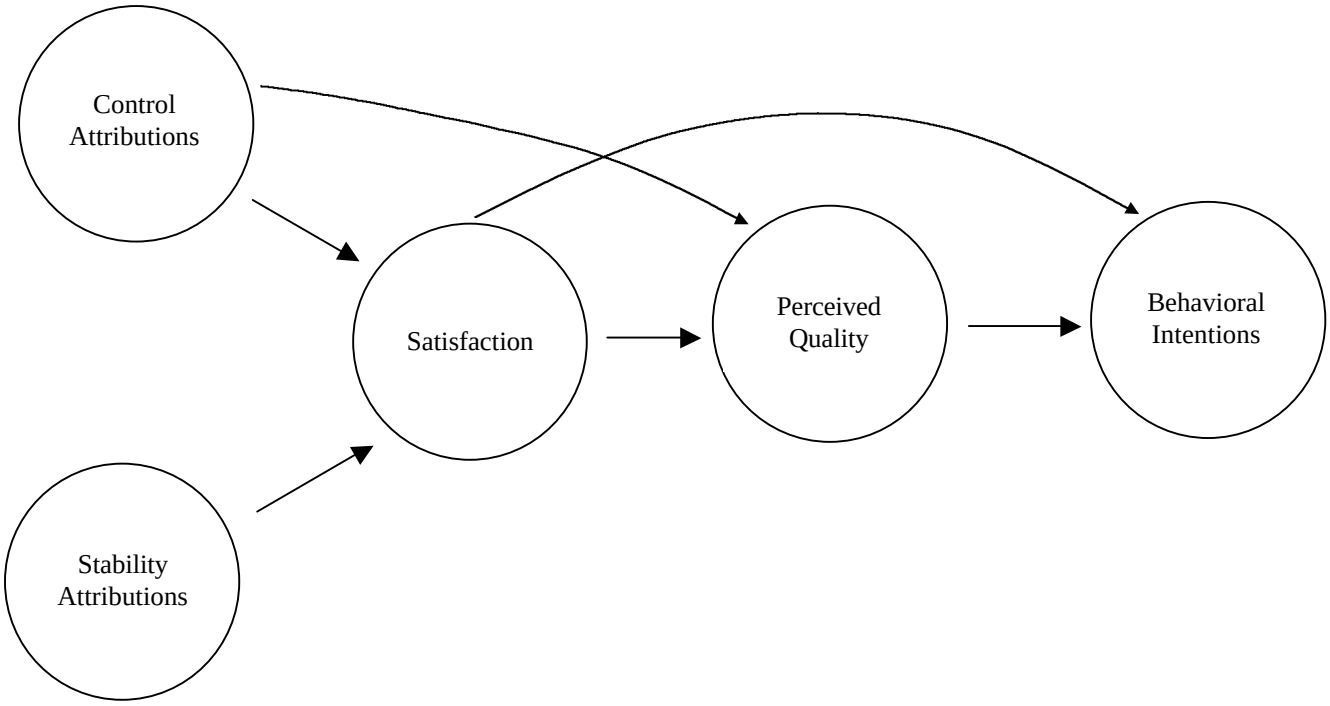
In the mid-1980s, Gronroos called for a definition of service quality capable of guiding management decisions. "Too often the term quality is used as if it were a variable itself, and not a function of a range of resources and activities" (Gronroos, 1984, p. 37). He made the point that merely saying service quality is necessary to insure success, is meaningless. The crux of the issue evolves around understanding how customers interpret quality and consequently how a company can best utilize its resources and activities to positively impact service quality.

A satisfaction theory was borrowed from the area of consumer behavior to provide the foundation for a popular conceptualization of service quality. The disconfirmation paradigm says "a customer's immediate reaction after consumption depends on a comparison of prior expectations and perceived performance, resulting in confirmation of expectations or in positive/negative disconfirmation when expectations and performance do not match" (Bitner, 1990, p. 71) (see Figure 6). Gronroos adapted disconfirmation theory to explain service quality. He said that "the perceived quality of a given service will be the outcome of an evaluation process where consumers compare their expectations with service they perceive they got, i.e., they put the perceived service against the expected service" (Gronroos, 1984, p. 38).

Although closely akin, researchers suggest that customer satisfaction and service quality are two distinct constructs (Bitner, 1990; Parasuraman et al., 1988). The most common explanation of the difference between the two is that "perceived service quality is a form of attitude, a long-run overall evaluation, whereas satisfaction is a transaction-specific measure" (Bitner, 1990; Parasuraman et al., 1988). Oliver (1981) explained that attitude is a relatively enduring affective orientation while satisfaction is an emotional reaction that generally follows a disconfirmation experience. The relationship between customer satisfaction and perceived quality continues to be a topic of study. One researcher (Oliver, 1981) found that satisfaction mediates the effect of prior-period perceptions of service quality to cause a revised service quality perception, while Bitner's (1990) research indicated that customer satisfaction is an antecedent of service quality.

Gronroos (1984) extended his definition of service quality to include two dimensions, technical and functional. An evaluation of "what' the consumer receives in interactions with the service firm is technical quality; "how" the customer receives a service is called functional quality. Functional quality equates to the expressive performance of a service. Gronroos (1984) also incorporated the concept of corporate image into his quality model. Corporate image results from how consumers perceive the firm (technical quality and functional quality) in addition to external factors (tradition, ideology, word-of-mouth), and marketing activities (advertising, pricing, public relations).

Regarding either goods or services, consumers infer quality through various cues or features/attributes of the good or service (Hartline & Jones, 1996). Researchers (Olson, 1977; Zeithaml 1988) have dichotomized the features of a service into intrinsic and extrinsic cues. Intrinsic cues are part of the physical composition whereas extrinsic cues are related to the



Source: Bitner (1990)

Figure 6. Significant paths for a model of service encounter evaluation

product but not part of the product itself. Since services are intangible, extrinsic cues are important to consumers who try to judge the quality of a service prior to actual purchase/consumption. During consumption, however, intrinsic cues become more relevant since they are consumed simultaneously with the service (Hartline & Jones, 1996).

"Of all the intrinsic cues for service, employee performance may be the most important" (Hartline & Jones, 1996, p. 208). Researchers such as Bitner, Booms and Tetreault (1990) investigated the importance of customer-contact employees in determining the functional quality of services. Bitner et al. (1990) used the critical incident method to uncover the particular events and related behaviors of contact employees that caused customers to judge service encounters as satisfactory or unsatisfactory. Employee behaviors that affected customer satisfaction were factored into one of three groups: (1) employee responses to service delivery system failures, (2) employee responses to customer needs and requests, and (3) unprompted and unsolicited employee actions (Bitner et al., 1990).

A study in 1989 attempted to "develop a comprehensive picture of what quality is and what achieving it requires" (Derrick, Desai, & O'Brien, 1989, p. 22). Analysis indicated that factors influencing quality fell into three general areas: (1) employee commitment to quality, (2) production aspects of quality, and (3) what a company means by the word "quality" in terms of information and human resources. Interestingly, perception of quality differed among the employment levels of workers, middle managers, and upper managers. The authors noted that the multidimensional nature of quality coupled with a lack of a singular perspective of quality, greatly complicated the process of attempting to improve quality.

Parasuraman, Zeithaml, and Berry's Research on Service Quality

Although the quest for quality was unquestionably one of the most important consumer trends of the 1980s (Rabin, 1983), difficulties delimiting and measuring the construct deterred all

but a few researchers from attempting to model quality. In 1985, however, Parasuraman et al. published a seminal article that proposed a conceptual model of service quality; their research provided a framework for additional empirical studies on the topic (see Figure 3).

Perhaps the most important insight that Parasuraman et al. (1985) gleaned from a series of executive interviews was that a series of gaps existed between the executive perceptions of service quality and the tasks associated with service delivery to consumers. The authors proposed that these gaps could be major hurdles in the attempt to deliver a service which consumers would perceive as being of high quality. Consequently, and in accordance with the conceptual arguments of Gronroos regarding expectations and perceptions, Parasuraman et al. proposed that "the quality that a consumer perceives in a service is a function of the magnitude and direction of the gap between expected service and perceived service" (1985, p. 46).

Another important outcome of the exploratory research was identification of ten key categories or service quality determinants that company executives consistently mentioned in terms of consumers' evaluations of service quality. Parasuraman et al. (1985) defined the ten determinants of service quality as follows:

1. Reliability involves consistency of performance and dependability.
2. Responsiveness concerns the willingness or readiness of employees to provide service.
3. Competence means possession of the required skills and knowledge to perform the service.
4. Access involves approachability and ease of contact.
5. Courtesy involves politeness, respect, consideration, and friendliness of contact personnel.

6. Communication means keeping customers informed in language they can understand and listening to them.

7. Credibility involves trustworthiness, believability, honesty; it involves having the customer's best interests at heart.

8. Security is the freedom from danger, risk, or doubt.

9. Understanding/knowing the customer involves making the effort to understand the customer's needs.

10. Tangibles include the physical evidence of the service.

Three years after their initial article on service quality, Parasuraman et al. (1988) published research that tested SERVQUAL, a scale they developed to measure the construct of perceived service quality. Perceived quality is the consumer's impression regarding overall excellence or superiority (Zeithaml, 1987). "It is a form of attitude, related but not equivalent to satisfaction that results from a comparison of expectations with perceptions of performance" (Parasuraman et al., 1988, p. 15).

The ten service quality dimensions previously described were used as the basic structure for the SERVQUAL instrument. Approximately ten items representing each dimension were generated, and each item was recast into two statements: one measured expectations and the other accessed perceptions (Parasuraman et al., 1988). According to recommended procedures for scale development (Churchill, 1979), half of the items were worded positively and the remainder were worded negatively. A seven-point scale ranging from "Strongly Agree" (7) to "Strongly Disagree" (1) allowed respondents to evaluate each item. Expectations were grouped to form the first half of the survey and perception statements formed the second half of the survey.

SERVQUAL research was conducted in two phases (Parasuraman et al., 1988). The first phase focused on condensing the instrument and establishing the reliability of the dimensional components of the scale. Confirmatory in nature, the second phase tested the refined scale using fresh data. Data for phase one was gathered from 200 adult respondents, covering five service categories. Through a process of scale purification (Churchill, 1979), that included factor analysis, a 34-item scale representing five dimensions (tangibles, reliability, responsiveness, assurance, and empathy) was deemed reliable for testing in phase two.

The second phase sought to determine the robustness of the 34-item scale, and therefore service quality was assessed for four different firms. Parasuraman et al. (1988) concluded that SERVQUAL possessed high reliability and high internal consistencies while exhibiting trait validity, content validity, and convergent validity. The authors alluded to the fact that the scale did not meet the conceptual and empirical criteria to verify construct validity. They concluded the article by suggesting that SERVQUAL was applicable across a broad spectrum of services and that it was most valuable to management when used periodically to track service quality trends.

As Parasuraman et al. had hoped, SERVQUAL generated a flurry of interest in service quality and other researchers adapted, tested, challenged and/or refined the instrument. In the hospitality industry, LODGSERV was developed and tested by Knutson, Stevens, Wullaert, Patton, and Yokoyama (1990) for the lodging industry while DINESERV (Stevens, Knutson, & Patton, 1995) was developed to assess service quality in restaurants. Headley and Miller (1993) found SERVQUAL useful in evaluating medical care services as they found a weak but significant relationship between patients' perception of service quality and their behavioral

intentions. The dimensions of reliability, dependability, and empathy were most predictive of a patient's intent to complain, compliment, repeat purchase and/or switch providers.

Three of the more substantive critiques of SERVQUAL were conducted by Carman (1990), Cronin and Taylor (1992), and Teas (1993). Carman (1990) found that the stability of the dimensions was impressive, but he challenged the claim that the instrument was generically applicable across a spectrum of services. He suggested that for each service being evaluated, (1) eight (versus five) of the original ten dimensions should be retained until factor analysis indicates that they are not unique, (2) items defining dimensions needed to be customized, and (3) the revised instrument must to be checked for reliability and validity before commercial application. Carman noted the importance of customer expectations, but challenged future researchers to develop alternative procedures for the collection and analysis of expectation data. In his article, he noted the value in asking respondents to weigh the importance of the service attributes being evaluated (Carman, 1990).

Cronin and Taylor (1992) questioned the SERVQUAL'S operationalization of service quality, asserting that it confuses satisfaction and attitude. Their research further indicated: (1) performance-based measures are better predictors of service quality than gap (perceptions minus expectations) measurements, (2) service quality is an antecedent to satisfaction, as opposed to the other way around as suggested by Bitner (1990), and (3) satisfaction is better than service quality at predicting customer purchase intentions. When developing SERVPERF, Cronin and Taylor's alternative to SERVQUAL, the authors used the same twenty-two performance items from the Parasuraman et al. (1988) research. When testing dimensionality, however, factor analysis failed to confirm the five-component structure; therefore, Cronin and Taylor concluded that the items were unidimensional.

Similarly, Teas (1993) used various conceptual and mathematical arguments to question the meaningfulness of SERVQUAL'S utilization of perceptions minus expectations to determine service quality. He concluded that a specification called "evaluated performance" provided a superior assessment.

Based upon input from other researchers, Parasuraman et al. (1991, 1994) published two reassessments of SERVQUAL. The 1991 review produced the following refinements:

1. Negatively worded items were changed to a positive format.

2. One new item was added under tangibles and one was added under assurance to more fully capture the dimension.

3. Customers were asked to allocate 100 points across the dimensions as an indication of relative importance.

The refinements caused the new scale to have a greater degree of overlap among the dimensions. Tangibles became dichotomized into physical facilities/equipment and employees/communication materials. Responsiveness and assurance, virtually indistinguishable in the five-factor analysis, were distinct in the six-factor solution and thus allowed dimensions other than tangibles to emerge as unique. "Collective replications by and large provide consistent support for the reliability, face validity and predictive/concurrent validity for the SERVQUAL scores on the five dimensions" (Parasuraman et al., 1991, p. 441).

In their 1994 reassessment, Parasuraman et al. continued to defend their use of the controversial perception minus expectation measurement, in spite of the fact that performance only has a slightly higher predictive power regarding service quality. They claimed that there is offsetting value in the diagnostic value of the gap measure and practical usefulness in measuring expectations. According to Perreault (1992), determinations regarding acceptability of

measures should be tempered by the properties of the measure with the likely impact of the measure on the interpretation of substantive relationships. Parasuraman et al. (1994) concluded that although further research is needed regarding the assessment of service quality, the alternative measures posed by Cronin and Taylor (1992) and Teas (1993) do not justify the abandonment of SERVQUAL.

Adult Education

By referencing a job environment, the definition of training infers that adults (albeit sometimes young adults) as opposed to children are the subjects of the activity. Therefore, "adult-learning principles have a place in most workplace training situations" (Reed, 1993, p. 21).

Historically, two streams of inquiry prevailed regarding adult education in the early 1900s. The scientific stream focused on learning ability (e.g. can adults learn?) while the artistic or intuitive/reflective stream sought to analyze the experience (e.g. how do adults learn?) (Knowles, 1978). Fragmented with isolated concepts, adult learning was integrated into a framework known as andragogy by Knowles in the late 1940s. Andragogy refers to the art and science of adult learning. Knowles borrowed the term from a Dutch educator and used it to differentiate between adult learning and youth learning (pedagogy). The concept that adults learn differently from children, however, did not resonate with American businesspeople until the 1970s (Reed, 1993).

The learner focus of the andragogical model differentiates it from the pedagogical model that is teacher focused. Many of the following assumptions of andragogy are consistent with the research findings regarding training inputs to transfer: (1) adults need to understand why they need to learn something, (2) adult learners must be recognized as being capable of self-direction,

(3) adults derive self-identity from their experiences; therefore, experiential techniques should be applied in the learning environment, (4) adults have a readiness to learn, (5) adults are life-centered and, therefore, are motivated to learn something to the extent that they perceive it will help them in life situations (Knowles, 1978).

Additionally, adults are motivated more by internal versus external factors. Self-esteem, confidence, recognition, and quality of life are important motivators, and adults respond best in a non-threatening, pleasant environment. "An adult who is dissatisfied with the learning process is unlikely to continue taking part in it" (Reed, 1993, p. 21).

Tight (1996) explained training in relationship to education and learning. He asserted that training is usually viewed as narrow, skill-based and specific; whereas education is broad, knowledge based, and general. Learning, on the other hand, is an enigmatic concept that represents a fundamental human process. There is no common understanding of how people learn, moreover educators and researchers cannot even agree upon a definition of learning. Tight suggested that training, a subset of education, and education, a subset of learning, are separate but partially intersecting concepts (Tight, 1996).

The areas of adult education and training identified quality of training as a key curricular concern (Tight, 1996). Although much effort has been expended (particularly in The United Kingdom) to control, validate, examine and assess the quality level of education and training, confusion exists regarding the definition of quality. Specifically, questions regarding the distinct characteristics of quality in an educational or training context need to be addressed. Understanding the role that quality assurance plays in a training setting necessitates further research.

Summary

The literature reviewed in this chapter provides the theoretical framework for development of a training evaluation tool to assess perceived quality of training. Research from the broad areas of training, services, and adult learning combine to form the multi-dimensional construct of perceived quality of training. As discussed, there is a great need to maximize training transfer, and an understanding of the dimensions of training quality presents an opportunity to contribute to the existing body of knowledge.

CHAPTER III

METHODOLOGY

Introduction

This chapter discusses the methodology used to investigate the constructs and relationships that define the conceptual model of training quality and transfer (see Figure 7). The corresponding proposition and hypotheses are introduced in context of the research questions posed in Chapter I.

The research design or master plan of the study was executed in two phases. The first phase focused on development and refinement of the scales used to measure the constructs of the model; phase 2 involved the actual testing of the developed perceived training quality instrument. A discussion of phase 2 of the research addresses unit of analysis, target population, sampling frame, instrument development, and data collection. Chapter III concludes with a review of the statistical analysis used to test the hypotheses.

Conceptual Model

The literature review presented in Chapter II serves as a basis for the development and discussion of the following conceptual model (see Figure 7). By taking an eclectic approach to theory development, this research integrates constructs and theories from the areas of training, service, and adult education.

Figure 7 illustrates the proposed model of perceived training quality and transfer. Although the rationale for the entire model will be reviewed, the dotted lines define that portion of the model tested in this study. The remainder of the model provides thought for future research.

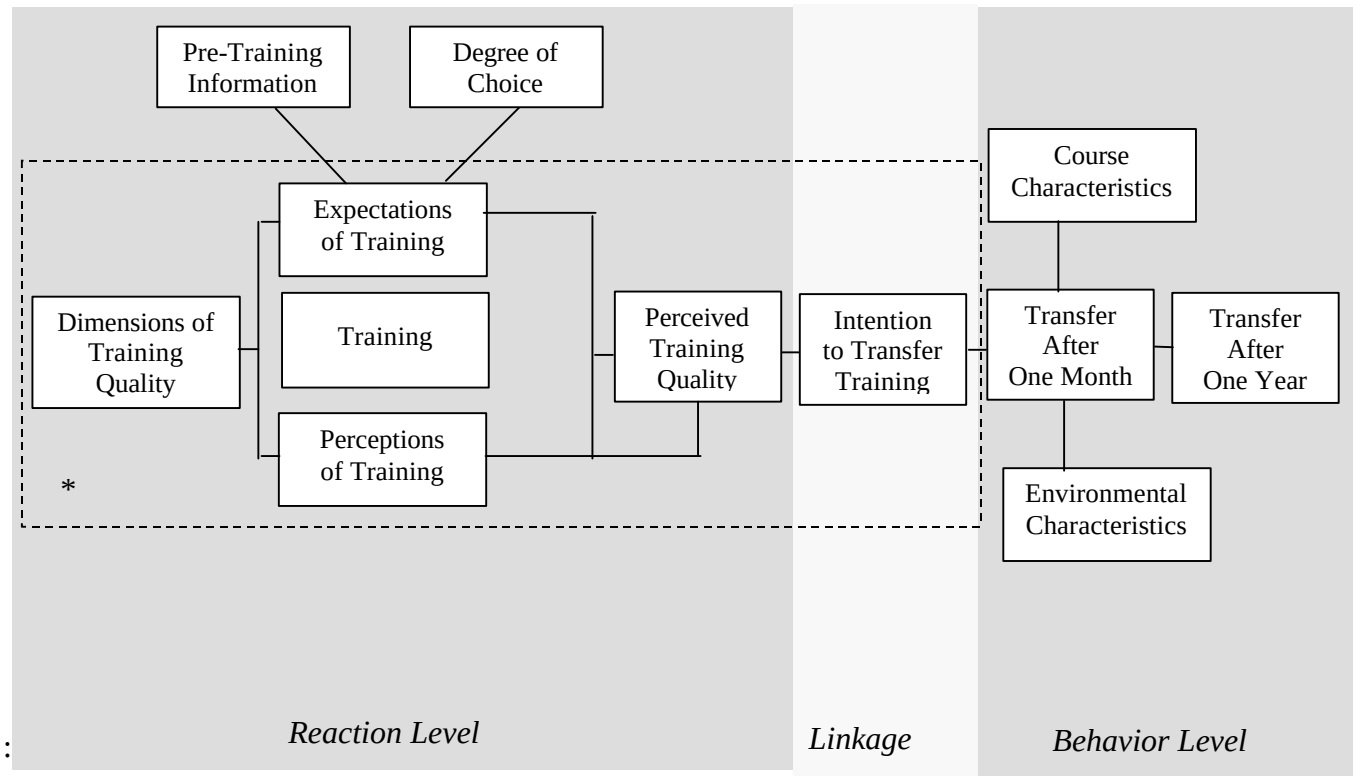


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Figure 7. Proposed model of perceived training quality and transfer

* Indicates portion of model to be tested

Given that training meets the criteria (e.g. intangibility, heterogeneity, and inseparability of production and consumption) to be classified as a service, the dimensions of perceived training quality are anticipated to be similar to the dimensions of service quality (Becker, 1992; Lovelock, 1983; Parasuraman et al., 1988). The five dimensions of service quality identified by Parasuraman et al. (1988) include reliability, responsiveness, tangibles, assurance, and empathy.

Although Parasuraman et al. assert that their SERVQUAL instrument is applicable to all services, Carman (1990) replicated the testing of SERVQUAL and suggested that the battery of questions needed to be modified when adapting it to particular service settings. Accordingly, this research did not merely test SERVQUAL in a training venue (e.g. TRAINQUAL), but rather approached the process inductively to fully explore dimensionalities that may be unique within the training quality domain (Hinkin, Tracey, & Enz, 1997). The protocol of Parasuraman et al. (1985, 1988) was followed and comparisons were made between training quality dimensions and service quality dimensions.

The works of Gronroos (1982) and Parasuraman et al. (1985) support the notion that customers perceive service quality as a comparison of what they think a service should offer and their perceptions of the actual performance of the service providers. On the basis that training is a service for employees, the internal customers of the organization (Alliger et al., 1997), this study adapted the previous definition to say that perceived training quality is the difference between trainees' expectations of training and their perceptions of the actual performance of training. Expectation and perception ratings of corresponding statements are evaluated for each item that defines a given dimension of training quality. Mathematically, the equation is expressed as $TQ = \Sigma (P_i - E_i)$ where i is a training quality attribute and the sum is over K training quality attributes for each dimension. For example, given the number of dimensions of

training quality and the number of attributes that define each dimension, then the $\Sigma (P_i - E_i)$ for each dimension of attributes can be averaged to understand training quality. Total training quality will be determined as an average difference score across all dimensions (Parasuraman et al., 1988).

As a determinant of service quality, researchers have debated the merits of examining both expectations and perceptions in comparison to a perception of performance only measure (Carman, 1990; Cronin and Taylor, 1992; Parasuraman et al. 1985, 1988, 1991, 1994; Carman, 1990; Teas, 1993). In the specific context of training, however, researchers concur that expectations are an important factor in understanding affective and behavioral training outcomes (Hicks & Klimoski, 1987; Hoiberg & Berry, 1978; Tannenbaum et al., 1991). For example, Tannenbaum et al. (1991) investigated the difference between expectations and perceptions of training and termed it training fulfillment. They found that training fulfillment significantly affected trainees' post-training attitudes of commitment and motivation (to transfer training). The model proposed in Figure 7 evaluates the gap model (perceptions minus expectations) as well as a perception only measurement to determine which is more highly correlated with an assessment of overall perceived quality of training. Based upon the results of testing, a revised model is presented in the last chapter.

The proposed model of training quality and transfer features two inputs shown to impact trainees' expectations: pre-training information and degree of choice. Hoiberg and Berry (1978) found that in Navy recruit training, expectations related significantly to graduation. New recruits who did not complete service training were inaccurately informed about the job setting; researchers concluded that pre-training information should be reflective of actual training and job

demands. Hicks & Klimoski's (1987) research echoed the need for realistic pre-training announcements and materials.

Degree of choice or "how much opportunity employees have to select training opportunities on the basis of their own needs and desires" (Hicks & Klimoski, 1987, p. 543) is another factor affecting pre-training expectations. Trainees who have a high degree of choice regarding attendance (e.g. voluntary versus required) were found to be better able to profit from the training and were more satisfied with training than trainees with low degree of choice (Hicks & Klimoski, 1987). On the other hand, Baldwin & Magjuka (1991) found that mandatory participation signals the importance of training and therefore is more likely to lead to transfer. Because this study focuses on construct measurement as opposed to construct formation, the inputs to expectations of training (pre-training information and degree of choice) are not included in the portion of the model to be tested in this research.

Regarding the construct of perceived quality of training, Knowles' (1978) assumptions of andragogy support this study's use of the humanistic as opposed to the objective approach to quality assessment (Parasuraman et al., 1988). User-focused humanistic quality suggests a highly relativistic judgement while mechanistic or objective quality targets the feature of a thing or event (Holbrook & Corfman, 1985). Hicks and Klimoski (1987) summarized the value of understanding the point of view of trainees as "critical to attaining training outcomes and to the overall success of training interventions" (p. 549). One of the well-established tenants of adult education contends that people only learn what they want to learn (Knowles, 1978); therefore, trainees' perceptions are all-important.

Parasuraman et al. (1988) refer to the writings of Olshavsky (1985) and Holbrook and Corfman (1985) for support of their premise that quality is an attitude. Moreover, attitudes have

been shown to “significantly and substantially predict future behavior” (Kraus, 1995, p. 58). As an interim step linking reactions (level one) and behavior (level three) in Kirkpatrick's model of training evaluation criteria, this study tests the effect of perceived training quality on a trainees’ intentions to transfer knowledge or skills. Based upon the findings of Alliger et al. (1997) that challenge the hierarchical nature of Kirkpatrick's model, it is not necessary to include the second level (learning) as part of the proposed model of training quality and transfer.

Ajzen and Fishbein (1980) suggested that one of the best ways to predict human behavior is by understanding predisposing intentions. “An intent to behave is a result of experience with a service or information deemed relevant by the consumer about that service. This predisposition or attitude suggests a determining factor in a consumer’s behavior toward the offering as future need arises” (Headley & Miller, 1993, p. 34). Baldwin and Magjuka (1991) used intentions to transfer as a post-training measure to determine the effects of pre-training conditions (e.g. information received, accountability to supervisor, and mandatory participation). Headley and Miller (1993) adapted SERVQUAL to a healthcare setting and found that perceived service quality is predictive of a patient’s behavioral intentions to complain, compliment, repeat purchase, and switch providers. And while Cronin and Taylor’s (1992) research did not indicate that service quality has a significant effect on purchase intentions, Bitner (1990) found perceived service quality as a significant predictor of behavioral intentions.

In a longitudinal study, Axtell et al. (1997) measured motivation to transfer, a construct similar to intention to transfer, immediately after training, and actual transfer one month and one year after trainees returned to their jobs. They found that motivation to transfer was highly and significantly correlated with transfer after one month as well as transfer after one year. Transfer after one month was significantly correlated with transfer after one year. Although actual

transfer is part of the proposed model, this research does not go beyond an evaluation of intention to transfer.

Baldwin and Ford's (1988) model of training transfer indicated three major categories of inputs: trainee characteristics, course characteristics, and environment characteristics. This study focuses on the attitude of perceived quality of training, a previously unexplored trainee characteristic. Research regarding course characteristics and environmental characteristics was reviewed in the previous chapter.

Research Proposition and Hypotheses

The three research questions posed in Chapter I are addressed through a combination of one proposition and two hypotheses. A proposition that links concepts was most appropriate for the first research question since it required a qualitative (versus statistical) investigation (Zikmund, 1997). On the other hand, research questions two and three are best represented by empirically testable hypotheses. Hypotheses 1 and 2 are hierarchical in the sense that the best measurement of perceived training quality, as determined per hypothesis 1, will be used to test hypothesis 2.

Research Question 1

What are the dimensions or primary factors that determine a trainee's perception of training quality?

Proposition 1: The dimensions that define perceived training quality are similar to the dimensions (tangibles, reliability, responsiveness, assurance, and empathy) that have been found to comprise the construct of service quality.

Research Question 2

How does a perception minus expectations (P-E) measurement of perceived training quality compare with a perception only (P) measurement?

Research Hypothesis 1: The correlation of the gap score (P-E) across all dimensions (as determined by averaging the mean scores for each dimension) to overall training quality is not equal to the correlation of a perception only (P) measure across all dimensions (as determined by averaging the mean scores for each dimension) to overall training quality.

Research Question 3

Is there a relationship between perceived training quality and trainees' self-reported intentions to transfer training?

Research Hypothesis 2: The greater the trainees' perceptions of training quality, the greater are their self-reported intentions to transfer training.

Research Design

The design of this study was separated into two phases. The first phase involved identification of the dimensions of training quality and the development of multi-item scales to measure the construct. Phase 2 further refined the scales while investigating proposition 1 and testing hypotheses 1 and 2 via administration of an instrument that incorporated the scales developed in phase 1.

Phase 1

Methods

Similar to other research in the area of training, this study was conducted in field settings through use of survey questionnaires. Existing scales to assess training quality did not exist and therefore phase 1 was dedicated to developing a measure. The scale development process

outlined in Figure 8 was followed, with minor adaptations necessitated by the exploratory nature of this research. A focus was maintained, however, on reliability and validity issues which served to reduce the possibility of methodological criticism that could seriously challenge the results of the research (Hinkin et al., 1997).

Item Generation. The accurate and complete identification of training quality determinants and related items during the initial step of idea generation is basic to the success of this research. Accordingly, data was collected from professional trainers as well as from trainees in the hospitality field via the qualitative technique of experience surveying. Although not necessarily representative of the sample, experience surveys focus upon the knowledge of the participants regarding a specific topic; surveying ranged from informal conversations to more structured interviews (Zikmund, 1997).

For this research, a semi-structured interview format was used whereby all interviewees were initially asked the same open-ended question in an open ended format. Based upon their responses, further questions were formulated to fully understand the interviewee's comments. Regarding the required number of interviews, qualitative methodology indicates that subjects are interviewed until no new information is being revealed; that serves as an indication that sufficient research has been conducted (Berg, 1998). In this case, nine interviews were conducted with six trainers and three trainees with times ranging from 45 minutes to almost two hours per interview. A total of approximately nine hours of interviewing was conducted.

For each interview, the researcher took thorough notes and transcribed them immediately following the interview (see Appendix A). After all of the interviews were completed, content analysis of the conversations was facilitated through identification of content elements (Berg, 1998). The researcher carefully read the interviews and highlighted the major elements (words

Step 1: Item Generation
Create Items

Step 2: Content Adequacy Assessment
Test for conceptual consistency of items

Step 3: Questionnaire Administration
Determine the scale for items
Determine an adequate sample size
Administer questions with other established measures

Step 4: Factor Analysis
Exploratory to reduce the set of items
Confirmatory to test the significance of the scale

Step 5: Internal Consistency Assessment
Determine the reliability of the scale

Step 6: Construct Validity
Determine the convergent and criterion-related validity

Step 7: Replication
Repeat the scale-testing process with a new data set

Source: Hinkin, Tracey, & Enz (1997)

Figure 8. Guidelines for scale development and analysis

or concepts) that directly related to defining quality of training. A list of all of the highlighted words or concepts was compiled along with notations regarding the number of interviewees who mentioned each word or concept. The content elements were then grouped into logical classes or categories, and items were identified to fully explain and support each of the categories/ dimensions of training quality.

Content Adequacy Assessment. After the items were developed, they were pretested for content adequacy via the instrument in Appendix B. Definitions of training dimensions were listed on the left-hand side of each page and supporting items were listed on the right-hand side; the questionnaire was four pages in length. The nine training dimensions were repeated in the same order on each page while the sequence of the 65 items was determined through the use of a random numbers chart. This frequently overlooked step provided support for construct validity since it allowed for deletion of items that were conceptually inconsistent. The method used in this research required naïve respondents to sort items based upon their similarity to construct definitions (Hinkin et al., 1997). Thirty-nine hospitality students were presented with definitions (of the previously identified categories of training quality) without titles, and asked to match items with a corresponding definition. An acceptable agreement index of .60 was determined prior to administration of this step of the research. In other words, a minimum of 60% of the respondents had to pair an item with a definition in order for the item to be retained for the next stage of scale development.

Questionnaire Administration. The retained items that supported each category/ dimension of training quality were incorporated into a survey instrument (see Appendix C) that was administered to two groups of 80 club managers each who were attending training workshops. The same person facilitated both workshops on financial management topics. The

trainer distributed the questionnaires at the conclusion of training, and instructed trainees not to complete a questionnaire if they had done so at the previous training session.

The purpose of this step in the process was to "confirm expectations regarding the psychometric properties of the new measure" (Hinkin et al., 1997, p. 105). Since the instrument was measuring respondents attitudes toward training quality, a 5-point Likert scale was used to determine how strongly respondents agreed or disagreed with each item (1=strongly disagree and 5=strongly agree) (Zikmund, 1997).

The first section of the questionnaire phrased each item as an expectation of training (e.g. "Training should directly relate to trainees' jobs") and the second section phrased the same item as a perception of training (e.g. "Training directly related to my job."). The third section contained items pertaining to a trainee's intention to apply the skills/knowledge acquired during training when back on the job. The items in this final section were adapted from an intent to transfer scale developed by Baldwin and Magjuka (1991).

Exploratory Factor Analysis. "Item evaluation through factor analysis is one of the most critical steps in determining the viability of the scale" (Hinkin et al., 1997, p. 108). Although Hinkin et al. (1997) referenced the use of both exploratory and confirmatory factor analysis in their scale development process, the exploratory nature of this research negates the suitability of confirmatory factor analysis.

"Factor analysis is a generic name given to a class of multivariate statistical methods whose primary purpose is to define the underlying structure in a data matrix" (Hair, Anderson, Tatham, & Black, 1995). Recommendations regarding sample sizes for factor analysis range from a minimum of 50 total observations to 20 cases for each variable. Generally, however, it is

recommended to have at least five times as many observations as there are variables to be analyzed.

Assumptions regarding exploratory factor analysis are more conceptual than statistical, but it is important to establish the existence of sufficient correlations within the data matrix to justify the application of factor analysis. Both the measure of sampling adequacy (MSA) and the Bartlett test of sphericity were used to measure these intercorrelations and determine the appropriateness of factor analysis (Hair et al, 1995). Fundamental to the use of exploratory factor analysis is selection of the most suitable factoring method: component analysis or common factor analysis. Principal components analysis, used in this research, is often recommended since it addresses total variance through linear combinations of variables that explain the greatest variations of each dimension (SPSS, 1999).

Selection of the best rotational method aids interpretation of factors, and since the underlying dimensions of training quality are believed to be discrete, an orthogonal rotation (VARIMAX) was used in this research. Although the number of factors to be retained is based upon underlying theory and empirical results, eigenvalues greater than 1 helped to guide the decision-making.

Since the goal of exploratory factor analysis is to retain only those items that represent the content domain of the dimension, items with factor scores less than .55 were eliminated unless they contributed conceptually to explain their respective dimensions. This benchmark for statistical significance at the .05 level applies to a sample size obtained in phase 1 (Hair et al., 1995). However, Hinkin et al (1997) points out the .40 is the most commonly used overall standard by which to judge an item's meaningful contribution.

The process of eliminating items was conducted with concern regarding the number of items needed per dimension on the final scale. Although "there are no specific rules about the number of items to be retained" (Hinkin et al., 1997) internal consistency reliability generally requires four or five items per scale (Harvey, Billings & Nilan, 1985). Parsimony is also a concern since keeping a measure short reduces response bias caused by boredom (Schmitt & Stults, 1985).

As items were deleted per the previously discussed criteria, the analysis was run again to obtain the clearest factor structure possible. Since hypothesis 1 compares a gap measure of training quality (perception minus expectations) with a perception only measurement of training quality, the previously described process of factor analysis was run on the dimensions of perceived training quality as determined by both the gap (perceptions-expectations) measurement as well as perceptions only.

Internal Consistency Assessment. Chronbach's alpha is a single summary statistic that indicates the reliability of a scale (SPSS, 1999). In this research, Chronbach's alpha was used to assess how well items measured the same construct or dimension of training quality.

Construct Validity. Both content assessment and internal consistency are supportive of construct validity. In this research, however, construct validity was further established in the testing phase where the quality of training determined through the dimensions was compared with a single item scale used to determine overall perceived quality of training.

Replication. This last step in the scale refinement process will be facilitated through the testing of the instrument in phase 2 of this research.

Phase 2

Methods

Phase 2 involved the administration and testing of the perceived training quality instrument that incorporated the scales developed in phase 1.

Unit of analysis. Individuals who are trainees provided the data for this analysis. As previously discussed, theories of adult education as well as service quality support a trainee-focused approach to ascertaining training quality and intention to transfer training.

Target population. Defined as "the specific, complete group relevant to the research project," (Zikmund, 1997, p. 417) the target population for this study consisted of supervisory or management-level trainees who participated in instructor-led classes.

Sampling frame. The sampling frame for this research, or list of elements or people from which the sample was drawn (Zikmund, 1997), consisted of six instructor-led training classes conducted in the hospitality industry. Through non-probability convenience sampling, a sufficient number of completed questionnaires were obtained to meet the requirements of the statistical techniques. All attendees at each of the training sessions were asked to complete surveys. Since this research focused on concept measurement versus formation, with an ultimate goal of developing a training assessment tool generalizeable within the hospitality industry, it was deemed appropriate and advisable to sample from various training groups. Convenience sampling was justified considering the exploratory nature of the research and the intention to conduct further testing with a probability sample (Zikmund, 1997).

Instrument development. The scales developed and refined in phase 1 of the research provided the core for the perceived training quality instrument used to survey trainees (see Appendix D). The questionnaire consisted of two parts. Part 1 of the questionnaire focused on assessment of trainees' expectations of training quality, and was administered prior to training.

Part 2 of the questionnaire was given to trainees immediately upon completion of training, and it primarily addressed their perceptions of actual performance of training. The presentations of questionnaire parts 1 and 2 were identical: single fold, 8 1/2" x 11" booklets with instructions on the front covers followed by three pages of questions.

Opinions differ regarding the most appropriate time to gather information regarding expectations. Carman (1990) diminished the value of SERVQUAL's expectation responses since attitudes regarding both expectations and perceptions were taken after the service was rendered. Partially due to practical reasons, Parasuraman's et al. (1998) assessed expectations and perceptions at the same time. However, they acknowledged a concern for the cognitive changes that may occur within individuals between assessments (Golembiewski, 1989; Parasuraman et al., 1991).

Headley and Miller (1993) chose to use pre-encounter expectations measures and post-encounter perceptions measurements to assess the perceived quality of medical care services. They suggested their methodology captured "a true expectation of service more clearly," plus they were able to easily facilitate the administration procedure. The instrument used in this research gathered trainees' expectations of training immediately before training and their perceptions of training immediately after the training class concludes. This method was selected since it was possible to facilitate logistically, and the time elapse between administration of surveys was minimal. Following Carman's (1990) recommendations, however, information concerning respondents' familiarity with training will be gathered in the demographic section.

The pre-training questionnaire consisted of two sections. The first section listed the items representing the training quality dimensions; trainees were asked to express their attitudes toward training expectations on a five-point Likert scale (1=strongly disagree and 5=strongly agree).

The second section included demographic information regarding respondents' age, gender, length of time in current position, number of different jobs held in the past five years, etc.

The post-training questionnaire consisted of five sections. The first section listed the same items representing the training quality dimensions as were listed in the pre-training questionnaire, but this time trainees were asked to express their perceptions of the training just completed. As in part 1 of the questionnaire, a five-point Likert scale (1=strongly disagree and 5=strongly agree) was used to assess trainees' attitudes. Section II listed items that addressed the trainees' attitudes toward usefulness of training and/or their intentions to apply skills/knowledge obtained during training when they returned to work. Again, trainees were asked to respond on a five-point Likert scale (1=strongly disagree and 5=strongly agree).

Section III consisted of a single question that asked trainees to evaluate the overall quality of training just completed by circling a number on a continuum from one to ten (1=poor and 10=excellent). As McCleary and Weaver (1982) noted, validity is a primary reason for including a global item on a questionnaire. "The instrument would demonstrate concurrent validity if the clientele were responding to both the individual items and the global item in a similar fashion" (McCleary & Weaver, 1982, p. 87). In this research, the global measurement served to evaluate the construct validity of the multi-item training quality scale being tested. Although Parasuraman et al. (1988) used an ordinal scale (poor, fair, good, excellent) to measure overall quality, other researchers have found an interval scale (in this case, 1 to 10) to be a more reliable single-item scale when measuring overall attitudes (Maddox, 1985).

Section IV contained a single open-ended question regarding the percent of training just completed that trainees planned to apply to their jobs when they returned to work. The last section of the post-training questionnaire, Section V, asked trainees to allocate a total of 100

points to nine different features of training based upon their opinion of the relative importance of each feature (Parasuraman et al., 1991). The features were the definitions of the dimensions (without titles) identified in phase one of the research. The information gleaned from Sections IV and V was retained for subsequent studies rather than being used for this research.

Regarding pre-testing, a process used to detect problems in questionnaire design or clarity, the majority of the questionnaire was pre-tested in the scale development phase (Zikmund, 1997). However, both parts of the final instrument first were screened by a research professional, and then following a few minor changes the questionnaire was pre-tested by a convenience sample of three students and four professionals. No changes were suggested by the reviewers. The subjects who evaluated the questionnaire commented that it was straight-forward and quick to complete; each part took approximately five minutes.

Data collection. The process of gathering information from trainees was facilitated through a self-administered questionnaire (Zikmund, 1997). Although the researcher offered to travel to each of the six training sites to conduct the survey, in all cases the respective trainers preferred to administer the surveys themselves. Therefore, the researcher mailed overnight packages to each trainer in advance of his/her scheduled session. The package included the necessary number of questionnaires (parts 1 and 2), a letter of instruction explaining the administration procedure to the trainer, a pre-paid overnight return envelope, and two amazon.com gift certificates.

Prior to the beginning of training, the trainer was instructed to administer part 1 of the survey by reading the front page of the part 1 questionnaire to the trainees. The researcher instructed the trainer to emphasize the selection of a unique "code name" that each trainee needed to remember and use on both parts of his/her questionnaire. The code name was

necessary in order to match trainees' responses to parts 1 and 2 of the survey, while also assuring them of their anonymity.

Due to the sensitivity of some questions (e.g. "How likely is it that you will leave your current position within the next three months?") and the fact that the respondents were returning questionnaires to the trainer versus a third party, the researcher felt the use of a "code name" was critical to obtaining honest feedback. The danger, however, was that the trainees would forget their code names and therefore surveys would be unusable due to the inability to match parts 1 and 2. Verbiage at the beginning and end of each part of the questionnaire reminded respondents about using/remembering their code names, and the researcher used a yellow highlighter pen to draw attention to the "code name" line to be filled-in at the top of page 2 on parts 1 and 2 of the questionnaire.

At the completion of the training session, the trainer distributed part 2 of the survey, again reading aloud the cover page of the questionnaire. Attached to the front page of part 2 was a two-part numbered ticket. The trainer instructed the respondents to remove half of the ticket and keep it for a drawing that followed. All trainees who turned-in both parts of the questionnaire were eligible to win one of two $20.00 amazon.com gift certificates (per training session). The gift certificates were easy to order, quick to receive, simple to redeem, and the trainers reported that they were an effective incentive. All of the trainers promptly returned the completed surveys via the pre-paid overnight envelopes that were provided.

Research Question 1 and Proposition 1

The first of three research questions posed in this study was addressed through exploration of proposition 1.

Research Question 1: What are the dimensions or primary factors that determine a trainee's perception of training quality?

Proposition 1: The dimensions that define perceived training quality are similar to the dimensions (tangibles, reliability, responsiveness, assurance, and empathy) that have been found to comprise the construct of service quality.

Test: Since propositions are truth statements linking concepts as opposed to variables, statistical testing was not possible (Zikmund, 1997). Rather, the dimensions of training quality were identified through qualitative investigation, refined through several iterations of factor analysis, and then compared to the five service quality dimensions identified by Parasuraman et al. in their 1988 research. Similarities, differences, overlaps, etc. are highlighted and discussed in Chapter IV.

Research Questions 2 and 3, and Corresponding Hypotheses

Research questions 2 and 3 were answered via corresponding hypotheses 1 and 2. Hypothesis 1 involved calculation of perceived training quality as a gap measurement between perceptions and expectations. To facilitate the calculation, each training attribute item was measured on a five point Likert scale (1=strongly disagree to 5=strongly agree). The magnitude and direction of the score determines training quality. That is, -1 is a better quality rating than –2, or +1 is better than +.5; 0 indicates that perceptions equal expectations for each individual training attribute item.

Research question 2: How does a perception minus expectations (P-E) measurement of perceived training quality compare with a perception only (P) measurement?

Research Hypothesis 1: The correlation of the gap score (P-E) across all dimensions (as determined by averaging the mean scores for each dimension) to overall training quality is not equal to the correlation of a perception only (P) measure across all dimensions (as determined by averaging the mean scores for each dimension) to overall training quality.

Test of Hypothesis 1: A comparison of correlations.

Research question 3: Is there a relationship between perceived training quality and trainees' self-reported intentions to transfer training?

Research Hypothesis 2: The greater the trainees' perceptions of training quality, the greater are their self-reported intentions to transfer training.

Test of Hypothesis 2: A statistical test to determine if a positive correlation exists.

Statistical Tests

Due to the nature of this research, a statistical measure of association (e.g. bivariate analysis) is the most appropriate choice for testing both hypotheses 1 and 2. Although controversy exists regarding the ordinal or interval nature of multi-item Likert scales, they are generally viewed as interval when selecting appropriate statistical techniques. This research used simple correlation analysis, a popular technique that indicates the relationship between two variables (Zikmund, 1997).

"The simple correlation coefficient is a statistical measure of the covariation or association between two variables. The correlation coefficient (Pearson's *r*) ranges from +1.0 to -1.0" (Zikmund, 1997, p. 627). If the value of r is +1.0, then a perfect positive linear relationship exists; a -1.0 correlation coefficient indicates a perfect negative linear relationship between variables. Zero indicates no correlation between the variables. A correlation coefficient indicates both the magnitude and direction of a relationship. That is, -.87 indicates a fairly strong inverse relationship.

In lieu of a statistical test to evaluate the significant difference between two correlations derived from the same sample, a criterion level of .15 will be used to determine a meaningful difference between correlation coefficients for the testing of Hypothesis 1. Regarding

Hypothesis 2, the correlation will be tested using a one-tailed test at the probability level of .05 (H_0: $\rho = 0$, H_1: $\rho > 0$).

Summary

This section outlined the master plan for conducting the research described in Chapter I. Then, the researcher extracted the most relevant research from Chapter II and presented it in the context of the model developed for this dissertation. One proposition and two research hypotheses were developed in response to the three research questions originally posed.

Two phases comprised the research design. Phase 1 began with qualitative research that identified dimensions of perceived training quality, and then followed a process to develop a valid, reliable scale to measure the perceived training quality construct. The second or test phase of the research involved administration of the perceived training quality instrument that featured the scales developed in phase 1. Considerations regarding sampling, instrument design, data collection, and testing of the hypotheses were discussed.

CHAPTER IV

RESULTS

Introduction

This chapter presents the results of research conducted via phases 1 and 2 of this study. Phase 1 begins qualitatively, citing the results of the content analysis of interviews that led to identification of the dimensions of perceived training quality and the development of related items. The results of exploratory factor analysis and Cronbach's alpha test for internal consistency are explored for the gap measure as well as the perception only measurement of perceived training quality.

A new data set was used in phase 2 for the purpose of further refining the scales, assessing Proposition 1, and testing Hypotheses 1 and 2. The characteristics of the entire sample are reviewed along with information specific to each of the six training session groups; then, descriptive information regarding scale items is presented. Again, the results of factor analysis and tests for internal consistency are discussed in the context of making factor adjustments to the perceived training quality scales. The correlation analyses used to answer Hypotheses 1 and 2 are presented, as is a test for internal consistency of the dimensions across the six independent groups for the finalized scale used to measure perceived training quality.

Phase 1: Scale Development Process

Item Generation

The first step in the scale development process involved identification of training quality determinants and related items. To begin this process, nine experience surveys were

conducted with professional trainers and trainees working in the hospitality industry. Table 1 provides descriptive information regarding the individuals interviewed.

Descriptive Information Regarding Interviewees

A total of six trainers and three trainees were interviewed. Of the trainers, three were male and three were female. Four of the trainers worked directly in the hospitality industry and two conducted training in a more general business context. The six trainers had a combined total of 88 years of training experience; individual experience ranges from a maximum of 40 years to a minimum of five years experience. The trainers were carefully selected based upon their outstanding reputations in the training arena. Three of the trainers were employed by a leading university; one worked for a large resort company; and two worked for a large hotel and conference center. Regarding the trainees, two were male and one was female; they all worked in the hospitality industry for a large hotel and conference center. Only three trainees were interviewed because they were not contributing information beyond the scope provided by the trainers; they seemed to struggle with the open-ended questioning and needed more coaching.

Identification of Training Dimensions and Items

The interpretation of the qualitative portion of this research was conducted per the content analysis process identified by Berger (1998). After the nine interviews were conducted and documented, the transcripts of the conversations were reviewed, and the major content elements pertaining to determinants of training quality were highlighted. Thirty-six words or concepts were identified by at least one or as many as eight interviewees (see Table 2). Comments regarding meeting space and interactivity were most frequently mentioned by interviewees as factors determining training quality.

Table 1

Descriptive Information Regarding Experience Survey Interviewees

Interviewees	Gender	Trainer or trainee	Employers/State	Number of years training experience
1	male	trainer	University Virginia	40
2	male	trainer	University Virginia	20
3	female	trainer	University Virginia	10
4	female	trainer	Resort Company North Carolina	8
5	female	trainer	Hotel and Conference Center Virginia	5
6	male	trainer	Hotel and Conference Center Virginia	5
7	male	trainee	Hotel and Conference Center Virginia	n/a
8	male	trainee	Hotel and Conference Center Virginia	n/a
9	female	trainee	Hotel and Conference Center Virginia	n/a

Table 2

Content Analysis of the Experience Interviews Identifying Major Elements (Words or Concepts) Defining Determinants of Training Quality (n=9)

Major elements (words or concepts)	Number of interviewees who identified word or concept
1. Needs-based	1
2. Goal-oriented	1
3. Relevant	5
4. Realistic	1
5. Professionalism	3
6. Credibility	5
7. Organization	5
8. Materials	5
9. Mixed media	1
10. Trainer on same level	2
11. Fun	5
12. Entertainment	2
13. Engaging	3
14. Mood	5
15. Safety	2
16. Flexible	4
17. Interactivity	8

18. Communication	1

Major elements (words or concepts)	Number of interviewees who identified word or concept
19. Ice-breakers	3
20. Supportive	1
21. Relational	2
22. Respectful	4
23. Empathy	4
24. Caring	4
25. Accessibility	3
26. Lodging	1
27. Meals	3
28. Refreshments	2
29. Meeting space	8
30. Comfort	5
31. Seating arrangement	3
32. Room temperature	2
33. Chairs	2
34. Breaks	3
35. Accountability	4
36. Progressive feedback	3

Qualitative methodology then called for the 36 words or concepts previously identified to be grouped into logical classes or categories. This process resulted in nine categories of training quality determinants/dimensions, as illustrated in Table 3. The nine categories were titled relevance, credibility, entertainment, interactivity, tangibles, organization, climate, courtesy, and accountability. The researcher's subjective selection of the titles for the nine dimensions was directed by the findings of the content analysis of the interviews. An attempt was not made at this point to create training quality dimension titles to be either similar or dissimilar to the service quality dimension titles of Parasuraman et al. (1985). Instead, an inductive approach was used to gather the information specific to training; data were then condensed into categories and labeled with terms that were most descriptive of the items they encompassed.

The final step in the qualitative process was to develop attributes/items that supported or further explained each dimension of training quality. Items were generated based upon the comments of interviewees as well as the researcher's own understanding of the content area. Specific rules regarding the number of items do not exist. However, anticipating that only about half of the items would be retained for the final scale, two times the number of items needed for the final scales were generated at this stage of scale development (Hinkin et al., 1997). Table 4 lists the 65 items developed for the nine dimensions of training quality. Seven items explained relevance; six items defined credibility; nine items were identified for entertainment; seven items explained interactivity; eight items related to tangibles; eight items defined organization; seven items represented climate; eight items were developed for courtesy; and five items explained the dimension of accountability. Definitions for each of the dimensions were developed to be umbrella statements that encompassed the related items (see Table 4).

Table 3

Content Analysis of the Experience Interviews Grouping Major Elements (Words or Concepts) into Classes or Categories that Determine Training Quality

Titles of theoretical classes/categories	Components of classes/categories (36 words or concepts from Table 2)
Relevance	Relevant
	Need-based
	Goal-oriented
	Realistic
Credibility	Credibility
	Professionalism
Entertainment	Entertainment
	Fun
	Engaging
	Mixed media
	Ice-breakers
Interactivity	Interactivity
	Communication
	Seating arrangement
Organization	Organization
	Breaks

Title of theoretical classes/categories	Components of class/category (words or concepts from Table 2)
Courtesy	Trainer on same level
	Supportive
	Respectful
	Relational
	Accessibility
Climate	Caring
	Empathy
	Flexible
	Mood
	Safety
	Comfort
Tangibles	Materials
	Lodging
	Meals
	Refreshments
	Meeting Space
	Room temperature
	Chairs
Accountability	Accountability
	Progressive feedback

Table 4

List of Items That Support and Explain the Classes/Categories or Dimensions of Perceived Training Quality

Dimensions of training quality with definitions	Supporting items for each dimension of training quality
Relevance: Relevance refers to the degree of applicability and/or usefulness of training to trainees' jobs.	The goals of training are clearly explained.
	A clear purpose for training is stated.
	Trainees are told "why" training is important.
	Training is based upon the needs of trainees.
	Training directly relates to trainees' jobs.
	Training presents a realistic picture of the job.
	Training is trainee-focused.
Credibility: Credibility involves believability of training and confidence that information is truthfully based upon knowledge and experience.	Trainer has done the trainees' job.
	Trainer is knowledgeable
	Trainer is an expert in area of training topic.
	Trainer is candid about his/her experience on job.
	Trainer is confident.
	Training is developed by people who have done the trainee's job.

Dimensions of training quality with definitions	Supporting items for each dimension of training quality
Entertainment: Entertainment is the element of fun that engages trainees and holds their attention.	Training includes humor
	Training includes toys for trainees to play with.
	Training incorporates multiple media.
	Trainer presents topic enthusiastically.
	Trainer has great attitude.
	Training is fun.
	Training includes the use of games.
	Training includes ice-breaker exercises.
	Training includes activities to accompany topics.
Interactivity: Interactivity means that trainees are actively involved in the training process.	Training involves active learning.
	Training includes role playing exercises.
	Training features small group work.
	Training encourages dialogue among participants.
	Trainees are active participants in training.
	Trainees learn from each other.
	Seating in the meeting room facilitates interaction.

Dimensions of training quality with definitions	Supporting items for each dimension of training quality
Tangibles: Tangibles include the physical or material components of training.	Written training materials are professionally prepared.
	Excellent food is provided during training.
	Excellent refreshments are provided during training.
	Excellent lodging accommodations are provided for trainees.
	The layout of the training room allows for ease of movement.
	Comfortable chairs are provided for trainees during training.
	Lighting level in training room allows for ease of reading and writing.
	The temperature in the training room is comfortable.
Organization: Organization refers to the systematic or orderly presentation of training.	Training is linear.
	Trainees know where training is going.
	Trainees know how much time will be allotted to various training topics.
	Training is well-planned.
	Training segments are short.
	Frequent breaks are incorporated into training schedule.
	Training provides progressive feedback for trainees.
	Training is flexible to adapt to the needs of the trainees.

Dimensions of training quality with definitions	Supporting items for each dimension of training quality
Climate: Climate is the surrounding condition or prevailing mood of the training environment.	Trainees feel relaxed in the training environment.
	The training environment is emotionally comfortable for trainee
	Training provides a safe (e.g. free from criticism environment for trainees.
	The training environment is casual.
	Trainees are at ease in the training environment.
	The training environment is informal.
	The mood during training is supportive of trainees.
Courtesy: Courtesy involves respect and concern for the well-being of the trainees.	Trainer is open to questions from trainees.
	Training conveys a sense of caring to the trainees.
	Trainer remembers trainees' names.
	Trainer shows personal interest in trainees.
	Honest communication occurs during training.
	Trainer operates on the same level as trainees.
	Trainer expresses appreciation for the experience of trainees.
	Trainer expresses concern that trainees learn content.

Dimensions of training quality with definitions	Supporting items for each dimension of training quality
Accountability: Accountability means trainees will be held answerable for the training content once they are back at their jobs.	Trainees commit to how they'll incorporate training once back at their jobs.
	Trainees are assigned a buddy and they help each other to implement training when back on the job.
	Training includes a mechanism to enforce the use of training content.
	Training includes a mechanism to follow-up with trainees after training concludes.
	Trainees understand the rewards of implementing training.

Content Adequacy Assessment

The purpose of assessing content adequacy was to determine the conceptual consistency of the items developed in the previous step of scale development. Although several options existed, this research used a process that required respondents to match items with construct definitions that were presented without titles (Hinkin et al., 1997). Since naïve subjects were acceptable provided they were capable of reading and understanding the concepts outlined, 39 hospitality students completed the questionnaire shown in Appendix A.

As a starting point in analyzing the responses, items were screened based upon an agreement index of .60. That is, at least 60% of the respondents had to match an item to the same definition. Using this criteria, 35 items (54%) were identified per Table 5. The following number of items were paired with a given dimension by at least 60% of the respondents: one item for relevance, five items for credibility, five items for entertainment, four items for interactivity, zero items for tangibles, five items for organization, nine items for climate, four items for courtesy, and two items for accountability. Since the next stage of testing required the number of items to be (1) equal across dimensions, (2) adequate (four to six item minimum) for internal consistency testing, (3) comprehensive enough to adequately explain the dimension, and (4) parsimonious not to fatigue the respondents, the following rationale was applied for selection of the final list of items (Hinkin et al., 1997).

First, it was determined that four items per dimension was the number to target in order to achieve the goals previously identified. For the two dimensions (interactivity and courtesy) that had four items, these items were carried forward to the next instrument. Regarding the three dimensions that had five items (credibility, entertainment, and organization), the items of lowest agreement were dropped for each dimension, and/or the five items were condensed into four via

Table 5

Items Indicated by a Minimum of 60% of Respondents to be Conceptual Associated with a Given Dimension of Training (n=39)

Items	Frequency	%	Dimension of training (matched by respondents)	Dimension of training (originally conceptualized)
Training directly relates to trainees' job	34	87.2	Relevance	Relevance
Trainer is knowledgeable	37	94.9	Credibility	Credibility
Training is developed by people who have done the trainees job	31	79.5	Credibility	Credibility
Trainer is confident	27	69.2	Credibility	Credibility
Trainer is candid about his/her work experience	26	66.7	Credibility	Credibility
Trainer has done trainees' job	24	61.5	Credibiltiy	Credibility
Trainer presents topic enthusiastically	32	82.1	Entertainment	Entertainment
Training includes humor	31	79.5	Entertainment	Entertainment
Training is fun	31	79.5	Entertainment	Entertainment
Training includes use of games	28	71.8	Entertainment	Entertainment
Toys are provided during training	24	61.5	Entertainment	Entertainment
Trainees learn from each other	27	69.2	Interaction	Interaction
Trainees are active participants in training	27	69.2	Interactivity	Interactivity
Training features small group work	26	66.7	Interactivity	Interactivity
Training involves active learning	24	61.5	Interactivity	Interactivity
Training is well-planned	37	94.9	Organization	Organization

Items	Frequency	%	Dimension of training (matched by respondents)	Dimension of training (originally conceptualized)
Trainees know sequence of training	36	92.3	Organization	Organization
Trainees know how much time will be allotted to various topics	35	89.7	Organization	Organization
Training segments are short	24	61.5	Organization	Organization
Training is linear	24	61.5	Organization	Organization
Trainees feel relaxed in environment	36	92.3	Climate	Climate
Trainees are at ease in training environment	36	92.3	Climate	Climate
Training environment is casual	35	89.7	Climate	Climate
Training environment is informal	34	87.2	Climate	Climate
Comfortable chairs are provided for trainees during training	32	82.1	Climate	Tangibles
The temperature in the room is comfortable	31	79.5	Climate	Tangibles
Lighting level in training room allows for ease of reading and writing	30	76.9	Climate	Tangibles
Environment is emotionally comfortable for trainees	29	74.4	Climate	Climate
Layout of training room allows for ease	28	71.8	Climate	Tangibles
Training conveys sense of caring to trainees of movement	37	94.9	Courtesy	Courtesy
Trainer remembers trainees' names	35	89.7	Courtesy	Courtesy
Trainer expresses appreciation for the experience of trainees	32	82.1	Courtesy	Courtesy
Trainers show personal interest in trainees	32	82.1	Courtesy	Courtesy

Items	Frequency	%	Dimension of training (matched by respondents)	Dimension of training (originally conceptualized)
Trainees commit to how they'll incorporate training once back at jobs	31	79.5	Accountability	Accountability
Training includes mechanism to follow-up with trainees after training concludes	28	71.8	Accountability	Accountability

rephrasing. Respondents matched nine items with the dimension of climate. Five of these were correctly matched while four were conceptualized to explain tangibles as opposed to climate. Therefore, since tangibles had zero items with an agreement index of .60, the tangible items that respondents incorrectly associated with climate were reworded, as was the definition of tangibles. Tangibles ended up with four descriptive items as did climate when the items were appropriately reallocated and one item was rephrased. With the exception of the four tangible items that the respondents matched with climate, all other items were matched with their originally concepted dimensions.

As Hinkin et al. noted of the content adequacy assessment, "if enough items are not retained then more may be generated at this stage" (1997, p. 104). This was the case for the dimension of relevance that had one item identified, and accountability that had two items correctly matched by 60% of the respondents. In both cases, items associated with each dimension that had the highest agreement indexes were reworded to more clearly support the dimensions. This resulted in four items each for relevance and accountability, or a total of 36 items for the nine dimensions of training quality. The content adequacy assessment process does not guarantee a content valid scale, but rather serves as another tool (especially helpful in exploratory research) to provide "evidence that the items represent a reasonable measure of the construct under examination." (Hinkin et al., 1997, p. 104). As a last step before proceeding to develop the questionnaire, all items were reviewed and some were slightly reworded to achieve greater clarity and/or alignment with dimensions.

Questionnaire Administration

The 36 items developed in the previous step were incorporated into a questionnaire that phrased each item in two ways: an expectation of training and a perception of what actually occurred during training. For example, the item "Training directly relates to trainee's jobs" was

expressed as an expectation ("Training should directly relate to trainees' jobs.") and as a perception ("Training directly related to my job."). Section I of the questionnaire consisted of expectations while Section II dealt with perceptions. At this point in the research, it was deemed acceptable to assess expectations and perceptions at the same time since this was a step in scale development as opposed to an actual test of the final instrument.

A third and final section of the questionnaire addressed trainees' intentions to transfer (or use) training when they returned to their jobs. Three attributes derived from an intention to transfer scale developed by Baldwin and Magjuka (1991), were used to support the construct. Since trainees' attitudes were being assessed, each item in Sections I, II, and III, was evaluated on a 5-point Likert scale (1="strongly disagree" and 5="strongly agree"). There was no reason to gather demographic information via this questionnaire.

The developed questionnaire (see Appendix C) was administered to a group of club managers who were attending training workshops at a professional conference in San Diego, California. The trainer administered the surveys at the conclusion of a day-long training session, and a drawing for ten $25.00 amazon.com gift certificates served as an incentive for the trainees to complete the questionnaires. Out of 160 managers attending, 119 questionnaires were returned and 115 of those were usable. The response rate was 74.4%.

Exploratory Factor Analysis

Regarding the adequacy of the sample size, one rule generally applied for exploratory factor analysis indicates a minimum requirement of five times as many observations as there are variables to be analyzed. However, others suggest 50 observations to be the lower boundary with a preferable sample size of 100 or more cases (Hair et al., 1995). When Parasuraman et al. (1988) were refining their 97-item instrument, they used a sample size of 200, which they

justified in terms of the sample sizes used by other scale developers in the marketing area. Therefore, a sample size of 115 with an average of 3.2 observations per item is in the acceptable range.

Because phase 2 of this research tests a hypothesis that compares a gap measurement of perceived training quality (perceptions minus expectations) to a perception only measurement of training quality, the data gathered through questionnaire administration was factor analyzed using both measurements. The results of factor analysis will first be reported for the gap measure, and then the results of the same analysis for the perception only measure will be reviewed.

Factor Analysis of Gap (Perceptions minus Expectations) Measure

Although "the critical assumptions underlying factor analysis are more conceptual than statistical " (Hair et al., 1995), the need to verify the existence of an underlying structure called for the examination of the data matrix. Through a visual inspection, it was obvious that a substantial number of correlations were greater than .30, thereby indicating an appropriateness to continue with factor analysis. At the same time, items were examined to see if any failed to correlate higher than .40 with at least one other item, thereby justifying elimination before the next run; no items were found to be in this category (SPSS, 1999).

The Bartlett test of sphericity rejected the null hypothesis that the data matrix was an identity matrix, therefore suggesting that significant correlations existed between at least some variables. Another test of the underlying structure assumption, the measure of sampling adequacy (MSA), produced a score of .642 which was interpreted as mediocre according to Hair et al. (1995). The MSA values for individual items were then reviewed and the following four items were eliminated from further analysis since their scores were in the unacceptable range of

less than .50: "trainees should be told 'why' training is important," "training should be developed by people who have done the trainees' jobs," "training should include the use of games," and "trainees should plan during training how they will use new skills/knowledge once back at work." Following the elimination of the four items, the overall MSA increased to .677.

By applying principal components analysis and orthogonal rotation (VARIMAX) to the 32 remaining items, the default on SPSS produced 11 factors with eigenvalues greater than 1.0. The 11 factor solution explained 69.33 % of the variance which is deemed to be a satisfactory solution by social science standards (Hair et al., 1995). After reviewing the initial solution, several other trial solutions were attempted using more than and less than 11 factors. "Then, on the basis of information contained in the results of several trial analyses, the factor matrices were examined and the best representation of the data was used to determine the number of factors to extract" (Hair et al., 1995, p. 377). For the gap measurement of perceived training quality, the researcher determined that nine factors produced the best representation of the data; fewer factors caused items to load together that did not make sense conceptually and more factors produced factors with only one item.

The nine factor solution's ability to explain variance dropped to 62.50 %, still in the satisfactory range. Regarding the process of examining factor loadings, Ford, MacCallum and Tait (1986) indicated that a criterion level of .40 was most frequently used to judge factor loadings as meaningful. Hair et al. (1995) addressed statistical significance of factor loadings by indicating that a sample of 115 cases requires factor scores of at least .55 in order to establish significance at the .05 level. Considering the range between meaningful and significant, items with factor loadings in the .40 to .55 range were retained if they contributed conceptually to understanding a given factorof perceived training quality. If a factor loaded less than .55 and

offered no explanatory value, then it was eliminated. Consequently, the following five items were removed from further analysis: "Training should involve active learning," "Training should convey a sense of caring to the trainees," "Written materials should be professionally prepared," "Trainees should be active participants in training," and "Training should be well-planned."

It was necessary to re-run the nine factor solution again using VARIMAX rotation, this time with the 27 remaining items. In this iteration, the MSA slipped to .634, but the variance explained by the nine factors increased to 65.66 % (see Table 6). There were no substantial changes in the composition of the factor structures. In this round, two additional items were eliminated that now had factor loadings less than .55: "Trainer should show a personal interest in the trainees" and "Trainees should learn from each other." The researcher retained one item ("Training should directly relate to trainees' jobs") with a factor score of .516 because it contributed conceptually to more fully explain a factor that was previously defined by two items (see Table 7).

In this final run of the factor analysis for the gap measurement of perceived training quality, 25 items were found to define the nine dimensions of perceived training quality. Two dimensions had four items, three dimensions had three items, and four dimensions had two items. The nine factors identified through the factor analysis process mirror the nine factors as they were derived and titled in the original qualitative phase of this research. The following nine dimensions of perceived training quality, listed in descending order of total variance explained, were identified through the gap measurement: organization, climate, accountability, courtesy, entertainment, tangibles, relevance, credibility, and interactivity.

Factor Analysis of Perception Only Measure

The first run of the factor analysis of a 36-item perception only measurement of

Table 6

Results of the Extraction of Nine Component Factors per the Gap Measurement (Perception minus Expectation) of Perceived Quality of Training (n=115)

Factors	Eigenvalues	% of variance	Cumulative % of variance
1	4.642	17.192	17.192
2	2.155	7.981	25.173
3	2.022	7.490	32.663
4	1.859	6.886	39.549
5	1.796	6.652	46.201
6	1.458	5.400	51.602
7	1.390	5.148	56.750
8	1.304	4.831	61.581
9	1.100	4.076	65.657

Table 7

VARIMAX Rotated Component Factor Matrix for the Gap Measurement (Perception minus Expectations) of Perceived Training Quality (n=115)

	VARIMAX-rotated loadings		
Variables/items	Factor 1 (Organization)	Factor 2 (Climate)	Factor 3 (Accountability)
I knew the sequence of training - trainees should be informed regarding the sequence of training	.810		
I knew how much time would be allotted to each topic during training - trainees should know how much time will be allotted to each topic	.782		
Training segments were divided by frequent short breaks - training segments should be divided by frequent short breaks	.692		
I felt safe during training - training should provide a safe environment for trainees		.772	
I felt relaxed during training - trainees should feel relaxed during training		.631	
Training environment was informal - training environment should be informal should be informal		.619	
Mood during training was supportive - mood during training should be supportive of trainees		.590	

Variables/items	VARIMAX-rotated loadings		
	Factor 3 (Accountability)	Factor 4 (Courtesy)	Factor5 (Entertainment)
I expect some follow-up to the training after I return to work - Training should be designed to follow-up with trainees after they return to work	.658		
The rewards for using acquired skills/ knowledge when back on the job were explained - Training should outline the rewards for using training on the job	.647		
Trainer was enthusiastic - Trainer should be enthusiastic	.641		
Training was fun - Training should be fun	.632		
Trainer expressed appreciation for my previous work experience - Trainer should express appreciation for the work experience of trainees		.677	
Trainer addressed me by name - Trainer should remember trainees' names		.597	
Trainer candidly related his/her work experiences - Trainer should candidly relate his/her experiences			.781
Training incorporated humor - Training should incorporate humor			.752

Variables/items	VARIMAX-rotated loadings		
	Factor 6 (Tangibles)	Factor 7 (Relevance)	Factor 8 (Credibility)
Training was conducted in a quality facility - Training should be conducted in a quality facility	.792		
Training room was geared to the physical comfort of trainees - Training room should be geared to the physical comfort of trainees	.717		
Quality food and beverage service was provided during training - Quality food and beverage service should be provided during training	.652		
Training was based upon my needs - Training should be based upon the needs of trainees		.741	
The training realistically mirrored my job - Training should realistically mirror the trainees' jobs		.737	
Training directly related to my job - Training should directly relate to trainees jobs		.516	
Trainer was knowledgeable regarding content - Trainer should be knowledgeable regarding the content			.818
Trainer was confident - Trainer should be confident			.673

Variables/items	VARIMAX-rotated loadings Factor 9 (Interactivity)
Training included small group work - Training should include small group work	.816
Training included a test to evaluate what I learned - Training should include a test of learning	.729

perceived training quality revealed an underlying factor structure that supported the continued application of factor analysis. A substantial number of correlations were greater than .30, and only one item ("Quality food and beverage service was provided during training") was removed from further analysis because its correlation with all other factors was less than .40 (SPSS, 1999). The Bartlett test of sphericity rejected the null hypothesis thereby suggesting that significant correlations exist between at least some variables. Another test of the underlying structure assumption, the measure of sampling adequacy (MSA) produced a score of .781 which was middling according to Hair et al. (1995). The MSA values for individual items were then reviewed and one item ("Training included the use of games") was eliminated from study since its score was in the unacceptable range of less than .50. Following the elimination of the two items, the overall MSA increased to .803, now in the range termed meritorious (Hair et al., 1995).

By applying principal components analysis and orthogonal rotation (VARIMAX) to the 34 remaining items, the default in SPSS produced nine factors with eigenvalues greater than 1.0. The nine factor solution explained 68.64% of the variance which is deemed to be a satisfactory solution by social science standards (Hair et al., 1995). Although several other trial solutions were attempted with both more and less than nine factors, the researcher determined that the nine factor solution was indeed the best fit for the data.

Following the same rationale previously used to eliminate items due to low factor scores, the following six items were removed from further analysis since their factor loadings were less than .55: "Trainer was enthusiastic," "Written materials were professionally prepared," "I was an active participant in training," "During training, I planned how I am going to use my new skills/knowledge when back at work," "Training was fun," and "I knew the sequence of

training." The following four items also had factor loadings less than .55, but they were retained due to their conceptual contribution to their respective dimensions as well as a concern for an adequate number of items per dimension: "Training was well planned," "I learned from the other trainees," "The rewards for using acquired skills/knowledge when back on the job were explained," and "I knew how much time would be allotted to each topic during training."

It was necessary to re-run the nine factor solution again, this time using the 28 remaining items. In this iteration, the MSA slipped to .801 (still in the meritorious range), but the variance explained by the nine factors increased to 72.58 % (see Table 8). There were no substantial changes in the factor structures (e.g. the items comprising the various factors). In this round, four additional items were eliminated that now had factor loadings less than .55 other: "Training was well-planned," "Training conveyed a sense of caring," "The rewards for using acquired skills/knowledge when back on the job were explained," and "I knew how much time would be allotted to each topic during training." All remaining items had factor loadings equal to or greater than .55 (see Table 9).

In this final run of the factor analysis for the perception only measurement, 24 items were found to define the nine dimensions of perceived training quality. One dimension had four items, five dimensions had three items, and three dimensions had two items. In descending order of variance explained, the dimensions of perceived training quality identified through a perception only measurement were climate, interactivity, courtesy1, relevance, entertainment, credibility1, tangibles, courtesy2 and credibility2. These are the same titles as were originally determined in phase 1 of this research with the exception that the credibility dimension split into

Table 8

Results of the Extraction of Nine Component Factors per the Perception Only Measurement of Perceived Quality of Training (n=115)

Factors	Eigenvalues	% of variance	Cumulative % of variance
1	8.002	28.579	28.579
2	2.579	9.210	37.789
3	2.111	7.538	45.327
4	1.530	5.463	50.790
5	1.489	5.316	56.107
6	1.408	5.030	61.136
7	1.179	4.212	65.348
8	1.065	3.803	69.151
9	.961	3.432	72.583

Table 9

VARIMAX Rotated Component Factor Matrix for the Perception Only Measurement of Perceived Training Quality (n=115)

Variables/items	VARIMAX-rotated loadings	
	Factor 1 (Climate)	Factor 2 (Interactivity)
Mood during training was supportive	.762	
Training environment was informal	.720	
I felt safe during training	.719	
I felt relaxed during training	.687	
Training involved active learning		.753
Training included small group work		.744
Training included a test to evaluate what I learned		.569

Variables/items	VARIMAX-rotated loadings		
	Factor 3 (Courtesy1)	Factor 4 (Relevance)	Factor 5 (Entertainment)
Trainer expressed a personal interest in me and the other trainees	.796		
Trainer expressed appreciation for my previous work experience	.736		
I expect some follow-up to the training after I return to work	.665		
The training realistically mirrored my job		.807	
Training directly related to my job		.653	
Training was based upon my needs		.622	
Training incorporated humor			.815
Trainer candidly related his/her work experiences			.800

Variables/items	VARIMAX-rotated loadings			
	Factor 6 (Credibility1)	Factor 7 (Tangibles)	Factor 8 (Courtesy2)	Factor 9 (Credibility2)
Training was developed by people who once did my job	.810			
I was told "why" the training was important	.647			
Training room was geared to the physical comfort of trainees		.848		
Training was conducted in a quality facility		.732		
Trainer addressed me by name			.791	
Training segments were divided by frequent short breaks			.623	
I learned from the other trainees			.549	
Trainer was knowledgeable regarding content				.884
Trainer was confident				.648

two factors (labeled credibility 1 and credibility 2), as did the courtesy dimension (labeled courtesy 1 and courtesy 2). Credibility 1 was defined as believability of the training program while Credibility 2 referred to the believability/knowledge of the trainer. Courtesy 1 focused on concern for the trainees that was reflected in the design of the training program; Courtesy 2 expressed respect for individual trainees via how they were treated by the trainer. The dimensions of organization and accountability, conceptualized during the qualitative research, were not identified through the factor analysis process.

Internal Consistency Assessment

"Cronbach's alpha is a commonly used measure of reliability for a set of two or more construct indicators" (Hair et al., 1995, p. 618). With values ranging from 0 to 1.0, the higher values indicate a higher reliability among the items. Cronbach's alpha was used in this research to assess the scale's internal consistency in terms of how well the items measured the same construct or dimension of perceived training quality (see Tables 10 and 11). Although a commonly used benchmark for acceptable reliability is .70, lower values have been deemed acceptable when the research is exploratory in nature.

Looking first at the reliability scores of the gap measurement of perceived training quality dimensions, one factor scored higher than .70, five factors range from .69 to .60, two factors are in the .59 to .50 range, and one item is below .50 (see Table 10). The overall Cronbach alpha score for all items per the gap measurement scale for perceived quality of training is high at .8197. The dimension of organization has the highest reliability score, and the dimension of courtesy has the lowest.

Table 11 indicates the reliability scores for the perception only measurement of training quality dimensions. One factor is above .80, five factors are in the .79 to .70 range, and two factors range between .69 and .60. The overall Cronbach alpha score for all items per the

Table 10

Cronbach Alpha Scores for Each of the Nine Factors/Dimensions Identified in Exploratory Factor Analysis of Perceived Quality of Training per Gap Measurement (Perceptions minus Expectations)

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Organization	I knew the sequence of training - trainees should be informed regarding the sequence of training	.7670
	I knew how much time would be allotted to each topic during training - trainees should know how much time will be allotted to each topic	
	Training segments were divided by frequent short breaks - training segments should be divided by frequent short breaks	
Climate	I felt safe during training - training should provide a safe environment for trainees	.6649
	I felt relaxed during training - trainees should feel relaxed during training	
	Training environment was informal - training environment should be informal should be informal	
	Mood during training was supportive - mood during training should be supportive of trainees	

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Accountability	I expect some follow-up to the training after I return to work - Training should be designed to follow-up with trainees after they return to work	.6408
	The rewards for using acquired skills/ knowledge when back on the job were explained - Training should outline the rewards for using training on the job	
	Trainer was enthusiastic - Trainer should be enthusiastic	
	Training was fun - Training should be fun	
Courtesy	Trainer expressed appreciation for my previous work experience - Trainer should express appreciation for the work experience of trainees	.4189
	Trainer addressed me by name - Trainer should remember trainees' names	
Entertainment	Trainer candidly related his/her work experiences - Trainer should candidly relate his/her experiences	.6867
	Training incorporated humor - Training should incorporate humor	

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Tangibles	Training was conducted in a quality facility - Training should be conducted in a quality facility	.6127
	Training room was geared to the physical comfort of trainees - Training room should be geared to the physical comfort of trainees	
	Quality food and beverage service was provided during training - Quality food and beverage service should be provided during training	
Relevance	Training was based upon my needs - Training should be based upon the needs of trainees	.5653
	The training realistically mirrored my job - Training should realistically mirror the trainees' jobs	
	Training directly related to my job - Training should directly relate to trainees jobs	
Credibility	Trainer was knowledgeable regarding content - Trainer should be knowledgeable regarding the content	.6870
	Trainer was confident - Trainer should be confident	
Interactivity	Training included small group work - Training should include small group work	.5366
	Training included a test to evaluate what I learned - Training should include a test of learning	

Table 11

Cronbach Alpha Scores for Each of the Nine Factors/Dimensions Identified in Exploratory Factor Analysis of Perceived Quality of Training per Perception Only Measurement

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Climate	Mood during training was supportive	.8183
	Training environment was informal	
	I felt safe during training	
	I felt relaxed during training	
Interactivity	Training involved active learning	.7411
	Training included small group work	
	Training included a test to evaluate what I learned	
Courtesy1	Trainer expressed a personal interest in me and the other trainees	.7831
	Trainer expressed appreciation for my previous work experience	
	I expect some follow-up to the training after I return to work	

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Relevance	The training realistically mirrored my job	.6471
	Training directly related to my job	
	Training was based upon my needs	
Entertainment	Training incorporated humor	.7591
	Trainer candidly related his/her work experiences	
Credibility1	Training was developed by people who once did my job	.6197
	I was told "why" the training was important	
Tangibles	Training room was geared to the physical comfort of trainees	.7740
	Training was conducted in a quality facility	
Courtesy2	Trainer addressed me by name	.6067
	Training segments were divided by frequent short breaks	
	I learned from the other trainees	

Factor/dimensions	Items comprising dimension	Cronbach's alphas
Credibility2	Trainer was knowledgeable regarding content	.7619
	Trainer was confident	

perception only scale for perceived quality of training is very high at .9188. The dimension with the highest reliability is climate and interactivity has the lowest reliability score.

The training quality dimension of credibility divided into two factors, each one consisting of two items each. When the four items were combined, the resulting Cronbach alpha score was .5925. Separately, the two credibility dimensions had reliability scores of .7591 and .7619. This seems to indicate that credibility, when measured by perceptions only, should be separated into two dimensions. On the other hand, when the six courtesy items (three from courtesy 1 and three from courtesy 2) were combined, the cronbach alpha was .7538. This is lower than courtesy 1 at .7831, but higher than courtesy 2 at .6067. These results indicate that perhaps the six items from the two courtesy dimensions should only be one dimension.

A reliability test was also conducted on the three items that comprise the scale to measure the construct of intention to use training (see Table 12). The Cronbach alpha score was very high at .9109.

Construct Validation

The scales developed up to this point have been tested for content validity and internal consistency (reliability). Although both of these provide a good foundation for construct validity, further testing was needed. In phase 2 of this research, the scales are compared to other measures designed to assess similar constructs. For example, the perceived quality of training scores as determined by the gap measurement (perceptions minus expectations) and/or the perception only measurement will be compared to an overall quality rating as determined by the trainees. A comparison of the correlations will further assess the construct (convergent) validity of the scales (Hinkin et al., 1997).

Table 12

Cronbach Alpha Score for Scale Items Used to Measure the Construct of Intention to Use Training

Factor/dimension	Items comprising dimension	Cronbach's alpha
Intention to Use Training	I plan to use the skills/knowledge I acquired here when back on the job	.9109
	The skills/knowledge I acquired here will be useful to me in my current role	
	The skills/knowledge I acquired here will improve my job performance	

Description of Scales Developed in Phase 1

As a result of phase 1, 25 items were retained for the scale to determine training quality via a gap measurement (perceptions minus expectations). Twenty-four items were retained for the scale determining training quality via a perception only measurement. Both scales were incorporated into one instrument that contained a total of 30 items; each item was stated as an expectation and also as a perception.

Factor analysis of the two measurements of perceived training quality resulted in 19 items that appear on both scales while 11 items listed on the final instrument apply to only one of the two scales (see Table 13). Of the 19 common items, the dimensional affiliations of 17 are identical while "Trainer addressed me by name" supported the courtesy dimension on the gap (perceptions minus expectations) measurement and the organization dimension on the perception only measurement scale. Additionally, "I expect some follow-up to the training after I return to work" supported the dimension of accountability per the gap measurement and courtesy when measured by perceptions only. Six of the original 36 items on the questionnaire administered to the club managers did not survive the factor analysis process for either measure of training quality. All three of the items pertaining to the intention to use training construct appear on the final survey that will be tested in the next phase of this research.

Phase II: Testing the Perceived Quality of Training Instrument

Descriptive Information Regarding The Sample

The fresh set of data used to test the scales developed in phase 1 of this study were gathered from six separate training sessions conducted by organizations within the hospitality industry. Table 14 describes the participating groups and indicates the number of usable surveys

Table 13

List of 30 Items on the Instrument to be Tested in Phase 2, with Dimensional Affiliations Noted (If Applicable) For Each Measure of Training Quality

Items	Dimensional affiliation per measurement	
	Gap measure of training quality	Perception only measure of training quality
Training directly related to my job	Relevance	Relevance
I was told "why" the training was important		Credibility 1
The training realistically mirrored my job	Relevance	Relevance
Training was based upon my needs	Relevance	Relevance
Trainer was knowledgeable regarding content	Credibility	Credibility 2
Training was developed by people who once did my job		Credibility 1
Trainer was confident	Credibility	Credibility 2
Trainer candidly related his/her work experiences	Entertainment	Entertainment
Training incorporated humor	Entertainment	Entertainment
Training was fun	Accountability	
Trainer was enthusiastic	Accountability	
Training involved active learning		Interactivity
I learned from the other trainees		Organization
Training included small group work	Interactivity	Interactivity
Quality food and beverage service was provided during training	Tangibles	
Training was conducted in a quality facility	Tangibles	Tangibles

Items	Dimensional affiliation per measurement	
	Gap measure of training quality	Perception only measure of training quality
Training room was geared to the physical comfort of trainees	Tangibles	Tangibles
I knew how much time would be allotted to each topic during training	Organization	
Training segments were divided by frequent short breaks	Organization	Organization
I knew the sequence of training	Organization	
I felt relaxed during training	Climate	Climate
Training environment was informal	Climate	Climate
Mood during training was supportive	Climate	Climate
I felt safe (e.g. free from criticism) during training	Climate	Climate
Trainer addressed me by name	Courtesy	Organization
Trainer expressed a personal interest in me and the other trainees		Courtesy
Trainer expressed appreciation for my previous work experience	Courtesy	Courtesy
I expect some follow-up to the training after I return to work	Accountability	Courtesy
The rewards for using acquired skills/ knowledge when back on the job were explained	Accountability	
Training included a test to evaluate what I learned	Interactivity	Interactivity

Table 14

Training Sessions at Which the Perceived Training Quality Instrument was Administered to Test the Scales Developed in Phase 1

Groups	Type of Organization	Topic	Number of trainees enrolled	Number of pre-training surveys returned	Number of post-training surveys returned	Number of usable surveys
1	Food service company	Leadership Skills	29	29	28	28
2	Industry association	Management Skills	41	41	40	40
3	Hotel company	Supervisory Skills	24	24	24	24
4	Food service company	Leadership Skills	26	26	26	24
5	Professional training organization	Selling Skills	24	24	24	23
6	Food service company	Leadership Skills	28	28	28	25
Totals			172	172	170	164

collected from each training session. Four training sessions were sponsored by hospitality companies for their respective employees while one training session was hosted by an industry association; the other session was offered by a professional hospitality training organization. Groups 1, 4, and 6 were conducted by the same hospitality company although facilitated in different cities by different trainers. The trainers from each session asked all of their attendees to complete the pre-training and post-training surveys.

Each trainer reported 100% participation although family emergencies caused one trainee to leave the Group 1 session early; one trainee also left the Group 2 training class early. Since these trainees were unable to fill-out the post-training questionnaires, their pre-training questionnaires were discarded. Also, two questionnaires from Group 4, one questionnaire from Group 5, and three questionnaires from Group 6 were unable to be matched (pre-training to post-training) since the code names did not correspond. The questionnaires received from the Group 3 session matched exactly and all were used.

The response rate was 100% of the 172 total trainees who began the six training sessions; 95.4% of the trainees completed the training and/or returned pre-training and post-training surveys that could be matched. A final sample size of 164 was used to test the perceived training quality instrument.

Table 15 profiles the 164 trainees based upon their responses to nine questions in the personal information section of the pre-training questionnaire. The majority of respondents were male (64%) with 41% being in the 36 to 45 years old age bracket. Thirty-two percent had been with their respective companies three to six years and 27% had been in their current positions more than one but less than three years. The greatest percentage of respondents, 43%, indicated they had two jobs in the past five years and 37% said they attended more than five training

Table 15

Trainees Responses to Personal Information Questions (n=164)

Characteristics	Percentage of respondents	Frequency
Gender		
Female	35.6	57
Male	64.4	103
Age		
18 to 25 years	9.4	15
26 to 35 years	35.0	56
36 to 45 years	41.3	66
46 to 55 years	11.9	19
56 years or older	2.5	4
Time with current company		
Less than 6 months	4.4	7
6 months to 1 year	16.9	27
More than 1 but less than 3 years	23.1	37
3 to 6 years	31.9	51
More than 6 but less than 10 years	9.4	15
10 or more years	14.4	23
Time in current position		
Less than 6 months	10.6	17
6 months to 1 year	20.0	32
More than 1 but less than 3 years	26.9	43
3 to 6 years	25.6	41
More than 6 but less than 10 years	8.1	13
10 or more years	8.8	14

Characteristics	Percentage of respondents	Frequency
Number of jobs held in past five years		
1 job	34.0	54
2 jobs	42.8	68
3 jobs	17.6	28
4 jobs	2.5	4
5 jobs	1.9	3
more than 5 jobs	1.3	2
Number of instructor-led training sessions attended in the past five years		
Only the current session	11.3	18
2 training sessions	15.6	25
3 training sessions	13.8	22
4 training sessions	15.6	25
5 training sessions	6.9	11
more than 5 training sessions	36.9	59
Satisfaction in current position		
Very dissatisfied	10.0	16
Somewhat dissatisfied	7.5	12
Neither satisfied nor dissatisfied	3.8	6
Somewhat satisfied	41.9	67
Very satisfied	36.9	59
Likelihood of leaving current position within next three months		
Very unlikely	60.0	96
Somewhat unlikely	11.3	18
Neither unlikely nor likely	8.8	14
Somewhat likely	13.1	21
Very likely	6.9	11
Required or elective attendance at training		
I was required to attend training	36.7	58
I elected to attend this training	63.3	100

sessions in the past five years. Overall, this group of 164 trainees was fairly happy in their jobs: forty-two percent said they were satisfied and 37% indicated they were very satisfied. Only 10% of the trainees reported that they were very dissatisfied. Not surprisingly, the majority of respondents (60%) said they were very unlikely to leave their current positions within the next three months. The majority of respondents (63%) elected to attend the training sessions.

Tables 16 through 24 look at the responses to each of the personal information questions as a function of group membership. Group 5 has the largest percentage of women of the six groups with 56.5% women and 43.5% men. On the other hand, Group 2 only had 20% women, the lowest percentage. Group 5 had the largest group of young trainees with 57% under 35 years of age. Only two groups (3 and 4) had attendees over 56 years of age.

The Group 3 training session had the largest percentage (23%) of trainees who had been with the company six months to one year, and Group 6 had the greatest percentage (27%) of trainees who had been with their current company for 10 or more years. Thirty-six percent of the trainees in Group 3 had been in their current positions less than six months while on the other end of the spectrum, 14% of Group 6 had been in their current positions ten or more years. Forty-eight percent of Group 6 had only one job in the last five years; between four and five percent of the trainees in Groups 5 and 6 had more than five jobs in the past five years. Each training group with the exception of Group 1 had the greatest percentage of its trainees report that they had attended more than five instructor-led training sessions in the past five years.

Regarding trainees' satisfaction in their current positions, 36% of Group 6 said that they were either somewhat dissatisfied or very dissatisfied; 87% of Group 5 indicated they were either somewhat satisfied or very satisfied. The highest percentage of respondents in each of the six groups reported that it was very unlikely that they would leave their current positions within the

Table 16

Individual Group Responses to Personal Information Question, "What is Your Gender?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	Female	32.1	9
	Male	67.9	19
2	Female	20.0	8
	Male	80.0	32
3	Female	40.9	9
	Male	59.1	13
4	Female	40.0	10
	Male	60.0	15
5	Female	56.5	13
	Male	43.5	10
6	Female	36.4	8
	Male	63.6	14

Table 17

Individual Group Responses to Personal Information Question, "What is Your Age?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	18 to 25 years	17.9	5
	26 to 35 years	35.7	10
	36 to 45 years	39.3	11
	46 to 55 years	7.1	2
2	26 to 35 years	35.0	14
	36 to 45 years	55.0	22
	46 to 55 years	10.0	4
3	18 to 25 years	22.7	5
	26 to 35 years	31.8	7
	36 to 45 years	31.8	7
	46 to 55 years	4.5	1
	56 years or older	9.1	2
4	18 to 25 years	4.0	1
	26 to 35 years	20.0	5
	36 to 45 years	44.0	11
	46 to 55 years	24.0	6
	56 years or older	8.0	2
5	18 to 25 years	17.4	4
	26 to 35 years	39.1	9
	36 to 45 years	30.4	7
	46 to 55 years	13.0	3
6	26 to 35 years	50.0	11
	36 to 45 years	36.4	8
	46 to 55 years	13.6	3

Table 18

Individual Group Responses to Personal Information Question, "How Long Have You Been With Your Current Company?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	Less than 6 months	7.1	2
	6 months to 1 year	28.6	8
	More than 1 but less than 3 years	17.9	5
	3 to 6 years	28.6	8
	More than 6 but less than 10 years	10.7	3
	10 or more years	7.1	2
2	6 months to 1 year	12.5	5
	More than 1 but less than 3 years	22.5	9
	3 to 6 years	42.5	17
	More than 6 but less than 10 years	10.0	4
	10 or more years	12.5	5
3	6 months to 1 year	22.7	5
	More than 1 but less than 3 years	31.8	7
	3 to 6 years	13.6	3
	More than 6 but less than 10 years	18.2	4
	10 or more years	13.6	3

Group	Characteristic	Percentage of respondents	Frequency
4	6 months to 1 year	12.0	3
	More than 1 but less than 3 years	24.0	6
	3 to 6 years	44.0	11
	More than 6 but less than 10 years	4.0	1
	10 or more years	16.0	4
5	Less than 6 months	17.4	4
	6 months to 1 year	13.0	3
	More than 1 but less than 3 years	21.7	5
	3 to 6 years	21.7	5
	More than 6 but less than 10 years	13.0	3
	10 or more years	13.0	3
6	Less than 6 months	4.5	1
	6 months to 1 year	13.6	3
	More than 1 but less than 3 years	22.7	5
	3 to 6 years	31.8	7
	10 or more years	27.3	6

Table 19

Individual Group Responses to Personal Information Question, "How Long Have You Been In Your Current Position?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	Less than 6 months	10.7	3
	6 months to 1 year	32.1	9
	More than 1 but less than 3 years	28.6	8
	3 to 6 years	14.3	4
	more than 6 but less than 10 years	7.1	2
	10 or more years	7.1	2
2	6 months to 1 year	12.5	5
	More than 1 but less than 3 years	25.0	10
	3 to 6 years	45.0	18
	more than 6 but less than 10 years	7.5	3
	10 or more years	10.0	4
3	Less than 6 months	36.4	8
	6 months to 1 year	13.6	3
	More than 1 but less than 3 years	13.6	3
	3 to 6 years	13.6	3
	more than 6 but less than 10 years	18.2	4
	10 or more years	4.5	1

Groups	Characteristic	Percentage of respondents	Frequency
4	Less than 6 months	8.0	2
	6 months to 1 year	32.0	8
	More than 1 but less than 3 years	24.0	6
	3 to 6 years	24.0	6
	more than 6 but less than 10 years	4.0	1
	10 or more years	8.0	2
5	Less than 6 months	13.0	3
	6 months to 1 year	17.4	4
	More than 1 but less than 3 years	26.1	6
	3 to 6 years	26.1	6
	more than 6 but less than 10 years	8.7	2
	10 or more years	8.7	2
6	Less than 6 months	4.5	1
	6 months to 1 year	13.6	3
	More than 1 but less than 3 years	45.5	10
	3 to 6 years	18.2	4
	more than 6 but less than 10 years	4.5	1
	10 or more years	13.6	3

Table 20

Individual Group Responses to Personal Information Question, "How Many Jobs Have You Held In The Past Five Years?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	1 job	35.7	10
	2 jobs	46.4	13
	3 jobs	14.3	4
	4 jobs	3.6	1
2	1 job	35.0	14
	2 jobs	45.0	18
	3 jobs	12.5	5
	4 jobs	7.5	3
3	1 job	27.3	6
	2 jobs	36.4	8
	3 jobs	36.4	8
4	1 job	32.0	8
	2 jobs	52.0	13
	3 jobs	16.0	4
5	1 job	26.1	6
	2 jobs	39.1	9
	3 jobs	26.1	6
	5 jobs	4.3	1
	more than 5 jobs	4.3	1
6	1 job	47.6	10
	2 jobs	33.3	7
	3 jobs	4.8	1
	5 jobs	9.5	2
	more than 5 jobs	4.8	1

Table 21

Individual Group Responses to Personal Information Question, "How Many Instructor-led Training Sessions Have You Attended In The Past Five Years?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	Only the current session	21.4	6
	2 training sessions	28.6	8
	3 training sessions	17.9	5
	4 training sessions	10.7	3
	5 training sessions	10.7	3
	More than 5 sessions	10.7	3
2	Only the current session	2.5	1
	2 training sessions	12.5	5
	3 training sessions	5.0	2
	4 training sessions	22.5	9
	5 training sessions	5.0	2
	More than 5 sessions	52.5	21
3	Only the current session	22.7	5
	2 training sessions	9.1	2
	3 training sessions	18.2	4
	4 training sessions	4.5	1
	More than 5 sessions	45.5	10
4	Only the current session	12.0	3
	2 training sessions	20.0	5
	3 training sessions	12.0	3
	4 training sessions	20.0	5
	5 training sessions	12.0	3
	More than 5 sessions	24.0	6
5	2 training sessions	4.3	1
	3 training sessions	26.1	6
	4 training sessions	17.4	4
	5 training sessions	13.0	3
	More than 5 sessions	39.1	9

Groups	Characteristic	Percentage of respondents	Frequency
6	Only the current session	13.6	3
	2 training sessions	18.2	4
	3 training sessions	9.1	2
	4 training sessions	13.6	3
	More than 5 sessions	45.5	10

Table 22

Individual Group Responses to Personal Information Question, "How Satisfied Are You In Your Current Position?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	Very dissatisfied	7.1	2
	Somewhat dissatisfied	7.1	2
	Somewhat satisfied	50.0	14
	Very satisfied	35.7	10
2	Very dissatisfied	15.0	6
	Somewhat satisfied	40.0	16
	Very satisfied	45.0	18
3	Very dissatisfied	4.5	1
	Somewhat dissatisfied	4.5	1
	Neither dis/satisfied	18.2	4
	Somewhat satisfied	27.3	6
	Very satisfied	45.5	10
4	Very dissatisfied	8.0	2
	Somewhat dissatisfied	12.0	3
	Neither dis/satisfied	4.0	1
	Somewhat satisfied	32.0	8
	Very satisfied	44.0	11
5	Very dissatisfied	8.7	2
	Somewhat dissatisfied	4.3	1
	Somewhat satisfied	56.5	13
	Very satisfied	30.4	7
6	Very dissatisfied	13.6	3
	Somewhat dissatisfied	22.7	5
	Neither dis/satisfied	4.5	1
	Somewhat satisfied	45.5	10
	Very satisfied	13.6	3

Table 23

Individual Group Responses to Personal Information Question, "How Likely Is It That You Will Leave Your Current Position Within The Next Three Months?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	Very unlikely	67.9	19
	Somewhat unlikely	7.1	2
	Neither un/likely	7.1	2
	Somewhat likely	7.1	2
	Very likely	10.7	3
2	Very unlikely	80.0	32
	Somewhat unlikely	7.5	3
	Neither un/likely	7.5	3
	Somewhat likely	5.0	2
3	Very unlikely	36.4	8
	Somewhat unlikely	18.2	4
	Neither un/likely	9.1	2
	Somewhat likely	22.7	5
	Very likely	13.6	3
4	Very unlikely	52.0	13
	Somewhat unlikely	16.0	4
	Neither un/likely	4.0	1
	Somewhat likely	20.0	5
	Very likely	8.0	2
5	Very unlikely	60.9	14
	Somewhat unlikely	8.7	2
	Neither un/likely	13.0	3
	Somewhat likely	13.0	3
	Very likely	4.3	1
6	Very unlikely	45.5	10
	Somewhat unlikely	13.6	3
	Neither un/likely	13.6	3
	Somewhat likely	18.2	4
	Very likely	9.1	2

Table 24

Individual Group Responses to Personal Information Question, "Which Of The Following Best Applies to Your Attendance at This Training Session?" (n=164)

Groups	Characteristic	Percentage of respondents	Frequency
1	I was required to attend this training session	46.4	13
	I elected to attend this training session	53.6	15
2	I was required to attend this training session	7.5	3
	I elected to attend this training session	92.5	37
3	I was required to attend this training session	45.0	9
	I elected to attend this training session	55.0	11
4	I was required to attend this training session	72.0	18
	I elected to attend this training session	28.0	7
5	I was required to attend this training session	8.7	2
	I elected to attend this training session	91.3	21
6	I was required to attend this training session	59.1	13
	I elected to attend this training session	40.9	9

next three months. Group 3, however, had the lowest percent of trainees (compared to other groups) fall into the very unlikely to leave category and the greatest percentage (14%) say that it was very likely that they would make a position change. For four of the six training sessions, the majority of attendees elected to attend the training; the majority of attendees in Groups 4 and 6 reported that their attendance was required at the training session.

Due to the convenience sampling techniques and the ordinal nature of the data gathered in the personal information section of the questionnaire, the non-parametric Kruskal-Wallis test for independent samples was used to compare the six groups of trainees. The null hypothesis was that the population of each group equaled the population of every other group (Zikmund, 1997). Table 25 illustrates the results of the Kruskal-Wallis test, showing that significant differences existed between the groups of trainees in the areas of age, length of time in current position, number of instructor-led training sessions attended in the last year, satisfaction level with current position, and whether or not the training was required or elective on the part of the trainee. While it is important to identify the similarities and differences between the six groups of trainees, the differences primarily serve to insure that the instrument being tested will be generally applicable.

Descriptive Information Regarding Scale Items

The two-part survey instrument incorporated the 30 scale items developed in phase 1 of the study; each item was stated as an expectation on the pre-training questionnaire and as a perception on the post-training questionnaire. Table 26 reflects trainees' responses to the 30 items as expectations of training while Table 27 states the same 30 items in a perception of training format. Table 28 provides descriptive information regarding the gap scores (perceptions of training minus expectations of training) for each of the 30 items. Trainees

Table 25

Results of the Kruskal-Wallis Test For Comparisons Of The Populations Of The Six Training Sessions (Based On The Nine Personal Information Factors)

Characteristics	Chi-Square	df	Asymp. Sig.
What is your gender?	9.209	5	.101
What is your age?	12.541	5	.028
How long have you been with your current company?	4.760	5	.446
How long have you been in your current position?	11.491	5	.042
How many jobs have you held in the past five years?	3.862	5	.569
How many instructor-led training sessions have you attended in the past five years?	19.008	5	.0002
How satisfied are you in your current position?	8.305	5	.140
How likely is it that you will leave your current position within the next three months?	15.741	5	.008
Which of the following best applies to your attendance at this training session?	42.065	5	.000

Table 26

Descriptive Information Regarding 30 Scale Items in Pre-training Survey Stated as Expectations of Training (n=164)

Items	Means	Standard deviations
Trainer should be knowledgeable regarding the content	4.73	.57
Trainer should be enthusiastic	4.55	.61
Training should involve active learning	4.53	.58
Trainer should be confident	4.52	.74
Training should be fun	4.41	.70
Trainees should learn from each other	4.34	.71
Training should incorporate humor	4.31	.66
Trainees should feel relaxed during training	4.30	.59
Training should provide a safe environment for the trainee	4.26	.83
Training should be conducted in a quality facility	4.24	.69
Mood during training should be supportive of trainees	4.24	.64
Training room should be geared to the physical comfort of the trainees	4.17	.67
Trainees should be told "why" training is important	4.16	.84
Quality food and beverage service should be provided during training	4.13	.82
Trainer should candidly relate his/her work experiences	4.10	.77

Items	Means	Standard deviations
Training should be developed by people who have done the trainees' jobs	4.10	.92
Trainees should be informed regarding the sequence of training	4.05	.59
Training should outline the rewards for using training on the job	4.05	.63
Training should be based upon the needs of trainees	4.02	.82
Trainer should express appreciation for the work experience of trainees	3.99	.63
Training segments should be divided by frequent short breaks	3.98	.78
Training should include small group work	3.96	.76
Training environment should be informal	3.87	.87
Training should be designed to follow-up with trainees after they return to work	3.87	.82
Trainer should show a personal interest in the trainees	3.83	.87
Trainer should remember trainees names	3.83	.83
Training should realistically mirror the trainees' jobs	3.80	.92
Training should include a test of learning	3.76	.87
Trainees should know how much time will be allotted to each topic	3.76	.74
Training should directly relate to trainees' jobs	3.71	1.08

Note. 1=strongly disagree and 5=strongly agree

Table 27

Descriptive Information Regarding 30 Scale Items in the Post-training Survey Stated as Perceptions of Training (n=164)

Items	Means	Standard deviations
Trainer was knowledgeable regarding content	4.58	.58
Trainer was confident	4.52	.64
Training involved active learning	4.51	.59
Training directly related to my job	4.49	.69
Trainer was enthusiastic	4.45	.73
Mood during training was supportive	4.44	.59
I felt safe during training	4.41	.72
Training was fun	4.37	.72
Training incorporated humor	4.35	.83
Training included small group work	4.33	.99
I felt relaxed during training	4.33	.59
Trainer addressed me by name	4.32	.93
Trainer candidly related his/her work experiences	4.29	.90
Training was conducted in a quality facility	4.29	.77
Training environment was informal	4.29	.71
I learned from the other trainees	4.27	.83
I was told "why" training was important	4.21	.74

Items	Means	Standard deviations
The reward for using acquired skills/ knowledge when back on the job were explained	4.20	.66
Trainer expressed a personal interest in me and the other trainees	4.20	.84
I knew the sequence of training	4.18	.75
Training room was geared to the physical comfort of trainees	4.10	.76
The training realistically mirrored my job	4.09	.74
Training was based upon my needs	4.08	.82
Quality food and beverage service was provided during training	4.04	.92
Training segments were divided by frequent short breaks	4.02	.81
Trainer expressed appreciation for my previous work experience	3.80	.88
Training included a test to evaluate what I leaned	3.69	1.13
I knew how much time would be allotted to each topic during training	3.68	1.04
I expect some follow-up to the training after I return to work	3.67	.95
Training was developed by people who once did my job	3.52	.97

Note. 1=strongly disagree and 5=strongly agree

Table 28

Descriptive Information Concerning the Gap Scores (Perceptions minus Expectations) of the 30 Scale Items (n=164)

Items	Means of the gap scores	Standard deviations
Training directly related to my job - Training should directly relate to trainee's jobs	.77	1.17
Trainer addressed me by name - Trainer should remember trainees names	.49	1.17
Training environment was informal - Training environment should be informal	.41	.94
Training included small group work - Training should include small group work	.37	1.14
Trainer expressed a personal interest in me and the other trainees - Trainer should show a personal interest in the trainees	.37	1.05
The training realistically mirrored my job - Training should realistically mirror the trainees' jobs	.28	1.09
Trainer candidly related his/her work experiences - Trainer should candidly relate his/her work experiences	.21	1.02
Mood during training was supportive - Mood during training should be supportive of trainees	.20	.78
I felt safe during training - Training should provide a safe environment for trainees	.16	1.07
The rewards for using acquired skills/ knowledge when back on the job were explained - Training should outline the rewards for using training on the job	.15	.84

Items	Means of the gap scores	Standard deviations
I knew the sequence of training - Trainees should be informed regarding the sequence of training	.13	.87
Training was based upon my needs - Training should be based upon the needs of trainees	.0552	1.00
Training segments were divided by frequent short breaks - Training segments should be divided by frequent short breaks	.0491	1.10
I was told "why" training was important - Trainees should be told "why" training is important	.0488	1.10
Training was conducted in a quality facility - Training should be conducted in a quality facility	.0429	.96
Training incorporated humor - Training should incorporate humor	.0427	.94
I felt relaxed during training - Trainees should feel relaxed during training	.0245	.83
Trainer was confident - Trainer should be confident	-.0061	.79
Training involved active learning - Training should involve active learning	- .0247	.73
Training was fun - Training should be fun	-.0427	.88
Training room was geared to the physical comfort of trainees - Training room should be geared to the physical comfort of trainees	-.0675	.87

Items	Means of the gap scores	Standard deviations
I knew how much time would be allotted to each topic during traiing - Trainees should know how much time will be allotted to each topic	-.0732	1.15
I learned from the other trainees - Trainees should learn from each other	-.0741	.96
Training included a test to evaluate what I learned - Training should include a test of learning	-.0812	1.21
Trainer was enthusiastic - Trainer should be enthusiastic	-.0982	.86
Quality food and beverage service was provided during training - Quality food and beverage service should be provided during training	-.0988	1.24
Trainer was knowledgeable regarding content - trainer should be knowledgeable regarding content	-.15	.75
Trainer expressed appreciation for my previous work experience - Trainer should express appreciation for the work experience of trainees	-.19	.93
I expect some follow-up to the training after I return to work - Training should be designed to follow-up with trainees after they return to work	-.20	1.00
Training was developed by people who once did my job - Training should be developed by people who have done the trainees' jobs	-.58	1.28

Note. 1=strongly disagree and 5=strongly agree

indicated their attitudes toward each item on a five-point Likert scale (1=strongly disagree and 5=strongly agree). All items were positively stated per the recommendation of Parasuraman et al. (1991). Each table lists the items, corresponding means in descending order, and standard deviations.

Of the 30 items, trainees' expectations were higher than perceptions on 12 items; expectations were lower than perceptions on 17 items; and expectations equaled perceptions on one item. For both expectations and perceptions, the two items with the highest means related to the knowledge, enthusiasm, and/or confidence of the trainer. Regarding the gap measurement, a score of zero indicates that perceptions of training equaled expectations of training. A positive score means perceptions exceeded expectations and a negative gap score indicates that expectations were not met by perceptions. The mean gap score for the item dealing with the confidence level of trainers came closest to equaling zero. The training sessions most highly exceeded trainees' expectations in the area of how well the training related to their jobs; perceptions fell the farthest below trainees' expectations on the item "Training should be developed by people who once did my job."

Table 29 provides descriptive information regarding the means and standard deviations of respondents' attitudes toward three questions involving usefulness of training. Again, a five-point Likert scale was used (1=strongly disagree and 5=strongly agree), and respondents indicated their positive intentions to apply training with means ranging from 4.58 to 4.63. Concerning the one global measurement question regarding trainees' perceptions of overall training quality, the mean was 8.83 on a 1 to 10 scale (1=poor and 10=excellent) with a standard deviation of 1.08.

Table 29

Descriptive Information Regarding Three Scale Items Pertaining to Usefulness of Training (n=164)

Items	Means	Standard deviations
I plan to use the skills/knowledge I acquired here when back on the job	4.63	.52
The skills/knowledge I acquired here will be useful to me in my current role	4.62	.57
The skills/knowledge I acquired here will improve my job performance	4.58	.67

Note. 1=strongly disagree and 5=strongly agree

Replication of Exploratory Factor Analysis for Scales Developed in Phase 1

The scales developed per the purification process in phase 1 were incorporated into the instrument administered to the new sample of 164 hospitality industry trainees. Given that the gap measurement scale consisted of 25 items, the cases to item ratio was 6.6. The perception only measurement consisted of 24 items and the ratio for that scale was 6.8 cases per item. Prior to evaluating Proposition 1 and testing Hypotheses 1 and 2, factor analysis was repeated for both measurement scales to verify and further refine the dimensionalities identified in phase 1.

Factor Analysis of the Gap (Perceptions minus Expectations) Measurement

The 25 items found to define the nine dimensions of the gap measurement of perceived training quality were extracted from the questionnaire scales and factor analyzed using the same process as in phase 1: principle component analysis using VARIMAX orthogonal rotation.

Upon examination of the first factor analysis of the gap scores, one item ("Training should directly relate to trainees' jobs") had an individual MSA score less than .50 and therefore it was eliminated and the analysis was re-run. The factor analysis then identified seven factors/ dimensions of perceived training quality with eigenvalues greater than one. With a sample size of 164, factors are deemed statistically significant if their scores were equal to or greater than .45 (Hair et al., 1995). Although all of the loadings were above .45, the two items with the lowest scores ("Trainer should remember trainees' names" and "Trainer should express appreciation for the work experience of trainees") were eliminated in an effort to even out the number of items per dimension; also, they did not contribute conceptually to their respective dimensions.

The next iteration of the factor analysis again yielded seven dimensions with eigenvalues greater than one (see Table 30). Although trials of more than and less than seven factors were attempted, the original solution did the best job of representing the data. The MSA was .769,

Table 30

Results of the Extraction of Seven Component Factors per the Gap Measurement (Perception minus Expectation) of Perceived Quality of Training (n=164)

Factors	Eigenvalues	% of variance	Cumulative % of variance
1	5.037	22.897	22.897
2	2.395	10.885	33.782
3	1.790	8.136	41.918
4	1.441	6.549	48.467
5	1.241	5.639	54.105
6	1.192	5.420	59.526
7	1.005	4.569	64.094

Bartlett's test of sphericity rejected the null hypothesis that the data matrix was an identity matrix, and the seven factor solution explained 64.1% of the total variance. Twenty-two items in total defined the gap measurement of perceived training quality with one dimension having two items, four dimensions having three items, and two dimensions having four items (see Table 31). The following dimensions, in descending order of variance explained, were identified through this replication of the factor analysis of the gap measurement of perceived training quality: climate, entertainment, organization, interactivity, tangibles, accountability, and relevance. Two of the dimensions identified through the gap measurement in phase 1, credibility and courtesy, failed to appear in this iteration of factor analysis. The items comprising credibility were eliminated due to low factor scores; courtesy items collapsed into other factors that seemed to make more sense conceptually.

The reliabilities of the construct indicators for each dimension were tested using Cronbach's alpha. Table 32 indicates that four dimensions had scores greater than .70; two scores were between .60 and .69; only one dimension had a reliability score less than .50. The overall reliability for the seven dimensions comprising the gap measurement of perceived training quality was .8492.

Factor Analysis of the Perception Only Measurement

Twenty-four items representing the nine dimensions of the perception only measurement of perceived training quality (as determined in phase 1) were factor analyzed using principle component analysis and VARIMAX orthogonal rotation. The first factor analysis of the perception only scores produced six factors/dimensions of perceived training quality with eigenvalues greater than one. The researcher experimented with different numbers of factors, but the original fit seemed to provide the best representation of the data. Although all of the

Table 31

VARIMAX Rotated Component Factor Matrix for the Gap Measurement (Perception minus Expectations) of Perceived Training Quality (n=164)

	VARIMAX-rotated loadings	
Variables/items	Factor 1 (Climate)	Factor 2 (Entertainment)
I felt relaxed during training - Trainees should feel relaxed during training	.747	
Training environment was informal - Training environment should be informal	.719	
Mood during training was supportive - Mood during training should be supportive of trainees	.671	
I felt safe during training - Training should provide a safe environment for trainees	.553	
Trainer was enthusiastic - Trainer should be enthusiastic		.744
Training was fun - Training should be fun		.736
Trainer was confident - Trainer should be confident		.687

Variables/items	VARIMAX-rotated loadings		
	Factor 3 (Organization)	Factor 4 (Interactivitry)	Factor 5 (Tangibles)
I knew how much time would be allotted to each topic during training - Trainees should know how much time will be allotted to each topic	.725		
Training segments were divided by frequent short breaks - Training segments should be divided by frequent short breaks	.658		
Training room was geared to the physical comfort of trainees - Training room should be geared to the physical comfort of trainees	.590		
I knew the sequence of training - Trainees should be informed regarding the sequence of training	.463		
Training included small group work - Training should include small group work		.796	
Trainer candidly related his/her work experiences - Trainer should candidly relate his/her work experiences		.732	
Training incorporated humor - Training should incorporate humor		.617	
Quality food and beverage service was provided during training - Quality food and beverage service should be provided during training			.855
Training was conducted in a quality facility - Training should be conducted in a quality facility			.835

Variables/items	VARIMAX-rotated loadings	
	Factor 6 (Accountability)	Factor 7 (Relevance)
I expect some follow-up to the training after I return to work - Training should be designed to follow-up with trainees after they return to work	.811	
Training included a test to evaluate what I learned - Training should include a test of learning	.743	
The rewards for using acquired skills/ knowledge when back on the job were explained - Training should outline the rewards for using training on the job	.580	
Training was based upon my needs - Training should be based upon the needs of trainees		.637
Trainer was knowledgeable regarding content - Trainer should be knowledgeable regarding the content		.616
The training realistically mirrored my job - Training should realistically mirror the trainees' jobs		.579

Table 32

Cronbach Alpha Scores for Each of the Seven Factors/Dimensions Identified in Exploratory Factor Analysis of Perceived Quality of Training per Gap Measurement of Trainees Perceptions minus Expectations

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Climate	I felt relaxed during training - Trainees should feel relaxed during training	.7058
	Training environment was informal - Training environment should be informal	
	Mood during training was supportive - Mood during training should be supportive of trainees	
	I felt safe during training - Training should provide a safe environment for trainees	
Entertainment	Trainer was enthusiastic - Trainer should be enthusiastic	.7357
	Training was fun - Training should be fun	
	Trainer was confident - Trainer should be confident	

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Organization	I knew how much time would be allotted to each topic during training - Trainees should know how much time will be allotted to each topic	.6333
	Training segments were divided by frequent short breaks - Training segments should be divided by frequent short breaks	
	Training room was geared to the physical comfort of trainees - Training room should be geared to the physical comfort of trainees	
	I knew the sequence of training - Trainees should be informed regarding the sequence of training	
Interactivity	Training included small group work - Training should include small group work	.7422
	Trainer candidly related his/her work experiences - Trainer should candidly relate his/her work experiences	
	Training incorporated humor - Training should incorporate humor	
Tangibles	Quality food and beverage service was provided during training - Quality food and beverage service should be provided during training	.7574
	Training was conducted in a quality facility - Training should be conducted in a quality facility	

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Accountability	I expect some follow-up to the training after I return to work - Training should be designed to follow-up with trainees after they return to work	.6013
	Training included a test to evaluate what I learned - Training should include a test of learning	
	The rewards for using acquired skills/ knowledge when back on the job were explained - Training should outline the rewards for using training on the job	
Relevance	Training was based upon my needs - Training should be based upon the needs of trainees	.4768
	Trainer was knowledgeable regarding content - Trainer should be knowledgeable regarding the content	
	The training realistically mirrored my job - Training should realistically mirror the trainees' jobs	

factor loading scores were greater than .45, two items with the lowest scores ("Training involved active learning" and "Trainer addressed me by name") were eliminated in an effort to equalize the number of items per dimension. Also, the two items did not enhance the conceptual understanding of their respective dimensions.

Following the removal of the two items, the factor analysis was re-run. The new results identified six factors that explained 63.9% of the variance, Bartlett's test of sphericity rejected the null hypothesis that the data matrix was an identity matrix, and the MSA score was .809 (see Table 33). A total of 22 items comprised the perception only scale of perceived training quality; three dimensions have four items each while two dimensions were represented by three items each. The following dimensions, in descending order of variance explained, are represented in Table 34: interactivity, climate, courtesy, relevance, tangibles, and credibility. The dimension of entertainment from phase 1 factor analysis was absorbed into interactivity. All of the items from courtesy 1 (in phase 1) remained to form the new courtesy dimension, and the items from courtesy 2 were either eliminated due to low factor scores or absorbed into other dimensions. Similarly, concerning the dual credibility dimensions identified in phase 1, two items from credibility 1 and one item from credibility 2 formed the new credibility dimension; the other item from credibility 1 was absorbed into a more conceptually consistent dimension. As in phase 1, the dimensions of accountability and entertainment, while appearing in the gap framework of perceived training, do not appear within the perception only framework of perceived training quality.

The reliabilities of the items comprising each dimension were evaluated using Cronbach's alpha. Table 35 indicates that one dimension had a score greater than .80; three dimensions were

Table 33

Results of the Extraction of Six Component Factors per the Perception Only Measurement of Perceived Quality of Training (n=164)

Factors	Eigenvalues	% of variance	Cumulative % of variance
1	6.482	29.465	29.465
2	2.045	9.295	38.761
3	1.657	7.534	46.294
4	1.529	6.952	53.246
5	1.213	5.515	58.761
6	1.133	5.152	63.913

Table 34

VARIMAX Rotated Component Factor Matrix for the Perception Only Measurement of Perceived Training Quality (n=164)

	VARIMAX-rotated loadings	
Variables/items	Factor 1 (Interactivity)	Factor 2 (Climate)
Training included small group work	.769	
Training incorporated humor	.715	
Trainer candidly related his/her work experiences	.712	
I learned from the other trainees	.701	
Mood during training was supportive		.744
Training environment was informal		.709
I felt relaxed during training		.703
I felt safe during training		.691

Variables/items	VARIMAX-rotated loadings	
	Factor 3 (Courtesy)	Factor 4 (Relevance)
I expect some follow-up to the training after I return to work	.706	
Trainer expressed appreciation for my previous work experience	.691	
Traiing included a test to evaluate what I learned	.585	
Trainer expressed a personal interest in me and the other trainees	.582	
Training directly related to my job		.740
The training realistically mirrored my job		.727
I was told "why" training was important		.632
Training was based upon my needs		.621

Variables/items	VARIMAX-rotated loadings	
	Factor 5 (Tangibles)	Factor 6 (Credibility)
Training room was geared to the physical comfort of trainees	.800	
Training was conducted in a quality facility	.787	
Training segments were divided by frequent short breaks	.552	
Trainer was knowledgeable regarding content		.692
Trainer was confident		.672
Training was developed by people who once did my job		.636

Table 35

Cronbach Alpha Scores for Each of the Six Factors/Dimensions Identified in Exploratory Factor Analysis of Trainees Perceived Quality of Training per Perception Only Measurement

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Interactivity	Training included small group work	.8038
	Training incorporated humor	
	Trainer candidly related his/her work experiences	
	I learned from the other trainees	
Climate	Mood during training	.7919
	was supportive	
	Training environment was informal	
	I felt relaxed during training	
	I felt safe during training	

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Courtesy	I expect some follow-up to the training after I return to work	.7069
	Trainer expressed appreciation for my previous work experience	
	Training included a test to evaluate what I learned	
	Trainer expressed a personal interest in me and the other trainees	
Relevance	Training directly related to my job	.7231
	The training realistically mirrored my job	
	I was told "why" training was important	
	Training was based upon my needs	
Tangibles	Training room was geared to the physical comfort of trainees	.6715
	Training was conducted in a quality facility	
	Training segments were divided by frequent short breaks	

Factors/dimensions	Items comprising dimension	Cronbach's alphas
Credibility	Trainer was knowledgeable regarding content	.6240
	Trainer was confident	
	Training was developed by people who once did my job	

in the .70 to .79 range; and two dimensions scored between .60 and .69. The overall reliability for the six dimensions defining the perception only measurement of perceived training quality was .8780.

Review of Perceived Training Quality Dimensions as Determined by Two Measures

The factor analysis conducted in phase 2 of this study reduced the number of dimensions of perceived training quality from nine (as identified in phase 1) to seven, if measured by the gap score, or from nine to six if using the perception only measurement. The two measurements shared four dimensions in common: interactivity, climate, relevance, and tangibles. Each of the nine original dimensions was represented on at least one of the measurement scales (gap or perceptions only).

After the phase 2 factor analysis process, the two scales each contained 22 items (see Tables 32 and 35). The gap scale and the perception only scale shared 16 items in common, and two items from the original 30-item scale did not appear on either of the finalized scales. The following list of the four common dimensions compares item compositions:

1. Interactivity. Three of the four items ("Training included small group work," "Training incorporated humor," and "Trainer candidly related his/her work experiences") that comprise the interactivity dimension on the perception only scale also define interactivity according to the gap measurement.

2. Climate. The four items ("Mood during training was supportive," "Training environment was informal," "I felt relaxed during training," and "I felt safe during training") that define the dimension of climate are identical regardless if determined by the gap measurement or the perception only measure.

3. Relevance. Two of the four items ("The training realistically mirrored my job," and "Training was based upon my needs") related to relevance, as determined by perceptions only, also supported the dimension when measured by the gap measurement.

4. Tangibles. The tangibles dimension has two items ("Quality food and beverage service should be provided during training." and "Training should be conducted in a quality facility") if measured by perceptions minus expectations, and three items ("Training room was geared to the physical comfort of trainees," "Training was conducted in a quality facility," and "Training segments were divided by frequent short breaks") if measured by perceptions only.

Five dimensions of perceived training quality that are unique to either the gap-based scale or the perception only scale, are entertainment, organization, accountability, courtesy, and credibility. Entertainment, organization, and accountability are dimensions of perceived training quality that appear only on the perceptions minus expectations scale:

1. Entertainment. Two of the three items ("Trainer was enthusiastic" and "Training was fun") that comprise the entertainment factor did not survive phase 1 analysis to even be considered as items on the perception only scale. The other entertainment item ("Trainer was confident") associated with the credibility dimension on the perceptions only scale of perceived training quality.

2. Organization. Two of the four items ("I knew how much time would be allotted to each topic during training" and "I knew the sequence of training") that support the gap-derived organization dimension were not even considerations on the perceptions only scale tested in phase 2. The other two factors ("Training room was geared to the physical comfort of trainees" and "Training segments were divided by frequent short breaks") loaded onto the tangibles dimension on the perceptions only scale for perceived training quality.

3. Accountability. One of the three items ("Training included a test to evaluate what I learned) of the gap-measured accountability dimension was eliminated during phase 1 factor analysis on the perceptions only scale. The other two items ("I expect some follow-up to the training after I return to work" and "Training included a test to evaluate what I learned") are part of the courtesy dimension on the perceptions only scale of perceived training quality.

Courtesy and credibility are dimensions of perceived training quality that appear only on the perceptions only scale:

1. Courtesy. Two of the four items that make-up the perceptions only courtesy dimension were previously discussed as part of the accountability factor on the gap scale of perceived training quality. One of the items ("Trainer expressed a personal interest in me and the other trainees") did not survive phase 1 factor analysis to even appear on the gap-based scale in phase 2. The fourth item supporting the courtesy dimension ("Trainer expressed appreciation for my previous work experience") was dropped from the gap-based scale during phase 2 factor analysis due to a low loading score.

2. Credibility. One of the three items ("Training was developed by people who once did my job") comprising the credibility dimension was eliminated from the gap-based scale during factor analysis in phase 1. The second item ("Trainer was knowledgeable regarding content") is part of the relevance dimension on the gap-based scale, and the last item supporting the perception only derived credibility dimension ("Trainer was confident") was previously identified as an entertainment dimension item on the gap measurement scale.

Re-evaluation of the Titles and Definitions of the Training Quality Dimensions

Given the final groupings of items that formed each dimension, as determined by either the gap measurement or the perception only measure, the originally designated titles and definitions were re-evaluated to determine their continued suitability. As a result of that process,

the original titles proposed for the perceived training quality dimensions remained intact, although their corresponding definitions were updated slightly to more accurately represent the supporting items:

1. Relevance - the relationship of training to trainees' needs and job performance.
2. Credibility - training content and delivery based upon experience and knowledge.
3. Entertainment - the infusion of excitement and fun into training.
4. Interactivity - trainees' participation in training through interpersonal activities.
5. Tangibles - the physical facilities and structure of training.
6. Organization - the pre-preparation and orderly presentation of training.
7. Climate - the surrounding condition or mood of the training environment.
8. Courtesy - respect, recognition, and on-going concern for trainees by trainer.
9. Accountability - the responsibility associated with training beyond the initial experience.

Evaluation of Proposition 1

Proposition 1: The dimensions that define perceived training quality are similar to the dimensions (tangibles, reliability, responsiveness, assurance, and empathy) that have been found to comprise the construct of service quality.

As mentioned in the methodology section, this study is exploratory in nature; it investigates the applicability of service theory to training assessment. The work was approached inductively and the researcher did not make a conscious effort to design the dimensions of training quality to mirror those that have been found to define service quality. Rather, the qualitative investigation was open to capturing the unique aspects of training and the

titles/definitions of the resulting dimensions were driven via interpretation of the training data collected. Table 36 captures the similarities and differences between the dimensional frameworks of service quality (Parasuraman et al., 1988) and perceived training quality (as determined by both the gap measurement and a perceptions only measurement).

At a comparable stage in service quality research, the service quality construct was found to have five dimensions; the perceived training quality construct was found to have seven dimensions per the gap measure and six when measured by perceptions only. Regarding the gap-measured perceived training quality dimensions, three of the seven dimensions have service quality equivalents. Focusing more on matching the definitions than the titles, the perceived training quality dimensions of interactivity and climate paralleled the corresponding service quality dimensions of responsiveness and empathy. The dimension of tangibles was a direct match between perceived training quality and service quality. Four perceived training quality dimensions (relevance, entertainment, organization, and accountability) were unable to be paired with service quality dimensions.

For the perception only measure of perceived training quality, five of the six dimensions have service quality dimension equivalents: credibility and reliability, interactivity and responsiveness, courtesy and assurance, climate and empathy, and tangibles was an exact match. Only the training dimension of relevance was unable to be matched with a comparable service quality dimension. All of the service quality dimensions were paired with dimensions of one or both measures of perceived training quality.

Since three out of seven (43%) of the training quality dimensions determined by the gap measure and five out of six (83%) of the perceived training quality dimensions measured by perceptions only were able to be matched with service quality dimensions, proposition 1 was

Table 36

A Comparison of the Dimensions of Service Quality with the Dimensions of Perceived Training Quality as Determined by a Gap Measurement (Perceptions minus Expectations) and a Perceptions Only Measurement

Service quality dimensions with definitions per Parasuraman et al.	Corresponding perceived training quality dimensions	
	Perceptions minus expectations measure	Perceptions only measure
Tangibles: Physical facilities, equipment, and appearance of personnel	Tangibles	Tangibles
Reliability: Ability to perform the promised service dependably and accurately	No Equivalent	Credibility
Responsiveness: Willingness to help customers and provide prompt service	Interactivity	Interactivity
Assurance: Knowledge and courtesy of employees and their ability to inspire trust and confidence[a]	No Equivalent	Courtesy
Empathy: Caring, individualized attention the firm provides its customers[b]	Climate	Climate
No Equivalent	Relevance	Relevance
No Equivalent	Entertainment	
No Equivalent	Organization	
No Equivalent	Accountability	

Note. The last two dimensions were formed in the later stages of research and encompassed two or more of the originally conceptualized service quality dimensions.

[a] Assurance includes the following original dimensions of service quality: communication, credibility, security, competence, and courtesy.

[b] Empathy includes two original dimensions of service quality: understanding/knowing customers' needs and access.

supported. The results indicate a greater similarity between service quality dimensions and the perception only measure of perceived training quality dimensions than between the service quality dimensions and the gap measured perceived training quality dimensions.

Testing of Hypothesis 1

Hypothesis 1: The correlation of the gap score (P-E) across all dimensions (as determined by averaging the mean scores for each dimension) to overall training quality is not equal to the correlation of a perception only (P) measure across all dimensions (as determined by averaging the mean scores for each dimension) to overall training quality.

A measure of association was the most appropriate statistical test to determine if the two variables are interrelated. In this case, the correlation of perceived training quality per the gap measure and overall training quality (measured on a global scale of 1 to 10), was compared with the correlation of perceived training quality derived by perceptions only and the same overall training quality measurement. H_0: $\rho_1 = \rho_2$, H_1: $\rho_1 \neq \rho_2$.

Simple correlation analysis (Pearson's product-moment correlation coefficient, *r*), produced a correlation matrix that identified a statistically significant, positive correlation of .374 between perceived training quality, as determined by the average of the mean gap scores for each dimension of training quality, and the overall quality rating indicated by trainees (see Table 37). Table 38 indicates a statistically significant, positive correlation of .550 between perceived training quality, as determined by the average of the mean perception only scores for each dimension of training quality, and the overall quality rating indicated by trainees. The difference between the correlation coefficients (.550 and .374) exceeds the .15 criterion level, indicating a meaningful difference between the two measures of perceived training quality.

Table 37

Pearson Product-Moment Correlation for Dimensions of Perceived Training Quality (Gap Measurement, Perceptions minus Expectations) and Trainees' Overall Rating of Training Quality

Variables/Dimensions	Correlation for each dimension with overall measure of training quality
Climate Dimension	.201*
Entertainment Dimension	.410**
Organization Dimension	.181*
Interactivity Dimension	.322**
Tangibility Dimension	.108
Accountability Dimension	.222**
Relevance Dimension	.312**
Gap Measure of Training Quality	.374**

Note. ** Correlation is significant at the .01 level
* Correlation is significant at the .05 level

Table 38

Pearson Product-Moment Correlation for Dimensions of Perceived Training Quality (Perception Only Measurement) and Trainess' Overall Rating of Training Quality

Variables/Dimensions	Correlation for each dimension with overall measure of training quality
Interactivity Dimension	.452**
Climate Dimension	.379**
Courtesy Dimension	.338**
Relevance Dimension	.374**
Tangibility Dimension	.278*
Credibility Dimension	.309**
Perception Only Measure of Training Quality	.550**

Note. ** Correlation is significant at the .01 level
* Correlation is significant at the .05 level

Therefore, research Hypothesis 1 is supported; the correlation between the two measurements of perceived training quality and an overall training quality rating are not equal. The correlation coefficient for the perception only measurement (.550) is higher/closer to 1.0 than the correlation coefficient for the gap measurement (.374), thereby indicating that perceived training quality determined by perceptions only is more highly associated with overall training quality than a gap measurement of perceived training quality. This conclusion reinforces the construct validity of the perception only measurement of perceived training quality as derived through six dimensions of training quality.

Testing of Hypothesis 2

Hypothesis 2: The greater the trainees' perceptions of training quality, the greater are their self-reported intentions to transfer training.

Simple correlation analysis was used to test the hypothesis at the .05 level: H_0: $\rho = 0$, H_1: $\rho > 0$. As stated earlier in the methodology, the hierarchical nature of this research dictated that the measurement method found to be the most highly correlated with overall training quality via the testing of Hypothesis 1, would be used to test Hypothesis 2. Accordingly, perceived training quality (as determined by the perception only measurement) was correlated with scores from the three-item intention to use training index.

The results indicated a statistically significant, positive correlation of .522 (.01 level) between perceived training quality, as determined by trainee's perception only ratings on the six dimensional scale, and intention to use training. Therefore, the null hypothesis was rejected and research Hypothesis 2 was supported.

Other Validation Analysis

Since data were intentionally collected and pooled from six different training sessions for the purpose of developing a generally applicable scale, Table 39 profiles the internal reliabilities of the six factors of the final scale across the six training groups. Allowing for the variability that results from small samples, the degree of consistency across the six independent samples is encouraging at this exploratory level of investigation.

Summary

The instrument developed as a result of the scale refinement process in phase 1 included items that allowed for further exploration of both the gap-based measure of perceived training quality and the perception only measurement of perceived training quality. The testing conducted in phase 2 further refined the multi-dimensional scales, while supporting Proposition 1 and research Hypotheses 1 and 2. As a result, the six dimension/22 item scale based upon perception only measures, became the Perceived Training Quality Scale that is a product of this research (see Appendix E).

Table 39

Internal Consistency Reliabilities of the Six Factors of the Perceived Quality of Training Scale Across Six Independent Samples

Dimensions	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Interactivity	.7257	.7502	.5248	.6537	.5882	.7641
Climate	.8145	.7380	.7074	.8893	.7573	.8089
Courtesy	.7128	.7581	.6589	.7573	.6308	.6876
Relevance	.6889	.6468	.6494	.7592	.7577	.7500
Tangibility	.7454	.7245	.7056	.6276	.3843	.6896
Credibility	.3333	.5971	.6037	.6453	.6028	.6483
Total	.6167	.8113	.6957	.7838	.6970	.7660

CHAPTER V

DISCUSSION

Introduction

This research explored a new framework for training assessment. Based upon the paradigm that training is a service, theories of service quality and adult education provided a foundation for the development of a multi-dimensional training quality construct that fits into Kirkpatick's (1959) model as a first level or reaction measure of training effectiveness. Methodology was patterned after the service protocol used by Parasuraman et al. (1985, 1988) while exercising flexibility to fully capture the unique aspects of training. Beginning qualitatively with trainer and trainee interviews, research continued through scale refinement and testing, leading to development of a Perceived Training Quality Scale that features six dimensions: interactivity, climate, courtesy, relevance, tangibles, and credibility.

This final chapter presents and discusses a revised model of perceived training quality and transfer that is based upon the results of this research. In the process, it also compares perceived training quality with service quality in terms of defining dimensions, scale composition, and measurements. Finally, the construct of training quality is discussed in terms of its association with training transfer, the third or behavioral level of Kirkpatrick's model (1959). Remaining sections of this chapter explore implications, review limitations, and make suggestions for future research.

Discussion of Research Findings

The revised model of perceived training quality and transfer (see Figure 9) is based upon the findings of this research study. Through a process that included experience surveys, content

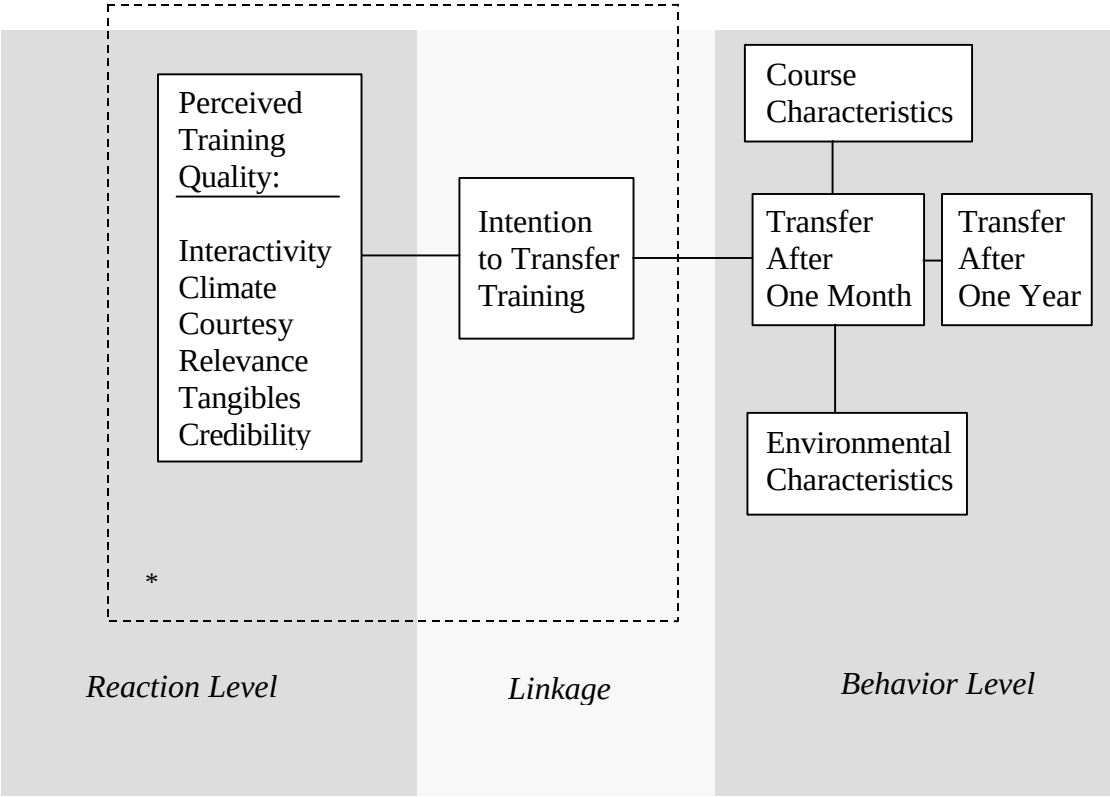

Figure 9. Revised model of perceived training quality and transfer

* Indicates portion of model tested

assessment, questionnaire administration (n=115), exploratory factor analysis, and tests for internal reliability, perceived training quality scales were developed and then tested with a sample of 164 hospitality trainees. Testing (or phase 2 of this research) further distilled the number of dimensions while indicating that perceptions only is a better measurement than perceptions minus expectations in terms of assessing perceived training quality. Trainees' responses to the six-factor perceived training quality scale were significantly associated with their overall evaluations of training quality per a single scale measure. Also, perceived training quality, as evaluated through the multi-dimensional scale, was found to be significantly associated with trainees' intention to use training when they returned to their jobs.

Gap (Perceptions minus Expectations) Versus Perceptions Only Measure

When comparing the gap measurement of perceived training quality with the perceptions only measurement, the following findings contributed to the conclusion that perceptions only is a better measurement of perceived training quality:

1. The internal reliabilities of the individual dimensions were higher for the perception only measure (ranging from .8038 to .6240) than they were for the dimensions produced as a result of the gap measurement of perceived training quality (ranging from .7058 to .4768). Also, the range between dimensions was smaller for the perception only measurement (.8038 - .6240) compared to the gap measurement (.7058 - .4768).

2. Subjectively speaking, the items that loaded on each factor/dimension of the perception only scale of perceived training quality were more consistent conceptually than the items associated with each of the dimensions as determined by the gap measurement.

3. The overall internal reliability was slightly higher for the perception only generated dimensions (.8780) than it was for the gap-based factor structure (.8492). Both scores are good, however, since a coefficient alpha of .70 or greater is considered to be a positive indicator that

the sampling domain was adequately captured. In exploratory research, alphas less than .70 are frequently considered acceptable (Nunnally, 1978).

4. The measure of sampling adequacy (MSA) for the perception only factor analysis was in the meritorious range whereas the MSA for the gap measurement of perceived training quality was in the middling range (Hair et al., 1995).

5. The percentages of variance explained by the two factor structures were approximately equal. The six factors of the perception only measurement explained 63.9% of the variance while the seven factors produced by a measure of perceptions minus expectations explained 64.1% of the total variance. According to social science standards, anything over 60% is considered a satisfactory solution (Hair et al., 1995).

6. Looking at the correlation between an independent overall rating of training quality as compared to both the perception only and gap-based measurements of perceived training quality, the correlation coefficient for the perception only scale was .550 whereas the correlation between the overall rating and the perception minus expectation measure was .374. The two correlations were determined, by the researcher, to be meaningfully different in terms of their association with an overall rating of perceived training quality.

7. Regarding correlations between individual factors of perceived training quality and an independent overall rating of training quality, on the four dimensions (interactivity, climate, relevance, and credibility) that were shared by both the perception only measure and the gap measure, the correlation coefficients were higher for all factors based upon a perception only measurement.

8. For purposes of cross-validation, a comparison was made between correlation coefficients of individual perceived training quality dimensions and overall rating of training

quality, and the magnitude of variance explained by each factor via factor analysis. For the perception only factor structure, the factor explaining the greatest variance (interactivity) and the factor explaining the second highest variance (climate) also had the highest and second highest correlations with overall rating of training quality. Factors three and four were transposed on this scale as were factors five and six when making the same comparison as previously discussed. For example, while factor three explained the third greatest degree of variance, it was fourth in terms of magnitude of correlation with overall rating of training quality. For the gap-based measure of perceived training quality, the percentage of variance explained by the seven dimensions does not compare on any level with the magnitude of the correlations between each dimension and the overall rating of training quality.

Given the results previously reviewed, the perceptions only based measurement was deemed more suitable for the assessment of perceived training quality. Therefore, this research produced a final Perceived Training Quality Scale (see Table 40) consisting of 22 items representing six dimensions of training quality.

Dimensions of Perceived Training Quality

The six dimensions of perceived training quality identified through the perceptions only measurement are interactivity, climate, courtesy, relevance, tangibility, and credibility. All but one of the perceived training quality dimensions can be matched with a service quality dimension (Parasuraman et al., 1988) either by title or by definition.

Interactivity explains the greatest percentage of variance in the perceived training quality scale and has the highest correlation with trainees' overall evaluation of training quality. Interestingly, in the beginning stage of this research, interactivity tied with meeting space as the number one most frequently mentioned word or concept by interviewees; eight out of nine

Table 40

Twenty-two Items and Their Respective Affiliations with the Six Dimensions of the Finalized Perceived Quality of Training Scale

Factors/dimensions	Items comprising dimensions
Interactivity	Training included small group work
	Training incorporated humor
	Trainer candidly related his/her work experiences
	I learned from the other trainees
Climate	Mood during training was supportive
	Training environment was informal
	I felt relaxed during training
	I felt safe during training
Courtesy	I expect some follow-up to the training after I return to work
	Trainer expressed appreciation for my previous work experience
	Training included a test to evaluate what I learned
	Trainer expressed a personal interest in me and the other trainees
Relevance	Training directly related to my job
	The training realistically mirrored my job
	I was told "why" training was important
	Training was based upon my needs

Factors/dimensions	Items comprising dimensions
Tangibles	Training room was geared to the physical comfort of trainees
	Training was conducted in a quality facility
	Training segments were divided by frequent short breaks
Credibility	Trainer was knowledgeable regarding content
	Trainer was confident
	Training was developed by people who once did my job

interviewees said that interactivity is a key determinant of training quality. The term interactivity encompasses the active versus passive involvement of trainees in the training process as well as trainer to trainee and trainee to trainee interaction. The degree of interactivity equates with the responsiveness of the training process to the needs of the trainee; it is the delivery intersection between the trainee and the training content. This finding is consistent with the principles of adult-learning which indicate an experiential training format that is trainee-focused is preferential to a lecture format that is instructor-focused (Knowles, 1978).

Climate explained the second highest level of variance regarding perceived training quality and it ranked second highest in degree of correlation with an overall training quality scale. Again, this is consistent with adult learning literature that indicates adults respond best in a non-threatening environment (Reed, 1993). Interviews with trainers and trainees indicated that a supportive environment reflects an attitude of care and concern for trainees on the part of the trainer and/or training organization.

Relevance was the third highest dimension in terms of explaining total variance of perceived training quality, and the one quality dimension that appears to be unique to the service of training. Relevance of training in terms of being need-based and useful to the trainee in his/her job is frequently discussed in training literature, particularly related to motivation and transfer (Noe, 1986). Also, the need of adults to understand why they should learn something and how it will help them in life situations, is a constant theme throughout adult education literature (Knowles, 1978).

Courtesy refers to the way that trainers treat trainees, by respecting their previous experiences, getting to know them as individuals, and inspiring confidence beyond the training venue. It was the fourth highest dimension in terms of explaining total variance of perceived

training quality, and it compares most closely with the assurance dimension of service quality. Again consistent with adult education principles, the results of this study indicated a significant, positive correlation of .338 between courtesy and overall perceived training quality.

Tangibles refer to the physical facilities or structure associated with training, and it equates exactly with the tangibles dimension of service quality. This dimension is second to the last in terms of explaining variance of perceived training quality and it has the lowest correlation (.278) with the overall training quality rating. Included in this dimension are tangible items (facility, meeting space, breaks) that support trainees' physical and emotional comfort.

Credibility, the last training dimension to be reviewed, explains the least amount of perceived training quality variance when compared with the other dimensions of perceived training quality. It equates to the service dimension of reliability as both address the ability to perform the promised services accurately; in training this is predicated upon experience and knowledge of the trainer and/or the individuals who created the training program.

Perceived Training Quality and Intention to Use Training

Although the rigorous process that led to the development of the Perceived Training Quality Scale addressed content adequacy and internal consistency reliability, it was through the testing of Hypothesis 1 that construct validity was assessed. The Perceived Training Quality Scale correlated positively and significantly with the overall rating scale for perceived training quality. This evidence of convergent validity, at an exploratory level of research, is encouraging since it speaks to the ability of the Perceived Training Quality Scale to capture the multi-dimensionality of a previously unexplored construct.

The next step in the model involved the link between trainees' attitudes of perceived training quality and their behavioral intentions to use training. Paralleling Bitner's findings

(1990) that perceived service quality is a significant predictor of behavioral intentions, this research found a significant positive correlation between trainees' perceptions of training quality (as evaluated on the six dimensional scale) and trainees' intentions to use training when they return to work. This is an important finding since the researcher's initial motivation behind exploring perceived training quality was based upon a hope of eventually establishing it as an input (trainee characteristic) to explaining training transfer.

Implications of the Research

The vast amount of resources spent each year on training coupled with the acknowledged need for improved training evaluation criteria and methods, speaks directly to the value of a measurement scale that enables training professionals and organizations to better understand the determinants of perceived training quality. The Perceived Training Quality Scale, parsimonious yet conceptually thorough, has shown good reliability and validity in the early stages of investigation. Hopefully, further research will confirm these initial results while also addressing issues of generalizeability of the scale across various training venues.

The immediate practical contribution of the research that led to the development of the Perceived Training Quality Scale, is in the area of understanding the dimensions of a quality instructor-led training program from the perspective of trainees. Knowledge of the framework for perceived training quality has the potential to improve training programs, regardless of the administration of the actual assessment instrument. For example, anyone developing a new training program, or assessing an existing program, can use the six dimensions as a blueprint for training quality. Since the results of this study indicate that trainees' perceptions of training quality, as determined by the Perceived Training Quality Scale, are associated with intentions to use training, then training that focuses on the six perceived training quality dimensions is likely

to inspire transfer to the work environment. As reviewed in Chapter II, training transfer that occurs at the behavioral level of Kirkpatrick's model (1959) is essential to training effectiveness.

Quantitatively, the Perceived Training Quality Scale can benchmark existing training quality as it pertains to a specific training class or a company's overall training effort. For example, the instrument can be administered annually to assess employees' impressions of the company's overall training program, instead of just using the questionnaire to evaluate a given training class. The measurement is particularly useful when applied periodically to track training quality reactions over a period of time. Also, the Perceived Training Quality Scale can assess the success of the training effort in regard to each of the six dimensions. A low score on a particular dimension can serve as an indicator of appropriate action in order to initiate a positive change.

From a theoretical standpoint, this research expands the body of knowledge concerning training by incorporating new information derived from eclectic literature bases. It also calls into question the methodology used by researchers who have assessed a perceptions only measure of training quality through the use of the SERVQUAL battery of items. As this study revealed, a gap measurement produces different factors and items than a perception only based measurement. Therefore, an instrument such as SERVQUAL is an inappropriate test for a perception only measure of service quality, since its core factor structure is based upon gap (perceptions minus expectations) measurements.

Limitations and Suggestions for Future Research

The limitations associated with this study evolve primarily around sampling issues. The following boundaries, established in the early stages of the research design, act as limiting factors to the generalizeability of the results: (1) the perceived training quality scale was developed and tested within the hospitality industry, (2) the scale was developed specifically to

assess the perceived training quality of instructor-led training sessions, and (3) the subjects involved in scale refinement and testing were all supervisory or management level employees. And, by chance, the training topics of the sessions sampled were behavioral in nature. The use of a convenience sample was also limiting since "projecting the data beyond the sample is statistically inappropriate" (Zikmund, p. 428, 1997) when using non-probability sampling techniques.

The boundaries and sampling techniques previously reviewed were chosen due to the exploratory nature of this research, knowing that the next logical step is to test the Perceived Training Quality Scale on a probability sample of trainees from a variety of settings other than hospitality. A benefit to using probability sampling is that it expands the possibility of using higher level statistical techniques to interpret the data. For example, the use of multivariate techniques in future research would be helpful to more fully understanding the relationships between constructs.

Testing the Perceived Training Quality Scale for generalizeability as it applies to different types of training and/or varying levels of employees within an organization are also options for future research. Or, an equally interesting extension of this study, might be to examine the responses of segments of the total sample (i.e. men versus woman, trainees who elected to attend the training versus trainees who whose attendance was mandatory, etc.) as opposed to testing the group as a whole.

Lastly, the balance of the Model for Training Quality and Transfer remains to be tested. Hopefully, a longitudinal study will be initiated to assess the relationship between perceived training quality and trainees' actual/maintained transfer of training.

Conclusions

The goal of this research was to adapt theories of service and adult learning to the area of training for the purpose of developing an instrument to measure perceived training quality. The results produced a concise scale that requires trainees to express their perceptions toward training on 22 items that represent the six dimensions of perceived training quality. The perceived training quality dimensions of interactivity, climate, courtesy, relevance, tangibles, and credibility, are a reflection of the service quality dimensions identified by Parasuraman et al. (1988), thus supporting the underlying premise that training is a service.

Testing of the perceived training quality scale indicated good internal consistency reliability and convergent validity. Additionally, the scale is significantly associated with trainees' intentions to transfer training. Although further research is needed, the contribution of this exploratory research evolves around identification of a new framework for evaluating training. Additionally, knowledge of the six dimensions that define perceived training quality can immediately assist hospitality professionals to develop and execute more effective training programs.

References

Ajzen, I. & Fishbein, M. (1980). Understanding Attitudes and Predicting Social Behavior. Englewood Cliffs: Prentice-Hall, Inc.

Albrecht, K. (1985). Achieving excellence in service. Training and Development Journal, 39(12), 64-67.

Alliger, G. M. & Janak, E. A. (1989). Kirkpatrick's levels of training criteria: Thirty years later. Personnel Psychology, 42, 331-341.

Alliger, G. M., Tannenaum, S. I., Bennett, Jr. W., Traver, H., & Shotland, A. (1997). The meta-analysis of the relations among training criteria. Personnel Psychology, 50, 341-358.

Axtell, C. M., Maitlis, S., & Yearta, S. K. (1997). Predicting immediate and longer-term transfer of training. Personnel Review, 26(3), 201-213.

Bacharach, S. B. (1989). Organizational theories: Some criteria for evaluation. Academy of Management Review, 14(4), 496-515.

Baldwin, T. & Ford, K. (1988). Transfer of training: A review and directions for future research. Personnel Psychology, 41, 63-105.

Baldwin, T. T. & Magjuka, R. J. (1991). Organizational training and signals of importance: Linking pretraining perceptions to intentions to transfer. Human Resource Development Quarterly, 2(1), 25-36.

Bandura, A. (1969). Principles of Behavior Modification. New York: Holt, Rinehart & Winston.

Barrington, M. N. & Olsen, M. D. (1987). Concept of service in the hospitality industry. International Journal of Hospitality Management, 6(3), 131-138.

Bateson, J. E. (1979). Why we need service marketing. In O. C. Ferrell, S. W. Brown, & C. W. Lamb (Eds.), Conceptual and Theoretical Developments in Marketing. Chicago: American Marketing Association.

Baumgartel, H., Reynolds, M., & Pathan, R. (1984). How personality and organizational-climate variables moderate the effectiveness of management development programmes: A review and some recent research findings. Management and Labour Studies, 9, 10-16.

Becker, C. F. (1992). A middle range approach to theory development for service organizations. Unpublished manuscript, Virginia Polytechnic Institute and State University.

Berg, B. L. (1998). Qualitative research methods for the social sciences (3rd ed.). Needham Heights, MA: Allyn and Bacon.

Berrien, F. K. (1968). General and Social Systems. New Jersey: Quinn & Boden Company, Inc.

Berry, L. L. (1980). Services marketing is different. Business, May-June, 24-29.

Bitner, M. J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. Journal of Marketing, 54, 69-82.

Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosing favorable and unfavorable incidents. Journal of Marketing, 54, 71-84.

Blum, M. O. & Naylor, J. C. (1968). Industrial Psychology: Its Theoretical and Social Foundations. New York: Harper Row.

Bowen, D. (1986). Managing customers as human resources in services organizations. Human Resource Management, 25, 371-384.

Briggs, G. E. & Naylor, J. C. (1962). The relative efficiency of several training methods as a function of transfer task complexity. Journal of Experimental Psychology, 64, 505-512.

Broad, M. L. & Newstrom, J. W. (1991). Transfer of Training. Massachusetts: Addison-Wesley Publishing Company, Inc.

Campbell, J. P. (1971). Personnel training and development. Annual Review of Psychology, 22, 265-602.

Carman, J. M. (1990). Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. Journal of Retailing, 66(1), 33-55.

Carroll, S. J., Paine, F. T., & Ivancevich, J. J. (1972). The relative effectiveness of training methods – expert opinion and research. Personnel Psychology, 25, 495-509.

Catalanello, R. F. & Kirkpatrick, D. L. (1968). Evaluating training programs – the state of the art. Training and Development Journal, 22(5), 2-9.

Churchill Jr., G. A. (1979). A paradigm for developing better measures of marketing constructs. Journal of Marketing Research, 16, 64–73.

Clark, C. S., Dobbins, G. H., & Ladd, R. T. (1993). Exploratory field study of training motivation. Group and Organization Management, 18(3), 292-307.

Conrade, G., Woods, R., & Ninemeier, J. (1994). Training in the U.S. lodging industry: perception and reality. The Cornell Hotel and Restaurant Administration Quarterly, 35(5), 16-21.

Crannell, C. W. (1956). Transfer in problem resolution as related to the type of training. The Journal of General Psychology, 54, 3-14.

Cravens, D. W. (1988). The marketing of quality. Incentive, 162(11), 26-34.

Cronin, J. J. & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. Journal of Marketing, 56(3), 55-68.

Derrick, F. W., Desai, H. B., & O'Brien, W. R. (1989). Survey shows employees at different organizational levels define quality differently. Total Quality Management, IV, 22-27.

Facteau, J. K., Dobbins, G. H., Russell, J. E., Ladd, R. T., & Kudisch, J. D. (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. Journal of Management, 21(1), 1-25.

Faerman, S. R., and Ban, C. (1993). Trainee satisfaction and training impact: Issues in training evaluation. Public Productivity and Management Review, XVI(3), 299-314.

Festinger, L. (1964). Behavioral support for opinion change. Public Opinion Quarterly, 28, 404-417.

Ford, J. K., MacCallum, R. C. & Tait, M. (1986). The application of exploratory factor analysis in applied psychology: A critical review and analysis. Personnel Psychology, 39, 291-314.

Ford, J. K., Quinones, M. A., Sego, D. J., & Sorra, J. S. (1992). Factors affecting the opportunity to perform trained tasks on the job. Personnel Psychology, 45, 511-527.

Fotheringhame, J. (1986). Transfer of training: A field study of some training methods. Journal of Occupational Psychology, 59, 59-71.

Gagne, R. M. (1965). The Conditions of Learning and Theories of Instruction. New York: Holt, Rinehart and Winston, Inc.

Gagne, R. M. & Dick, W. (1983). Instructional psychology. Annual Review of Psychology, 34, 261-295.

Gagne, R. M. & Foster, H. (1949). Transfer to a motor skill from practice on a pictured representation. Journal of Experimental Psychology, 39, 342-354.

Garavaglia, P. L. (1993). How to ensure transfer of training. Training and Development, 47(10), 63-68.

Georgenson, D. L. (1982). The problem of transfer calls for partnership. Training and Development Journal, 36(1), 75-78.

Ghiselli, E. E. (1966). The Validity of Occupational Aptitude Tests. New York: John Wiley & Sons.

Gist, M. E., Bavetta, A. G., & Stevens, C. K. (1990). Transfer training method: Its influence on skill generalization, skill repetition, and performance level. Personnel Psychology, 43, 501-523.

Goldstein, I.L. (1980). Training in work organizations. Annual Reviews in Psychology, 31, 229-72.

Goldstein, I. L., & Gilliam, P. (1990). Training system issues in the year 2000. American Psychologist, 45(2), 134-143.

Goldstein, I. L. (1993). Training in Organizations. Belmont: Brooks/Cole Publishing Company.

Gronroos, C. (1982). Strategic Management and Marketing in the Service Sector. England: Chartwell-Bratt.

Gronroos, C. (1984). A service quality model and its marketing implications. European Journal of Marketing, 18(4), 36-44.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). Multivariate Data Analysis. New Jersey: Prentice Hall.

Hand, H. H., Richards, M. D., & Slocum Jr., J. W. (1973). Organizational climate and the effectiveness of a human relations training program. Academy of Management Journal, 16(2), 185-195.

Harvey, R. J., Billings, R. S., & Nilan, K. J. (1985). Confirmatory factor analysis of the job diagnostic survey: Good news and bad news. Journal of Applied Psychology, 70, 461-468.

Hartline, M. D. & Jones, K. C. (1996). Employee performance cues in a hotel service environment: Influence on perceived service quality, value, and word-of-mouth intentions. Journal of Business Research, 35, 207-215.

Haywood, K. M. (1992). Effective training: Toward a strategic approach. Cornell Hotel and Restaurant Administration Quarterly, 33(6), 43-52.

Headley, D. E. & Miller, S. J. (1993). Measuring service quality and its relationship to future consumer behavior. Journal of Health Care Marketing, 13 (4), 32-42.

Hicks, W. D., & Klimoski, R. J. (1987). Entry into training programs and its effects on training outcomes: A field experiment. Academy of Management Journal, 30, 542-552.

Hinkin, T. R., Tracey, J. B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. Journal of Hospitality and Tourism Research, 21(1), 100-120.

Hoiberg, A. & Berry, N. H. (1978). Expectations and perceptions of navy life. Organizational Behavior and Human Performance, 21, 130-145.

Holbrook, M. B. & Corfman, K. P. (1985). Quality and value in the consumption experience: Phaldrus rides again. In J. Jacoby & J. Olson (Eds.), Perceived Quality (pages 31–57). Lexington: Lexington Books.

Huczynski, A. A., & Lewis, J. W. (1980). An empirical study into the learning transfer process in management training. Journal of Management Studies, 17, 227-240.

Insko, C. A. (1967). Theories of Attitude Change. New Jersey: Prentice-Hall, Inc.

Kirkpatrick, D. L. (1959). Techniques for evaluating training programs. Journal of the American Society of Training Directors, 13(59), 3-9.

Kirkpatrick, D. L. (1979). Techniques for evaluating training programs. Training and Development Journal, 33(6), 78-92.

Kirkpatrick, D. L. (1998). Evaluating Training Programs. San Francisco: Berrett-Koehler Publishers, Inc.

Knowles, M. (1978). The Adult Learner, a Neglected Species. Houston: Gulf Publishing Company.

Knutson, B., Stevens, P., Wullaert, C., Patton, M., & Yokoyama, F. (1990). LODGSERV: A service quality index for the lodging industry. Hospitality Research Journal, 14(2), 277-284.

Kraiger, K., Ford, J. K., & Salas, E. (1993). Application of cognitive, skill-based, and affective theories of learning outcomes to new methods of training evaluation. Journal of Applied Psychology, 78(2), 311-328.

Kraus, S. J. (1995). Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. Personality and Social Psychology Bulletin, 21(1), 58-75.

Lissitz, R. W. & Green, S. B. (1975). Effect of the number of scale points on reliability: A Monte Carlo approach. Journal of Applied Psychology, 60, 10-13.

Locke, E. A. (1967). The motivational effect of knowledge of results: Knowledge or goal setting? Journal of Applied Psychology, 51, 324-329.

Lovelock, C. H. (1983). Classifying services to gain strategic marketing insights. Journal of Marketing, 47, 9-20.

Maddox, N.R. (1985). Measuring satisfaction with tourism. Journal of Travel Research, XXIII(3), 2-5.

Mathieu, J. E., Tannenbaum, S. I., & Salas, E. (1992). Influences of individual and situational characteristics on measures of training effectiveness. Academy of Management Journal, 35(4), 828-847.

McCleary, K. W. & Weaver, P. A. (1982). Improving employee service levels through identifying sources of customer satisfaction. International Journal of Hospitality Management, 1(2), 85-89.

Miles, M. B. (1965). Changes during and following laboratory training: A clinical-experimental study. Journal of Applied Behavioral Science, 1, 215-242.

Mills, P. K. & Margulies, N. (1980). Toward a core typology of service organizations. Academy of Management Review, 5(2), 255-265.

Noe, R. (1986). Trainees' attributes and attitudes: Neglected influences on training effectiveness. Academy of Management Review, 11(4), 736-749.

Noe, R. A. & Schmitt, N. M. (1986). The influence of trainee attitudes on training effectiveness: Test of a model. Personnel Psychology, 39, 497-523.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

Oliver, R. (1981). Measurement and evaluation of satisfaction process in retail settings. Journal of Retailing, 57, 25-48.

Olshavsky, R. W. (1985). Perceived quality in consumer decision making: An integrated theoretical perspective. In J. Jacoby & J. Olson (Eds.), Perceived Quality. Lexington: Lexington Books.

Olson, J. C. (1977). Price as an information cue: Effects in product evaluation. In A. Woodside, J. Sheth, & P. Bennett (Eds.), Consumer and Industrial Buying Behavior (pages 267-286). New York: North Holland Publishing.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49, 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. Journal of Retailing, 64(1), 12-37.

Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Refinement and reassessment of the SERVQUAL scale. Journal of Retailing, 67(4), 420-451.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994). Reassessment of expectations as a comparison standard in measuring service quality: Implications for further research. Journal of Marketing, 58(1), 111-124.

Parry, S. B. (1997). Evaluating the impact of training. Alexandria: American Society for Training and Development.

Perreault Jr., W. D. (1992). The shifting paradigm in marketing research. Journal of the Academy of Marketing Science, 20, 367-375.

Porter, L. W., Lawler, E. E., & Hackman, J. R. (1975). Behavior in Organizations. New York: McGrawy-Hill Book Company.

Rabin, J. H. (1983). Accent is on quality in consumer services this decade. Marketing News, 17, 12.

Reed, J. (1993). Learner centered learning. Training and Development, 47(6), 20-21.

Reeves, E. T. & Jensen, J. M. (1972). Effectiveness of program evaluation. Training and Development Journal, 26(1), 36-41.

Rokeach, M. (1972). Beliefs, Attitudes, and Values. San Francisco: Jossey-Bass, Inc.

Rouiller, J. Z., & Goldstein, I. L. (1993). The relationship between organizational transfer climate and positive transfer of training. Human Resource Development Quarterly, 4, 377-390.

Ryman, D. H., & Biersner, R. J. (1975). Attitudes predictive of diving training success. Personnel Psychology, 28, 181-188.

Schmitt, N. W. & Stults, D. M. (1985). Factors defined by negatively keyed items: The results of careless respondents? Applied Psychological Measurement, 9, 367-373.

Schroth, M. L. (1995). Variable delay of feedback procedures and subsequent concept formation transfer. The Journal of General Psychology, 122(4), 393-399.

Schroth, M. L. (1997). Effects of frequency of feedback on transfer in concept identification. American Journal of Psychology, 110(1), 71-80.

Shore, E. & Sechrest, L. (1961). Concept attainment as a function of positive instances presented. Journal of Educational Psychology, 52, 303-307.

SPSS Base 10.0 Applications Guide. (1999). Chicago, IL: SPSS.

Steinmetz, C. S. (1976). The history of training. In R. L. Craig (Ed.), Training and Development Handbook (pages 1-3 – 1-14). New York: McGraw-Hill.

Stevens, P., Knutson, K., & Patton, M. (1995). DINESERV: A tool for measuring service quality in restaurants. Cornell Hotel and Restaurant Administration Quarterly, 56-60.

Tannenbaum, S. I., Mathieu, J. E., Salas, E., & Cannon-Bowers, J. A. (1991). Meeting trainees' expectations: The influence of training fulfillment on the development of commitment, self-efficacy, and motivation. Journal of Applied Psychology, 76 (6), 759-769.

Taylor, C. W. (1952). Pretesting saves training costs. Personnel Psychology, 5, 213-239.

Teas, R. K. (1993). Expectations, performance evaluation, and consumers' perceptions of quality. Journal of Marketing, 57(4), 18-34.

Thorndike, E. L. & Woodworth, R. S. (1901). The influence of improvement in one mental function upon the efficiency of other functions. Psychological Review, 8, 247-261.

Tight, M. (1996). Adult Education and Training. New York: Routledge.

Tracey, J. B. & Cardenas, C. G. (1996). Training effectiveness: An empirical examination of factors outside the training context. Hospitality Research Journal, 20(2), 113-123.

Tracey, J. B., Tannenbaum, S., & Kavanagh, M. (1995). Applying trained skills on the job: The importance of the work environment. Journal of Applied Psychology, 80(2), 239-252.

Tracey, J. B., & Tews, M. J. (1995). Training effectiveness: Accounting for individual characteristics and the work environment. Cornell Hotel and Restaurant Administration Quarterly, 36(6), 36-42.

Tubiana, J. H. & Ben-Shakhar, G. (1982). An objective group questionnaire as a substitute for a personal interview in the prediction of success in military training in Israel. Personnel Psychology, 35, 349-357.

Tziner, A. & Haccoun, R. R. (1991). Personal and situational characteristics influencing the effectiveness of transfer of training improvement strategies. Journal of Occupational Psychology, 64, 167-177.

Warr, P. & Bunce, D. (1995). Trainee characteristics and the outcomes of open learning. Personnel Psychology, 48(2), 347-376.

Wexley, K. N. & Baldwin, T. T. (1986). Posttraining strategies for facilitating positive transfer: An empirical exploration. Academy of Management Journal, 29(3), 503-520.

Wexley, K. N., & Latham, G. P. (1981). Developing and Training Human Resources in Organizations. Glenview: Scott Foresman.

Wexley, K. N. & Nemeroff, W. (1975). Effectiveness of positive reinforcement and goal setting as methods of management development. Journal of Applied Psychology, 64, 239-246.

Wiley, C. (1993). Training for the ‘90s. How leading companies focus on quality improvement, technological change, and customer service. Employment Relations Today, 20(1), 79-96.

Zeithaml, V. A. (1987). Defining and relating price, perceived quality, and perceived value. Cambridge, MA: Marketing Science Institute, Report no. 87-101.

Zeithaml, V. A. (1988). Consumer perceptions of price quality, and value: A means-end model and synthesis of evidence. Journal of Marketing, 52, 2-22.

Zikmund, W. G. (1997). Business Research Methods. Orlando: The Dryden Press.

Appendix A

Interview Notes from Experience Surveys
Qualitative Research

Interviewee #1:	Trainer	Date: Sept. 29, 2000
Background:	Hospitality Trainer Specialist in Sales Training	

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

Trainees need to understand "why" they're attending the training. The trainer needs to state a clear purpose to the topic so trainees know how the training is going to help them or be relevant in their work situation.

The credibility of the trainer is tremendously important. I'm not a professional trainer; I'm a (hospitality) industry professional with tons of experience and now I train others. I'm credible. They know that I know what I'm talking about. They believe what I tell them.

Trainers who have actually done the job are much more credible than professional trainers who just deliver material. Other things being equal, a trainer from industry will deliver much higher quality training than a professional trainer.

Can you think of any factors relating to materials, etc., that affect quality of training?

Sure. The pre-training promotional materials need to be first-class so that the trainees have a good impression. They need to look up to the program. All materials need to be first rate – professionally presented, organized, nicely copied – especially those distributed to trainees at the session.

Good food and lodging also reflects upon the quality of a program. Don't skimp; do something nice. Make sure it's convenience and everything is well-communicated.

A quality training program is well-organized. The trainees should not have to guess about anything. The trainers needs to make sure they know what's going on at all times – where it's going on – etc.

A good trainer will be sure to get trainees in the "right" frame of mind to receive information. This includes an ice-breaker exercise, humor, etc. A quality training program gets the people relaxed, feeling familiar and not intimidated.

Interviewee #1, continued

Are there any techniques that you use to get trainees feeling relaxed?

I put myself on their level. I don't look down or speak down to them. I tell stories about learning experiences I had when I was in their shoes. I want them to know that everyone makes mistakes and that's how we learn. Honest communication leads to a good training experience.

Also, training is about relationship-building. So, I take the time to understand who the trainees are. I get their demographic information (gender, age, experience, etc.) prior to the class so that I can customize the delivery to a degree. They're always impressed when they know that I've taken the time to learn something about each of them. I think they have more respect for me and therefore I'm able to be more effective as a trainer – the training is more effective.

After all these years, I think I "read" an audience pretty well. And, if they're not with me, I do something different. So, I guess quality training is flexible to the needs of the customers; they're always right.

How important is the instructor to the overall quality of a training program?

Very important. I'd say the instructor is 50% - the content is 25% - the destination, arrangements, etc. are 25%.

As an instructor, I'm conscious of my mannerisms. They can be very annoying and distracting in the delivery of training. For example – fidgeting, jingling change, wiping mouth, stuttering, saying "um," etc.

Interaction during training is also very important – between trainer and trainees, and between trainees. Getting them engaged and participating is very important to the quality of training delivered.

Is there anything else you can think of (related to quality of training) that we haven't yet discussed and should talk about?

No.

Interviewee #2: Trainer Date: Oct. 10, 2000
Background: Trainer for Virginia Tech
General Business Industry

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

Quality training understands and addresses the needs of the trainees. They're the client who is paying the bill.

Training needs to be customer-focused with the ability to be flexible and adjustable to different situations. Also, a good trainer knows how to roll with the punches when delivering training.

I try to do some exercises that give trainees insights into themselves. I think this provides a more receptive context within which they can assimilate information.

Empathy and credibility of the trainer go hand-in-hand to create a good training program. Trainees want to learn from people who have actually done what they're teaching. And, if a trainer has "walked the talk," then he'll be able to be empathetic to what the trainees encounter in their daily jobs.

Is there anything else you can think of regarding quality training?

Some feedback mechanism for reassessment is important. Trainees need to realize how much they're learned in the course of training.

The materials produced/distributed at training are very important. First, they must be professional to reflect well on the training. They should be designed so that they can be a useful resource after training is over.

It's important to get the trainees to interact; adult learners need to learn from each other. Small group exercises are always a good idea.

Of course, the room is very important to facilitate interaction. I like a U-shaped table for trainees. But, sometimes the only alternative is classroom style. The room should be very comfortable with full light; I don't like being in the dark. The trainees need a writing surface and I don't like amplification unless absolutely necessary.

Any final comments regarding quality of training?

I recall reading a book – the author escapes me – that talked about "teachable moments." The point was that the higher the relevance, the higher the teachability. I guess my final

Interviewee #2, continued

point is that trainees need to understand how the training applies to their situation; quality training is relevant to the trainees.

Interviewee #3: Trainer Date: Oct. 12, 2000
Background: Trainer and Training Researcher
General Business Industry

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

Interaction is critical. I say that interaction between trainees turns up the volume on training.

Quality training has to be relevant to be engaging. It should be enticing, provocative.

The training environment is very important. The trainer needs to set-up a framework of support. Other than supportive, the environment needs to have a flexible structure, with enough room to have some fun! I like trainees to move around in the space, and I always have "toys" on the tables for trainees to play with. Toys always generate interaction. The theories of andragogy talk about the need to engage, create, and calibrate.

I always get on the same level as the trainees. That's the only way to get the respect of the trainees and that's critical to a quality training program. The trainer has to be credible and credibility is established (or not) within the first 15 minutes. Credibility is not established by listing credentials; it lies in the rapport that is established between the trainees and trainer. The trainer has to give respect to get respect. "Image" is a barrier to training; accessibility is very important. Maybe these are all metaphors for empathy?

I try to really listen to trainees so that I can modify the training around their questions. The trainer and the training program need to be flexible enough to bend with the needs of the trainees.

I know training hits the mark when trainees have "a-ha's" in the course of training. I ask trainees to identify those moments and write them down on a flip chart.

Oh, I also steer away from technology in favor of flip charts, overheads, etc. I know many people disagree, but I think technology can be very distracting. I do not believe that technology defines a quality training program.

One thing I don't engage in is defending myself as a trainer or my training materials. Adults are always going to question aspects of the content, and I tell them to test it out and get back to me to let me know how it works. If it doesn't work (or it doesn't work for them), I'll consider amending it in future training sessions. I've learned not be get defensive, and never to argue with a trainee.

Interviewee #3, continued

I think trainees need to be comfortable in the environment. I focus a lot of effort on ensuring trainees' comfort during training. Also, the environment needs to be safe – from criticism, ridicule, etc.

Written materials need to be professional, but I don't spend a lot of time in this area. I generally give outlines, and trainees can take notes as they see fit. Also, I'd rather that trainees don't read the pre-training materials. I think they just give them an opportunity to formulate negative/critical questions as opposed to arriving at the training open-minded.

I always ask trainees to partner with another trainee and mutually agree upon three things that each with implement when back at work – and how they'll do it. Of course it's up to them, but I encourage them to stay in touch and be a support system for each other.

Can you think of any other components of quality training that we haven't talked about yet?

No.

Interviewee #4: Trainer Date: Oct. 20, 2000
Background: Training Director
Resort Company

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

"Caring" is a huge factor in quality training. Trainees need to know that their companies care about them, their job performances, their futures, etc. Then, they'll pay attention and want to apply training to their positions. We have to effectively communicate this caring component in all our training activities.

My philosophy is that good training builds a relationship with the employee.

I'm big on interaction, group dynamics, etc. I think training in the hospitality industry needs to be behaviorally based. Interactivity involves the senses.

It's critical to remove the fear factor from training. Quality training relates to trainees with empathy for their job situations/challenges. Comfort in the environment is about removing barriers. Informality is important.

Fun is essential! There's a strong entertainment component to quality training.

Training must be need-based - relevant to employees and their jobs.

Are there any other aspects of quality training that you can think of?

Tangibles are important, although pretty much of a given. I mean, the room needs to be a comfortable temperature, plenty of room to move about, comfortable chairs. Good food is very important, too.

Interviewee #5: Trainer Date: Nov. 11, 2000
Background: Training Director
Hotel Industry

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

Good food definitely signals quality training! Seriously, it is important. And, the room needs to be set properly. I like round tables.

The facilitator is very important. He/she needs to (1) be well-prepared, (2) know equipment, (3) be "on" – that is, enthusiastic, really "into" training topic. The trainer needs to be having fun, and he/she also needs to coordinate between any other people who may be leading sections. Fumbling around with technology is distracting – I had that experience recently and it was very embarrassing.

Trainees need time to discuss topics and share ideas. Adults bring a lot of experience, ideas, etc., and they need to be active participants in the training. Quality training is not about an instructor lecturing to a group. I always try to recap discussions to accentuate learning.

Fun is really important. I use games (sometimes unrelated to the topics) to break the ice, energize trainees, etc. Entertainment is a critical part of training – I try to coordinate activities with topics.

Breaks enhance training. I try to have two before lunch and two after lunch.

Can you think of anything else that defines quality training?

No.

Interviewee #6: Trainer Date: Nov. 11, 2000
Background: Loss Prevention Trainer
Hotel Industry

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

I mainly deal with OSHA training that's done annually for all our employees, and on-going safety training. We have anywhere from 10 to 50 people in a group and I think it's important to keep training short and simple.

The room needs to be comfortable for the trainees and there have to be refreshments. You shouldn't skimp on the refreshments because this signals employees that they're important and valued. Do something nice.

Quality training depends upon the goals being very clearly defined at the beginning of the session.

Using various media is important – mix things up to keep people's attention. Training has to be fun and interesting. And sometimes that a challenge considering the topics I teach. I try to get trainees to participate as much as possible; interaction helps to keep things exciting.

The person leading the training is very important to quality training. He/she should be (1) confident, (2) credible, (3) enthusiastic, and (4) have a great attitude. Delivery of training is really the key. The trainer has to be animated, positive, up-beat!

Is there anything else you can think of that contributes to the quality of training?

I think quality training should include an element of accountability. Trainees need to know that there is some type of enforcement or follow-up involved – this signals to them that the topic is important. Or, incentives are also attractive. Employees need to know that they're expected to use the information they're receiving.

Training (done right) sends a message to employees that says "we respect you and we appreciate you." I guess this is an intrinsic benefit besides improving performance on the job.

Written materials are important to reinforce what's reviewed in the training class. They don't have to be long, but they need to be professionally prepared and geared to the audience.

Interviewee #6, continued

Accessibility of the trainer after training is very important. I always encourage our trainees to contact me at any time they have questions, suggestions, a better way of doing things, etc. Being open to them improves my credibility and they're more apt to listen to what I have to say regarding safety, etc. Again, on-going availability says you care beyond a given class, etc. You are really vested in their success and the success of the organization.

Lastly, I think it's important to document training and/or the results of training. Regarding OSHA training, I always administer a 4-page exam whereby trainees can demonstrate their proficiency; of course, this is required by law.

Anything else that we should talk about?

Not that I can think of.

Interviewee #7: Trainee Date: Nov. 11, 2000
Background: Human Resource employee
Hotel Industry

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

The physical atmosphere is important (that is, comfortable, nice, etc.), and the mood should be relaxed.

Training is definitely two-way communication; lecturing to adults is not effective.

I like training that is well-organized. I don't want to guess what's going to happen next. I'm more likely to listen to a trainee the is professional and presents a well-organized session. If he doesn't seem to know what's going on, then I discount what he has to say.

The trainer also needs to be very knowledgeable so that he understands (can empathize with) the trainees jobs. Quality training allows the participants to learn from one another. Sometimes the trainers are so concerned with being the "all-knowing" that their egos don't allow trainees to participate in the process of training. This is a mistake. Again, two-way communication is best!

Content has to be applicable – trainees have to understand how this is going to help them in their jobs. Trainees have to be sold. They need to understand the benefits of training in order to capture their attention.

What else can you think of that contributes to quality of training?

The training needs to be divided into useful components for the trainees. And, breaks are helpful in this process. Also, food is important. Ice-breakers are good to get everyone feeling comfortable.

The layout of the room is very important so that it facilitates interaction among trainees.

I think good training accepts individual differences, comfort zones, etc. For example, some people are really uncomfortable speaking in front of a group – training shouldn't force them to do something that makes them anxious, nervous, etc. Don't' put people on the spot. It should be fun and not humiliating. Quality training respects individual learning styles and is adjustable to meet individual needs.

Getting back in touch with employees after training is very important. This signals a greater importance of the material and a greater caring on the part of the organization

and/or trainer. I recall that I was most impressed after one training session when the leader called me several weeks later to ask how the training was working out. That really signaled me that it was important to implement, and I tried a little harder. Also, follow-up with a trainee's supervisor would be very important.

Is there anything else you can think of that we haven't yet discussed?

No.

Interviewee #8: Trainee Date: Nov. 11, 2000
Background: Business Center Employee
Hotel Industry

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

I have to say that I really prefer hands-on training as opposed to classroom settings. I think I learn better that way . . . but, I have attended quite a few instructor-led sessions.

Even with classroom training, I think the best training is as real as possible – to the actual job scenario. This means role playing, active learning, etc. Small group work is good, and a casual, relaxed settings also help. I like training that allows time for dialogue, discussion among participants.

People have short attention spans and training sessions shouldn't go over 45 minutes to an hour without allowing for a short break.

If quality training means it actually gets used, then trainees need to know from the start that there will be follow-up and they will in some way be held accountable for the content.

Organization is really important – it should be linear so trainees know where the training is headed. Also, trainees should know how much time will be allotted to various topics.

The mood needs to be positive, upbeat, engaging. Trainees have to be motivated to participate. The leader has to be approachable if the trainees have questions; they shouldn't fear embarrassment.

What other components can you think of that define quality training?

The environment has to be conducive to learning. For example, comfortable seats, good lighting, and a comfortable temperature. Temperature is really important – you can't hold people's attention if they're freezing for burning up. Windows are nice; an interior room is boring. Also, a relaxed and casual atmosphere helps me learn.

I once attended management training where we had a buddy system. Instead of being accountable to the trainer, we were accountable to our buddy. We check-up on each other after the class ended. It was kind of nice.

I also like to feel that the trainer "cares." This makes me care more about learning whatever it is he or she is selling. It's up to the trainer to motivate trainees to apply the

material. Training is an investment in people! A great trainer will remember names and faces after the training is over. It's almost a parental thing.

Good training also respects the knowledge that the trainees bring with them. I think a really talented trainer can quickly assess the leaders within a group – it's smart to assign them additional responsibilities – like leading a small group, etc.

Can you think of anything else that we should talk about?

No.

Interviewee #9: Trainee Date: Nov. 11, 2000
Background: At Your Service Employee,
Hotel Industry

The purpose of our interview is to discuss the key components that, in your opinion, determine the "quality" of a training program. And, we're defining training in terms of an instructor-led classroom setting. Please feel free to express your thoughts and I may interject questions regarding any statements that need clarification or further exploration.

Presentation is really important – quality training is definitely interactive as opposed to a lecture format.

The person leading the class needs to be an expert speaker in addition to knowing the material.

The person also needs to be well-organized, and the training well-planned.

Written materials are important to the degree that they need to be prepared to support what's discussed. Pre-training materials should set a clear expectation of what the course will cover, etc.

Is there anything else you can think of that determines the quality of training? Perhaps elaborating on the facilitator?

The trainer needs to "sell" the participants on the value of the training. Why is it important? The person needs to be knowledgeable, credible, and an "entertainer." They need to be able to work the crowd to get everyone involved and engaged.

The physical space needs to provide comfort, and it should be large enough for everyone to work comfortably.

I recently attended a supervisory skills management class, and what really impressed me was the trainer's concern that we learned the material and applied it to our jobs. She seemed to really believe that it could help us and it was important to her that we all succeeded.

Is there anything else you can think of that we should discuss?

No.

Appendix B

QUALITY OF TRAINING QUESTIONNAIRE
Content Assessment

Instructions: Nine determinants of training quality are defined on the left-hand side of the page. On the right-hand side are items that help to support or more fully explain each of the nine determinants. First read through all of the determinants, and then fill-in the blanks preceding each item at the right with the letter of the determinant (A-I) to which it most closely corresponds. Thank you, in advance, for your thoughtful assistance.

A. Training is applicable and useful to the trainee in doing his/her job.

B. Training is believable; information is based upon knowledge and experience.

C. Training is entertaining; it engages trainees and holds their attention.

D. Training actively involves trainees in the training process.

E. Training includes physical or material components.

F. Training is systematic and orderly.

G. Training mood creates ease, comfort.

H. Training respects and shows concern for trainees.

I. Training holds trainees answerable for content once they are back on the job.

1. ___ Trainees feel relaxed in environment

2. ___ Trainer is open to questions

3. ___ Environment is emotionally comfortable for trainees

4. ___ Trainer addresses trainees on their level

5. ___ Honest communication occurs during training

6. ___ Training segments are short

7. ___ Seating arrangement in training room facilitates interaction

8. ___ Training includes ice-breaker exercises

9. ___ Trainees know sequence of training

10. ___ Trainees learn from each other

11. ___ Frequent breaks are scheduled into training schedule

12. ___ Trainer has done trainees' job

13. ___ Training includes role playing exercises

14. ___ Training environment is informal

Questionnaire, page 2

A. Training is applicable and useful to the trainee in doing his/her job.

B. Training is believable; information is based upon knowledge and experience.

C. Training is entertaining; it engages trainees and holds their attention.

D. Training actively involves trainees in the training process.

E. Training includes physical or material components.

F. Training is systematic and orderly.

G. Training mood creates ease, comfort.

H. Training respects and shows concern for trainees.

I. Training holds trainees answerable for content once they are back on the job.

15. ___ Training environment is casual

16. ___ Excellent refreshments are provided during training

17. ___ Trainer is knowledgeable

18. ___ Training is fun

19. ___ Excellent lodging accommodations are provided for trainees

20. ___ Written training materials are professionally prepared

21. ___ Trainer presents topic enthusiastically

22. ___ Trainees know how much time will be allotted to various topics

23. ___ Trainees are at ease in training environment

24. ___ Excellent food is provided during training

25. ___ Trainees are active participants in training

26. ___ Trainers show personal interest in trainees

27. ___ Training includes mechanism to follow-up with trainees after training concludes

28. ___ Trainees are assigned a buddy and they help each other implement training when back on the job

29. ___ Training includes activities to accompany topics

30. ___ Trainees understand rewards of implementing training

A. Training is applicable and useful to the trainee in doing his/her job.

B. Training is believable; information is based upon knowledge and experience.

C. Training is entertaining; it engages trainees and holds their attention.

D. Training actively involves trainees in the training process.

E. Training includes physical or material components.

F. Training is systematic and orderly.

G. Training mood creates ease, comfort.

H. Training respects and shows concern for trainees.

I. Training holds trainees answerable for content once they are back on the job.

31. ___ Lighting level in training room allows for ease of reading and writing

32. ___ Training features small group work

33. ___ Trainer remembers trainees' names

34. ___ Training includes use of games

35. ___ Training is well-planned

36. ___ Goals of training are clearly explained to trainees

37. ___ A clear purpose for training is stated

38. ___ Training presents realistic picture of the job

39. ___ The temperature in the training room is comfortable

40. ___ Trainees commit to how they'll incorporate training once back at jobs

41. ___ Trainer has great attitude

42. ___ Trainer operates on the same level as trainees

43. ___ Training conveys sense of caring to trainees

44. ___ Layout of training room allows for ease of movement

45. ___ Training is based upon needs of trainees

46. ___ Trainees are told "why" training is important

47. ___ Training includes humor

48. ___ Trainer expresses concern that trainees learn content

Appendix C

TRAINING QUESTIONNAIRE

This survey deals with your expectations and perceptions regarding aspects of instructor-led training. Responses are completely anonymous, and the researchers thank you, in advance, for your time.

I. EXPECTATIONS OF TRAINING
Instructions: Indicate the extent to which you think training should possess the features described by each statement, by circling one of the numbers to the right (1=strongly disagree to 5=strongly agree).
Please consider an instructor-led training format when responding, and answer all questions.

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
E01.	Training should directly relate to trainees' jobs	1	2	3	4	5
E02.	Trainees should be told "why" training is important	1	2	3	4	5
E03.	Training should realistically mirror the trainees' jobs	1	2	3	4	5
E04.	Training should be based upon the needs of trainees	1	2	3	4	5
E05.	Trainer should be knowledgeable regarding the content	1	2	3	4	5
E06.	Training should be developed by people who have done the trainees' jobs	1	2	3	4	5
E07.	Trainer should be confident	1	2	3	4	5
E08.	Trainer should candidly relate his/her work experiences	1	2	3	4	5
E09.	Training should incorporate humor	1	2	3	4	5
E10.	Training should include the use of games	1	2	3	4	5
E11.	Training should be fun	1	2	3	4	5
E12.	Trainer should be enthusiastic	1	2	3	4	5
E13.	Training should involve active learning	1	2	3	4	5
E14.	Trainees should learn from each other	1	2	3	4	5

(OVER)

Questionnaire, page 2

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
E15.	Training should include small group work	1	2	3	4	5
E16.	Trainees should be active participants in training	1	2	3	4	5
E17.	Written materials should be professionally prepared	1	2	3	4	5
E18.	Quality food and beverage service should be provided during training	1	2	3	4	5
E19.	Training should be conducted in a quality facility	1	2	3	4	5
E20.	Training room should be geared to the physical comfort of trainees	1	2	3	4	5
E21.	Training should be well-planned	1	2	3	4	5
E22.	Trainees should know how much time will be allotted to each topic	1	2	3	4	5
E23.	Training segments should be divided by frequent short breaks	1	2	3	4	5
E24.	Trainees should be informed regarding the sequence of training	1	2	3	4	5
E25.	Trainees should feel relaxed during training	1	2	3	4	5
E26.	Training environment should be informal	1	2	3	4	5
E27.	Mood during training should be supportive of trainees	1	2	3	4	5
E28.	Training should provide a safe (e.g. free from criticism) environment for trainees	1	2	3	4	5
E29.	Trainer should remember trainees names	1	2	3	4	5
E30.	Training should convey a sense of caring to the trainees	1	2	3	4	5
E31.	Trainer should show a personal interest in the trainees	1	2	3	4	5

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
E32.	Trainer should express appreciation for the work experience of trainees	1	2	3	4	5
E33.	Training should be designed to follow-up with trainees after they return to work	1	2	3	4	5
E34.	Trainees should plan during training how they will use new skills/knowledge once back at work	1	2	3	4	5
E35.	Training should outline the rewards for using training on the job	1	2	3	4	5
E36.	Training should include a test of learning	1	2	3	4	5

II. PERCEPTIONS OF TRAINING

Instructions: Indicate the extent to which you think the training you just completed possessed the features described by each statement, by circling one of the five numbers to the right (1=strongly disagree to 5=strongly agree). Please answer all questions.

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
P01.	Training directly related to my job	1	2	3	4	5
P02.	I was told “why” the training was important	1	2	3	4	5
P03.	The training realistically mirrored my job	1	2	3	4	5
P04.	Training was based upon my needs	1	2	3	4	5
P05.	Trainer was knowledgeable regarding content	1	2	3	4	5
P06.	Training was developed by people who once did my job	1	2	3	4	5
P07.	Trainer was confident	1	2	3	4	5
P08.	Trainer candidly related his/her work experiences	1	2	3	4	5
P09.	Training incorporated humor	1	2	3	4	5
P10.	Training included the use of games	1	2	3	4	5

(OVER)

Questionnaire, page 4

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
P11.	Training was fun	1	2	3	4	5
P12.	Trainer was enthusiastic	1	2	3	4	5
P13.	Training involved active learning	1	2	3	4	5
P14.	I learned from the other trainees	1	2	3	4	5
P15.	Training included small group work	1	2	3	4	5
P16.	I was an active participant in training	1	2	3	4	5
P17.	Written materials were professionally prepared	1	2	3	4	5
P18.	Quality food and beverage service was provided during training	1	2	3	4	5
P19.	Training was conducted in a quality facility	1	2	3	4	5
P20.	Training room was geared to the physical comfort of trainees	1	2	3	4	5
P21.	Training was well-planned	1	2	3	4	5
P22.	I knew how much time would be allotted to each topic during training	1	2	3	4	5
P23.	Training segments were divided by frequent short breaks	1	2	3	4	5
P24.	I knew the sequence of training	1	2	3	4	5
P25.	I felt relaxed during training	1	2	3	4	5
P26.	Training environment was informal	1	2	3	4	5
P27.	Mood during training was supportive	1	2	3	4	5
P28.	I felt safe (e.g. free from criticism) during training	1	2	3	4	5
P29.	Trainer addressed me by name	1	2	3	4	5

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
P30.	Training conveyed a sense of caring	1	2	3	4	5
P31.	Trainer expressed a personal interest in me and the other trainees	1	2	3	4	5
P32.	Trainer expressed appreciation for my previous work experience	1	2	3	4	5
P33.	I expect some follow-up to the training after I return to work	1	2	3	4	5
P34.	During training, I planned how I am going to use my new skills/knowledge when back at work	1	2	3	4	5
P35.	The rewards for using acquired skills/knowledge when back on the job were explained	1	2	3	4	5
P36.	Training included a test to evaluate what I learned	1	2	3	4	5

III. INTENTION TO USE TRAINING

Instructions: Indicate your intentions to apply the skills/knowledge you have just acquired when you return to your job, by circling one of the five numbers to the right (1=strongly disagree to 5=strongly agree).

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
T01.	I plan to use the skills/knowledge I acquired here when back on the job	1	2	3	4	5
T02.	The skills/knowledge I acquired here will be useful to me in my current role	1	2	3	4	5
T03.	The skills/knowledge I acquired here will improve my job performance	1	2	3	4	5

Thank you again for your time and input!

Appendix D

TRAINING QUESTIONNAIRE

Part I

This is the first part of a two-part questionnaire designed to assess your expectations of instructor-led training. It was not generated through your workplace, but rather it is part of dissertation research that will lead to a doctoral degree. Your input is vital to the successful completion of this process, and therefore we are asking you to help us by filling-out the two questionnaires. You will receive the second questionnaire regarding perceptions of training at the end of the upcoming session.

Since we will need to match your responses on the two questionnaires and we also want to insure your anonymity, **PLEASE SELECT ONE "CODE NAME" TO USE ON BOTH QUESTIONNAIRES**. This can be any name that is easy for you to remember. Your responses will be pooled with information gathered from employees of other hospitality organizations. Collective results will be reported, but individual responses will be held in strict confidence by researchers at Virginia Tech.

Please proceed to the next page and begin by entering your code name.

Thank you again for your time and important contribution to this research!

TRAINING QUESTIONNAIRE **CODE NAME: _____**

Please answer every question and mark only one response per question. There are no right or wrong answers; we are only interested in your opinions.

SECTION I. EXPECTATIONS OF TRAINING

Instructions: Please indicate the extent to which you agree that instructor-led training should possess the feature described in each statement by circling one of the five numbers to the right of the statement (1="strongly disagree" to 5="strongly agree").

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
1.	Training should directly relate to trainees' jobs	1	2	3	4	5
2.	Trainees should be told "why" training is important	1	2	3	4	5
3.	Training should realistically mirror the trainees' jobs	1	2	3	4	5
4.	Training should be based upon the needs of trainees	1	2	3	4	5
5.	Trainer should be knowledgeable regarding the content	1	2	3	4	5
6.	Training should be developed by people who have done the trainees' jobs	1	2	3	4	5
7.	Trainer should be confident	1	2	3	4	5
8.	Trainer should candidly relate his/her work experiences	1	2	3	4	5
9.	Training should incorporate humor	1	2	3	4	5
10.	Training should be fun	1	2	3	4	5
11.	Trainer should be enthusiastic	1	2	3	4	5
12.	Training should involve active learning	1	2	3	4	5
13.	Trainees should learn from each other	1	2	3	4	5
14.	Training should include small group work	1	2	3	4	5
15.	Quality food and beverage service should be provided during training	1	2	3	4	5
16.	Training should be conducted in a quality facility	1	2	3	4	5

(CONTINUED)

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
17.	Training room should be geared to the physical comfort of trainees	1	2	3	4	5
18.	Trainees should know how much time will be allotted to each topic	1	2	3	4	5
19.	Training segments should be divided by frequent short breaks	1	2	3	4	5
20.	Trainees should be informed regarding the sequence of training	1	2	3	4	5
21.	Trainees should feel relaxed during training	1	2	3	4	5
22.	Training environment should be informal	1	2	3	4	5
23.	Mood during training should be supportive of trainees	1	2	3	4	5
24.	Training should provide a safe (e.g. free from criticism) environment for trainees	1	2	3	4	5
25.	Trainer should remember trainees names	1	2	3	4	5
26.	Trainer should show a personal interest in the trainees	1	2	3	4	5
27	Trainer should express appreciation for the work experience of trainees	1	2	3	4	5
28.	Training should be designed to follow-up with trainees after they return to work	1	2	3	4	5
29.	Training should outline the rewards for using training on the job	1	2	3	4	5
30.	Training should include a test of learning	1	2	3	4	5

SECTION II. PERSONAL INFORMATION

Instructions: Please check the response that best applies to you.

1. What is your gender?

___ female
___ male

2. What is your age?

___ under 18 years
___ 18 to 25 years
___ 26 to 35 years
___ 36 to 45 years
___ 46 to 55 years
___ 56 years or older

(CONTINUED)

3. How long have you been with your current company?

___ less than 6 months
___ 6 months to 1 year
___ more than 1 but less than 3 years
___ 3 to 6 years
___ more than 6 but less than 10 years
___ 10 or more years

4. How long have you been in your current position?

___ less than 6 months
___ 6 months to 1 year
___ more than 1 but less than 3 years
___ 3 to 6 years
___ more than 6 but less than 10 years
___ 10 or more years

5. How many jobs have you held in the past five years?

_____

___ 1 job
___ 2 jobs
___ 3 jobs
___ 4 jobs
___ 5 jobs
___ more than 5 jobs

6. How many instructor-led training sessions have you attended in the past five years?

___ Only the current training session
___ 2 training sessions
___ 3 training sessions
___ 4 training sessions
___ 5 training sessions
___ more than 5 training sessions

7. How satisfied are you in your current position?

___ very dissatisfied
___ somewhat dissatisfied
___ neither dissatisfied nor satisfied
___ somewhat satisfied
___ very satisfied

8. How likely is it that you will leave your current position within the next three months?

___ very unlikely
___ somewhat unlikely
___ neither unlikely nor likely
___ somewhat likely
___ very likely

9. Which of the following best applies to your attendance at this training session?

___ I was required to attend this training session
___ I elected to attend this training session

PLEASE WRITE DOWN YOUR CODE NAME IN A LOCATION THAT IS ASSESSIBLE TO YOU. YOU WILL NEED TO USE THE SAME NAME ON THE SURVEY YOU RECEIVE IMMEDIATELY AFTER TRAINING CONCLUDES. THANK YOU AGAIN FOR YOUR TIME AND INPUT.

TRAINING QUESTIONNAIRE

Part II

This is the second part of a two-part questionnaire designed to assess your perceptions of instructor-led training.

Since we need to match your responses on the two questionnaires, please proceed to the next page and **BEGIN BY ENTERING THE SAME "CODE NAME" THAT YOU USED ON PART I OF THIS QUESTIONNAIRE.** Your responses are completely anonymous, and researchers will report cumulative, not individual, results.

Again, your honest opinions are vital to this research. Thank you very much for your time.

TRAINING QUESTIONNAIRE **CODE NAME: _____**

Please answer every question and mark only one response per question. There are no right or wrong answers; we are only interested in your opinions.

SECTION I. PERCEPTIONS OF TRAINING

Instructions: Indicate the extent to which you agree that the instructor-led training you just completed possessed the feature described in each statement by circling one of the five numbers to the right of the statement (1="strongly disagree" to 5="strongly agree").

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
1.	Training directly related to my job	1	2	3	4	5
2.	I was told "why" training was important	1	2	3	4	5
3.	The training realistically mirrored my job	1	2	3	4	5
4.	Training was based upon my needs	1	2	3	4	5
5.	Trainer was knowledgeable regarding content	1	2	3	4	5
6.	Training was developed by people who once did my job	1	2	3	4	5
7.	Trainer was confident	1	2	3	4	5
8.	Trainer candidly related his/her work experiences	1	2	3	4	5
9.	Training incorporated humor	1	2	3	4	5
10.	Training was fun	1	2	3	4	5
11.	Trainer was enthusiastic	1	2	3	4	5
12.	Training involved active learning	1	2	3	4	5
13.	I learned from the other trainees	1	2	3	4	5
14.	Training included small group work	1	2	3	4	5
15.	Quality food and beverage service was provided during training	1	2	3	4	5
16.	Training was conducted in a quality facility	1	2	3	4	5
17.	Training room was geared to the physical comfort of trainees	1	2	3	4	5
18.	I knew how much time would be allotted to each topic during training	1	2	3	4	5

(CONTINUED)

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
19.	Training segments were divided by frequent short breaks	1	2	3	4	5
20.	I knew the sequence of training	1	2	3	4	5
21.	I felt relaxed during training	1	2	3	4	5
22.	Training environment was informal	1	2	3	4	5
23.	Mood during training was supportive	1	2	3	4	5
24.	I felt safe (e.g. free from criticism) during training	1	2	3	4	5
25.	Trainer addressed me by name	1	2	3	4	5
26.	Trainer expressed a personal interest in me and the other trainees	1	2	3	4	5
27	Trainer expressed appreciation for my previous work experience	1	2	3	4	5
28.	I expect some follow-up to the training after I return to work	1	2	3	4	5
29.	The rewards for using acquired skills/knowledge when back on the job were explained	1	2	3	4	5
30.	Training included a test to evaluate what I learned	1	2	3	4	5

SECTION II. USEFULNESS OF TRAINING

Instructions: Indicate the extent to which you agree with the following statements regarding the usefulness of the training you just completed by circling one of the five numbers to the right of the statement (1="strongly disagree" to 5="strongly agree").

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
1.	I plan to use the skills/knowledge I acquired here when back on the job	1	2	3	4	5
2.	The skills/knowledge I acquired here will be useful to me in my current role	1	2	3	4	5
3.	The skills/knowledge I acquired here will improve my job performance	1	2	3	4	5

(CONTINUED)

SECTION III. OVERALL RATING OF TRAINING

Instructions: Indicate your evaluation of the overall quality of training just completed by circling one of the ten numbers to the right of the statement (1="poor" to 10="excellent").

	Poor									Excellent
Rating of overall quality of training	1	2	3	4	5	6	7	8	9	10

SECTION IV. OVERALL APPLICATION OF TRAINING

Instructions: Indicate your intention to apply training by answering the following question.

What percent of the training you just completed do you plan on applying to your job when you return to work?

_____ %

SECTION V. IMPORTANCE OF FEATURES OF TRAINING

Instructions: We would like to know how important each of the following features is to you when you attend an instructor-led training session. Allocate a total of 100 points to the nine features listed below according to how important each feature is to you - the more important a feature is to you, the more points you should allocate to it. Please ensure that the points you assign to the nine features add up to 100.

Features	Number of points
1. The believability of training; confidence that the information is truthfully based upon knowledge and experience	_____
2. The fun or engaging aspect of training that holds the attention of trainees	_____
3. The active involvement of trainees in the training process	_____
4. The various physical or material components of training (e.g. food and beverage service, meeting room arrangements, etc.)	_____
5. The applicability and/or usefulness of training to trainees' jobs	_____
6. The systematic and/or orderly presentation of training	_____
7. The surrounding condition or prevailing mood of the training environment	_____
8. The accountability component that holds trainees answerable for the training content once they are back at their jobs	_____
9. The respect and concern shown during training for the well-being of the trainees	_____
Total (must equal 100 points)	_____

THANK YOU AGAIN FOR YOUR TIME AND VALUABLE CONTRIBUTION!

APPENDIX E

PERCEIVED QUALITY OF TRAINING SCALE

Instructions: Indicate the extent to which you think the training you just completed possessed the features described by each statement, by circling one of the five numbers to the right (1=strongly disagree to 5=strongly agree). Please answer all questions.

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
1.	Training directly related to my job	1	2	3	4	5
2.	I was told "why" the training was important	1	2	3	4	5
3.	The training realistically mirrored my job	1	2	3	4	5
4.	Training was based upon my needs	1	2	3	4	5
5.	Trainer was knowledgeable regarding content	1	2	3	4	5
6.	Training was developed by people who once did my job	1	2	3	4	5
7.	Trainer was confident	1	2	3	4	5
8.	Trainer candidly related his/her work experiences	1	2	3	4	5
9.	Training incorporated humor	1	2	3	4	5
10.	I learned from the other trainees	1	2	3	4	5
11.	Training included small group work	1	2	3	4	5
12.	Training was conducted in a quality facility	1	2	3	4	5
13.	Training room was geared to the physical comfort of trainees	1	2	3	4	5
14.	Training segments were divided by frequent short breaks	1	2	3	4	5
15.	I felt relaxed during training	1	2	3	4	5
16.	Training environment was informal	1	2	3	4	5
17.	Mood during training was supportive	1	2	3	4	5
18.	I felt safe (e.g. free from criticism) during training	1	2	3	4	5
19.	Trainer expressed a personal interest in me and the other trainees	1	2	3	4	5

Questionnaire, page 2

		strongly disagree	disagree	neither agree/ disagree	agree	strongly agree
20.	Trainer expressed appreciation for my previous work experience	1	2	3	4	5
21.	I expect some follow-up to the training after I return to work	1	2	3	4	5
22.	Training included a test to evaluate what I learned	1	2	3	4	5

VITA

Candice E. Clemenz

Education

Ph.D., Hospitality and Tourism Management, Virginia Polytechnic Institute & State University, May 2001

M.S., Food Service and Lodging Administration, The University of Tennessee, December 1993

B.S., Food and Nutrition/Dietetics, The Florida State University, June 1975

Teaching Experience

August 1996 to Present
Instructor, Virginia Polytechnic Institute and State University
Full-time 12-month appointment in The College of Human Resources and Education's Department of Hospitality and Tourism Management teaching Food and Beverage Management, Catering Management, Human Resources, and Club Management courses

August 1995 to May 1996
Adjunct Lecturer, The University of North Texas
Taught a three hour Retail Buying course for the Marketing Department in the College of Business

January 1992 to May 1992
Adjunct Lecturer, The University of Tennessee
Taught a three hour course in Personnel Development to Food Service/Lodging students in The School of Human Ecology

January 1980 to December 1980
Adjunct Lecturer, Florida State University
One year assignment to teach Institutional Food Production and Management, lecture and lab

Industry Experience

August 1994 to September 1996
Vice-President of Development, ClubCorp
Responsible for the successful development/opening of new and acquired club properties throughout the U.S. as well as heading turn-around efforts in troubled properties

Industry Experience, continued

June 1990 to August 1994
Director of Marketing, Club Corporation of America, N.E.
Responsible for $170 million in annual revenue produced by 62 clubs in the areas of membership, catering, golf, tennis, and athletics, with supervision of a staff of eight who trained and supported field personnel

July 1986 to June 1990
Marketing Manager, Club Corporation of America, Central
Assisted 35 clubs to achieve success in areas of membership and catering, with responsibility for hiring and training of salesforce, region-wide promotions, and public relations

August 1981 to July 1986
Director of Catering, Houston City Club and Plaza Club
Worked with members of private clubs to plan their personal and corporate entertaining

Publications/ Presentations

Kim, S., Clemenz, C., and Weaver, P. (2001). A Market Segmentation Study Based on Golfers' Service Attitude. Fourth Annual Graduate Student Research Day, College of Human Resources and Education, Virginia Tech.

Chu, K., Weaver, P., and Clemenz, C. (2001). Do Hospitality Programs Provide Restaurant Experiences Commensurate with Local Dining Options? A Survey of Overall Dining Perceptions at the Old Guard Restaurant. Fourth Annual Graduate Student Research Day, College of Human Resources and Education, Virginia Tech.

Clemenz, C., Weaver, P., and Kim, S. (2001). Sponsored Research: Par for the Course in Hospitality Education. Profiling Golfers Per Their Attitudes Toward Food and Beverage Service Offered During Play. Graduate Education and Graduate Students Research Conference in Hospitality and Tourism Proceedings (refereed, poster session), Atlanta, Georgia.

Weaver, P., Chu, K., and Clemenz, C. (accepted for publication). Do Hospitality Programs Provide Restaurant Experiences Commensurate with Local Dining Options? Hospitality Educator.

Clemenz, C., Weaver, P., and Gore, F. (December 2000). ClubCorp Goes to School: Developing a Computer-based Training Program. Cornell Hotel and Restaurant Administration Quarterly, 41 (6).

Publications/ Presentations,

Clemenz, C. and Weaver, P. (2000). Evaluation of the Quality of Training and its Effect on Training Transfer. Third Annual Graduate Student Research Day, College of Human Resources and Education, Virginia Tech.

Clemenz, C. and Weaver, P., (2000). The Assessment of Training Quality and its Effect on Training Transfer in a Service Industry. Graduate Education and Graduate Students Research Conference in Hospitality and Tourism Proceedings(refereed), Houston, Texas.

Clemenz, C. and Weaver, P., (1999). The Demonstration and Discussion of the Development of a Multimedia Training CD-ROM for a Private Club Corporation. Hospitality Research Journal, Annual Conference Proceedings (refereed), Albuquerque, New Mexico.

Clemenz, C. and Weaver, P., (1999). Applied Research: Development of Computer-based Soft Skills Training for the Hospitality Industry. 15th Annual Research Symposium Proceedings (poster session), Virginia Tech.

Clemenz, C. and Weaver, P. (1999). An Overview of a Multimedia Training CD-ROM, Developed as a Collaborative Effort Between Academia and a Private Club Corporation. Graduate Education and Graduate Students Research Conference in Hospitality and Tourism Proceedings (refereed), Las Vegas, Nevada.

Clemenz, C. and Lattimer, C., (1999). Board of Governors: The Cornerstone of a Fine Private Club. Multimedia Training CD-ROM, proprietary product developed for ClubCorp International.

Clemenz, C., Costello, C., and McGrath, M. (1994) Perceptions of Current Managers Regarding the Coursework Necessary for a Career as a Club Manager. Hospitality Research Journal, Annual Conference Proceedings (refereed), Palm Springs, California.

Funded Research

Grant sponsored by Anheuser Busch Company, (2000). Exploration of the Golf Channel of Distribution for the Purpose of Establishing "Best Practices" Regarding Maximization of Beverage Sales.

Service Activities (Virginia Tech)	HTM Department's Academic Career Advisor, 1996 to present HTM "Executive in Residence" Speaker Series, Program Coordinator, 1997 to present College of Human Resources and Education's Diversity Committee, Member, 1997 to present HTM Department's Scholarship Committee, Chair, 1998 to present HTM Food and Beverage Ad Hoc Committee, Member, 1999 University Graduate Honor Court, Faculty Rep, 1997 to 1999 Search Committee for Instructor Position, Chair, 1997-1998
Memberships in Professional Societies	Club Managers Association of America Council for Hotel, Restaurant and Institutional Education
Honors/Awards	Graduate Degree Scholarship, Educational Foundation of the American Restaurant Association, 1999-2000 H. J. Heinz Graduate Degree Fellowship, Educational Foundation of the American Restaurant Association, 1998-1999 Phi Kappa Phi, honor society, 1998 Nominee for College Certificate of Teaching Excellence, College of Human Resources and Education, Virginia Tech, 1997 Kappa Omicron Nu, honor society, 1993 National Special Achievement Award, ClubCorp, 1991 Regional Special Achievement, ClubCorp, 1991, 1989, 1986, 1985 Who's Who Among Students in American Colleges and Universities, 1975