Transfer Initiation and Maintenance of Training: Employees' Perception of the Relative Influences of Transfer Intentions, General Self-efficacy (GSE) and Supervisor Support

by

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(ABSTRACT)

Allocating money and resources to improve employees' performance can be costly. The 2008 Industry Report of ASTD (formerly the American Society for Training and Development) showed that U.S. organizations spent $134.39 billion on employee learning and performance. Because learning and development are expensive, time consuming and often disruptive for workflow, training professionals need to show credible and sustainable methods for proving the value of their training programs.

This research study examines the effects of employees' perceptions of transfer intentions, General Self-efficacy (GSE) and supervisor support to better identify the conditions for actual transfer. An increased understanding of the conditions of transfer provided a new perspective for a county government agency. Data were collected immediately after training and later in the work environment from 36 subjects who participated in a three-day Employee Leadership Institute (ELI) in December 2007. The study built upon and extended existing data collected in December 2006, March 2007, and September 2007. The data analysis approach consisted of Chi-square computation, Analysis of Variance (ANOVA), bivariate correlation and hierarchical regression analysis. SPSS was used to conduct the data analysis.

The results suggest that General Self-efficacy (GSE) was the most important influence on transfer intentions up to six months after ELI. Then, transfer intentions was a better predictor than supervisor support and GSE to significantly influence the actual initiation of skills on the job obtained from ELI at six, nine months and one year. Once employees actually attempted to apply skills on the job, transfer intentions was a better predictor at six months for maintaining those skills over time (transfer maintenance); however, transfer initiation was a better predictor at nine months and one year. Due to a small sample size and self-reported data, the study results should be interpreted with some caution.

DEDICATION

To:

My mother, Mercie “Merk” Powell, who has always believed in me, words cannot explain the gratitude that I have for her. She has worked hard all her life so that I would have a better life and better opportunities. I Thank GOD every day for allowing me to be her son!

My father-in-law, Brahm Tej Bhardwaj: AKA “My Bapu”, he is always excited about any of my accomplishments and his excitement, wisdom, fatherly and lovingly support over the past 15 years have always motivated me to do my best! He has taught me some good lessons about life that will be with me forever and I am extremely lucky to have him as “My Bapu!”

My mother-in-law, Chander K. Bhardwaj: AKA “Ma”, whenever I am nervous, she always seems to put me at ease with the words “Don’t worry beta, GOD help them who help themselves, I love you”. Only “Ma” and I will understand the impact of these words.

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My wife, Minni: AKA “My Life.” She has loved, encouraged, sacrificed, and supported me every step of the way. She is my conscious, my guiding light, my “Everything” and I am extremely fortunate to have married my soul mate.

kabhii kabhii mere dil me.n khayaal aata hai
ki jaise tujhko banaaya gaya hai mere li'e
tuu ab se pahale sitaaro.n me.n bas rahii thii kahii.n
tujhe zamiin pe bulaaya gaya hai mere li'e...

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CHAPTER 1: INTRODUCTION

Transfer of training refers to the application of knowledge or skills acquired during training to the job (Broad & Newstrom, 1992; Gradous, 1991; Wexley & Latham, 1981). Broad and Newstrom (1992) contend, "Most training investments do not produce full and sustained transfer of new knowledge and skills to the job" (p. 7). Scholars and practitioners indicate that the major goal of training is the immediate improvement in performance or the transfer of learned knowledge and skills to the workplace (Richey, 1992; Schmidt & Bjork, 1992). U. S. companies continue to spend large amounts of time and money pursuing this goal (Huerta, Audet, & Peregort, 2006).

According to the training literature, spending money and allocating resources to improve employees' performance can be costly. The 2008 Industry Report of ASTD (formerly the American Society for Training and Development) showed that U.S. organizations spent $134.39 billion on employee learning and development (Anonymous, 2008). Still, scholars and practitioners suggest that only ten percent of these training expenditures result in transfer of training to the job (Georgenson, 1982; Smith-Jentsch, Salas, & Brannick, 2001).

Because learning and development are expensive, time consuming and often disruptive for workflow, training professionals need to show credible and sustainable methods for demonstrating the value of their training programs (Phillips & Elkeles, 2006). Before an organization invests time and money in training, it wants to be sure that: (a) the content/exercises/initiatives done during training are relevant to the employee's job, and (b) those skills learned can be applied back on the job (Gass, Goldman, & Priest, 1992). The effectiveness of the training must be evaluated to validate whether training is producing the desired outcomes. Kirkpatrick (1998) suggests that all organizations evaluate participants' reaction, but this level of evaluation provides little information on the training event's effectiveness. Evaluation of learning solely at the end of the training event shows only whether the participant has learned the training content, not whether he/she can or will use

the knowledge and skills learned from the content on the job to improve performance (Carnevale & Schulz, 1990; Jones, 1995). Further levels of evaluation may be conducted to determine the training's influence or impact and the improvement of organizational performance along with possibly measures of Return on Investment (ROI). However, these would depend on determining that trainees had actually applied their learning on the job (Phillips & Stone, 2002). In conclusion, many organizations evaluate the effectiveness of training by measuring the participants' reaction to training or learning gained from training but very few organizations measure whether learning transferred to the work environment (Kraiger, McLinden, & Casper, 2004).

Statement of the Problem

As a learning consultant, I work with adult learners in an organizational setting with the ultimate goal to help increase their job performance through training and development. I was concerned that learning gained in the classroom was not being fully applied back in the work environment. In order to better identify transfer and/or measure whether or not it had been applied on the job, I set out to learn about the theories and models guiding transfer.

The concept of transfer emerged from evaluation models by experts, such as Stufflebeam (1971), looking at the effectiveness of training (Russ-Eft & Preskill, 2001); however, attempting to define transfer in terms of the post-course application of the training is problematic and raises many questions. For example, what constitutes the moment of transfer? Is there such a point in time? Is there a time continuum for transfer? Or are there degrees of transfer? Do attempts to apply the training constitute transfer, or must the training be fully integrated into an individual's work patterns before one can say transfer has occurred? Some consider transfer has occurred if post-training levels of performance are comparable to or greater than those attainable by on-the-job training (Cormier, 1987). Others look for proof of transfer not so much in what the learners are doing back on the job,

but at the original performance problem prompting the training (Broad, 1982). If the original performance problem has been positively impacted, transfer is said to have occurred. For these reasons, many educators and practitioners view transfer as a training product or outcome, meaning that it has occurred or it has not occurred. This perspective assumes that such an outcome can be identified and measured. This may be the case with technical skills. However, in the case of intellectual skills, there is no consensus on how transfer can be identified, since the degree and time of application of such skills will vary from person to person (Foxon, 1995).

Some researchers differentiate between whether the trained behavior or skill is attempted on the job after training (initiation of transfer) and whether it is continually exhibited at a consistent level of performance over time (maintenance of transfer) (Laker, 1990). Other researchers distinguish between generalization and maintenance of behavior (Baldwin & Ford, 1988; Laker, 1990). Generalization is considered to have occurred when individuals take the information provided by the training program and use it in a context significantly different from the one in which it was acquired (i.e., the job context) or modify the behavior to fit the new situation. Clearly, generalization and initiation are difficult to tease apart. For instance, an individual attempting a new behavior on the job is engaged in initiation of transfer but is also generalizing learning from one environment to another. Moreover, generalization is dependent upon initiation; an employee must have taken the steps to perform the behavior on the job in order to generalize what they learned from training. The generalization facet is also a function of training design. The more similar the training environment is to the job environment, the less generalization needs to take place (Swartz, 2002). To provide an additional perspective for understanding the potential transfer problem, Laker conceptualizes training transfer by asserting two general dimensions of transfer: “time” and “distance,” where time gauges the initiation and maintenance facets of transfer, and distance gauges how different the context in which the trained skill applied is from the training context (i.e., near or far.).

Thus, initiation, maintenance, and the degree of generalization are conceptually distinct constructs, though this distinctiveness is not frequently examined in the literature (Laker, 1990). According to Laker, the key difference between initiation of transfer and maintenance of transfer is their temporal ordering; initiation must occur before maintenance. Initiation therefore deals with the most proximal manifestations of transfer. Many studies have examined only maintenance of transfer simply because it is easier to do so, due to the difficulty in isolating the initiation component, and fail to get at the immediate action of attempting a new behavior on the job (Laker, 1990). Laker noted that initiation is critical because once the trainee leaves the controlled setting of the training environment, many environmental variables intervene to affect whether or not the next step in the transfer process takes place.

Baldwin and Ford (1988) noted that there was a lack of theory guiding the transfer research. In response, they proposed a model containing three types of influences on transfer: trainee characteristics, course design factors, and features of the work environment. A number of factors in the literature are identified as important predictors of training effectiveness can be classified into Baldwin and Ford's three categories. These factors include General Self-efficacy (GSE) and transfer intentions, which have been found to be important trainee characteristics, and supervisor support, which has been found to be an important aspect of the work environment (Baldwin & Ford, 1988). What happens if there is lack of support to apply the new skill(s) from the supervisor or hostile co-workers, resistant subordinates or even company policy (Hawthorne, 1987)? Does the trainee abandon the new skill(s) and revert to old habits? Understanding the factors, such as transfer intentions, GSE and supervisor support, that influence individuals' choices, in particular their choice to use or not to use training on the job, would be valuable in predicting why trainees transfer training to the work environment (Laker, 1990). One would expect factors relating to the trainee and to the work environment to continue to be important, but perhaps they may play a different role regarding the initiation of transfer and maintaining the skills over time. "By isolating the facet of initiation, we can perhaps better predict when transfer will be initiated and likely to be maintained" (Laker, 1990, p. 214). In

order for organizations to benefit from their investment in training, trainees must apply and maintain what they have learned in training over time (Salas & Cannon-Bowers, 2001).

Purpose of the Study

Understanding the interaction between General Self-efficacy (GSE), transfer intentions and supervisor support and their roles in transfer initiation and maintenance might help organizations develop strategies or tactics to increase the workplace application and maintenance of knowledge and skills learned in training. The purpose of this study is to examine the multiple influences of GSE, transfer intentions and supervisor support on transfer initiation and transfer maintenance of leadership skills taught in a county government program's three-day Employee Leadership Institute (ELI). The county will review the information gleaned from the study to determine if and how the results might impact training or management processes and procedures. A planned outcome was to develop a conceptual transfer framework illustrating the relationships between and among these influences that could be used as a basis for increased understanding, discussion, and research.

Research Questions

The study addresses the following research questions:

1. What is the relationship between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and transfer maintenance?
2. What are the relative influences of General Self-efficacy (GSE) and supervisory support on transfer intentions?
3. What are the relative influences of transfer intentions, General Self-efficacy (GSE), and supervisory support on transfer initiation?

4. What are the relative influences of transfer initiation, transfer intentions, General Self-efficacy (GSE) and supervisory support on transfer maintenance?

Conceptual Transfer Framework

Figure 1 represents the Conceptual Transfer Framework originally developed for this study. It described the relationship(s) between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and transfer maintenance. The arrows in the framework describe the fluid underlying associations among the variables. See Chapter 5 for the revised perspective developed as a result of the study findings.

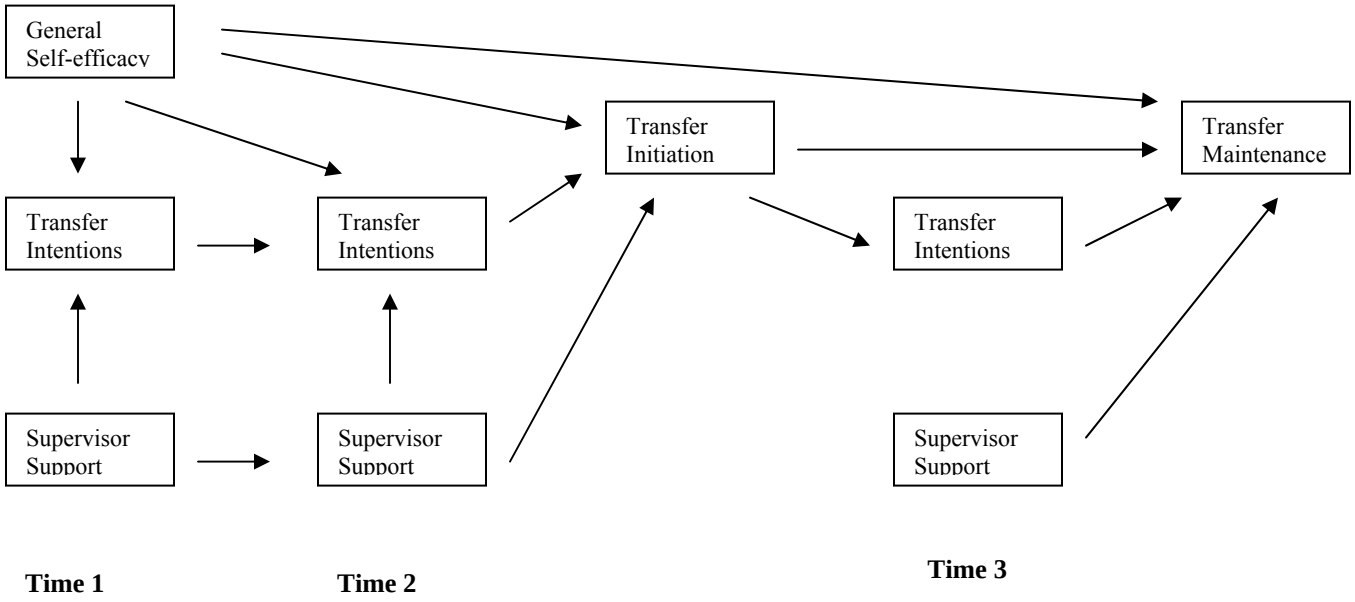

Figure 1. Conceptual Transfer Framework of the relationship between the variables contained in this study (Powell, 2009).

Transfer intentions can be viewed as commitment to apply skills, taught during a training experience, to the work environment (Reynolds, 1993). Chances of skill application after training are likely to be greatly reduced if the trainees' intentions are low

(Foxon, 1993). Therefore, transfer intentions stood out as an important trainee characteristic in the transfer research literature. This research study gauged participants' transfer intentions at times one (immediately after training), two, and three (in the work environment).

General Self-efficacy (GSE) refers to an individual's belief that he or she can gather the resources needed to deal with challenges or experiences encountered. While specific self-efficacy is a judgment of ability in a particular domain, GSE captures the perceptions of ability that transfer among domains (Eden & Kinnar, 1991). GSE has been conceptualized as a relatively stable generalized belief (trait), which is not expected to change overtime; therefore, it was measured at time one only (immediately after training). GSE was suspected to be especially important in initial transfer and skill maintenance because trainees with greater perceived self-efficacy might be more resilient when they returned to a non-supportive work environment than other trainees.

Supervisor support has been identified as a key environmental variable affecting transfer (Ford et al., 1992; Huczynski & Lewis, 1980). When supervisors are supportive, individuals are likely to feel comfortable performing trained skills (Ford et al.). The participants' perception of their supervisor's support was measured at times one (immediately after training), two, and three (in the work environment).

Transfer initiation and transfer maintenance were both measured at times two and three to determine when trained behaviors or skills were attempted on the job after training and whether they were continually exhibited at a consistent level of performance over time.

Study limitations

The results of this study must be interpreted in the light of some limitations. One such limitation is the small sample size, which is lower than desirable for the hierarchical

regression analysis. Also, because this study relied on self-ratings, it could be argued that the significant results obtained with these ratings are misleading. However, the independent variables were measured at three points in time and the dependent variables were measured at times two and three, which means there can be more confidence in the self-reports because of reliability of the instruments. In addition, the importance of how much trainees believe they have transferred skills should not be underestimated because how trainees themselves feel about different stimuli can be significant in the successful application of trained skills (Wexley & Baldwin, 1986).

Another limitation of this study is that there was no pre-test to determine whether employees were already using the behaviors identified for transfer in the three-day Employee Leadership Institute (ELI) on their jobs. It is a possibility that employees felt that they initiated and maintained the newly learned skills at one, six, nine, twelve, and fifteen months because they were using the skills anyway. According to Tracey, Tannenbaum, and Kavanagh (1995), without a control group, the difference between pre- and post-training behaviors cannot conclusively be attributed to training. Nonetheless, some significant results emerged from this study.

Self-report data were used to efficiently capture participants' innermost feelings and perceptions regarding the transfer of training and using questionnaires was the most cost effective (resources, time and money) method to accomplish this feat. A disadvantage of using self-report data is that it relies on the participant's memory, which could be subject to social desirability bias. As a result, participants may want their behavior to *appear* more desirable than it actually is. However, administering valid and reliable questionnaires helped to mitigate the disadvantages of using self-report data.

Significance of the study

This study adds to the existing transfer research by creating further understanding of intentions to transfer, General Self-efficacy (GSE) and supervisor support that influence actual transfer of learning from a formal training setting to the workplace. In addition, the participating county government will be able to use this study to enhance its continuous transfer of training efforts. The results of the study may also provide additional insight on transfer as a multi-dimensional process. Many organizations and trainers are struggling with similar issues as they develop their own training programs, workshops or curricula for employees with the ultimate goal of increasing organizational performance. Many groups, such as private corporations, public agencies, educators, and trainers, dealing with transfer of training issues may find the results of this study helpful.

This study focused on non-management employees who attended the Employee Leadership Institute (ELI) at a county government agency; therefore, its results may not be generalized to other, different populations. It is the researcher's hope that this study will serve as a starting point from which to explore further avenues for managing the transfer of training. Finally, the research could serve as a preliminary model for trainers and organizations for enhancing their transfer of training efforts.

Conclusion

Although U.S. companies continue to spend large amounts of time and money to improve employees' performance, they need to show credible and sustainable methods for demonstrating the value of their training programs. To address the challenges related to the transfer of training, this chapter focused on the statement of the problem, purpose of the study, a conceptual transfer of training framework and research questions as the basis for better understanding transfer. These led to a literature review, which is included as Chapter 2.

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter will review the literature related to transfer of training by first discussing evaluation models and approaches that have contributed to the emergence of the transfer of training concept. In addition, the review highlights early theoretical frameworks and relevant transfer studies that examine the effects of transfer intentions, General Self-efficacy (GSE), and supervisor support on the transfer of training. Lastly, the review focuses on inhibitors, facilitators, and conditions for transfer.

Types of Evaluation Models and Approaches

Historically, many have looked at the transfer of training as part of the evaluation process. Noted earlier, the concept of evaluation is the process of determining the value or worth of a program or course (Stufflebeam, 1971). Evaluation models and approaches that underlie much of today's evaluation practice were developed in the late 1950's and 1960's, and there is much documented theory and research in the field of training evaluation. For example, Kirkpatrick (1994) defines evaluation in two different ways: (a) measuring changes in behavior that result from training and (b) assessing the overall results of the training program. While there are many reasons to evaluate training, a growing emphasis on accountability of training professionals has increased awareness of evaluation methods (Phillips, 2007). Understanding the evaluation process and history sheds light on how the transfer of training has been utilized and measured. This section of the literature review presents highlights from some evaluation models that have contributed to the discussion and importance of the transfer of training and provides a variety of perspectives of the components that relate to transfer of training.

Figure 2 illustrates the time continuum for the initiation of the evaluation models and approaches discussed in this chapter.

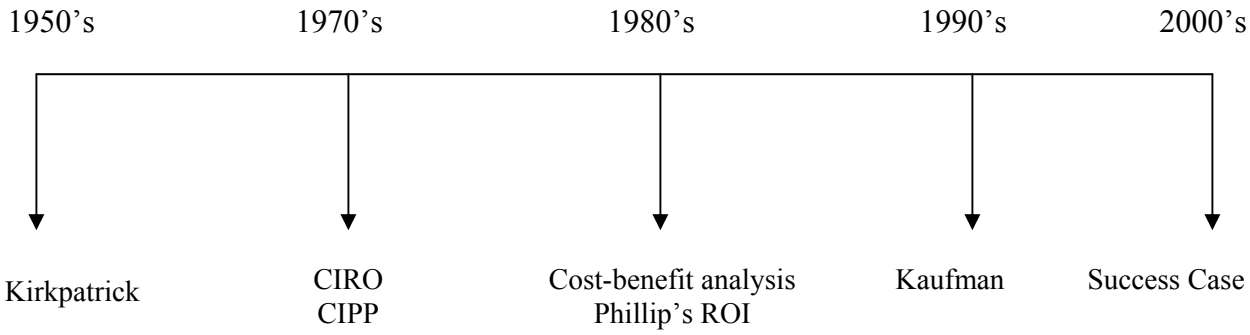

Figure 2. Time continuum for evaluation models and approaches (Powell, 2009).

Kirkpatrick's Four Level Evaluation Model

Kirkpatrick's levels for training evaluation (Kirkpatrick, 1950a, 1950b, 1994), initially proposed in the 1950's, include measuring training reaction, learning, behavior, and results:

- Level One: Trainees' reactions to the content and process (How did they like it?)
- Level Two: Knowledge or skill acquisition (What did they learn?)
- Level Three: Behavior change (How did it change their performance?)
- Level Four: Improvements in tangible organizational outcomes (The effects on the business or environment resulting from the trainee's performance)

The most common type of evaluation occurs at Level One, which measures participants' reactions to the training event (Kirkpatrick, 1994). Reactions (Level One) are the measure of participants' satisfaction. The second level of evaluation is the evaluation of participant learning. Learning (Level Two) measures the extent to which participants gain

knowledge from the training program. Behavior change (Level Three) is specifically measured as changes in attitudes or improvement in skill. According to Kirkpatrick, Level Three is the stage of evaluation that determines the extent to which trainees generalize training to the workplace, given conditions of individual motivation to change and the appropriate climate. The continued uses of behaviors lead to results (Level Four), originally the final level of evaluation that Kirkpatrick proposed. According to Kirkpatrick, results become manifested in such changes as increased production, improved quality, increased sales, higher profits, decreased costs, etc.

Although his article "Techniques for Evaluating Training Programs" was originally published in 1960, Kirkpatrick's model is still the most popular among the training industry, and his work is cited in almost every article dealing with the evaluation of training. The effectiveness of training activities or events is most often evaluated using some combination of the criteria first set out by Kirkpatrick (1976). Over the past 40 years since Kirkpatrick published his four level training evaluation model, many training organizations and authors have found limitations in the model and have modified the four levels to meet their needs. On the other hand, *Training Magazine's* annual industry report (Galvin, 2002) showed that best practice organizations chose to use the Kirkpatrick four-level evaluation model and Jack Phillips' Return On Investment framework, discussed later, as the basis for their evaluation process because they are practical, straightforward, logical, understandable, credible, and useable.

The CIRO Evaluation Model

Warr, Bird, and Rackham (1970) presented a four-level framework, in which four categories (Context, Input, Reaction, and Outcome) of evaluation made up the CIRO approach.

- *Context* evaluation involves obtaining and using information about the current situation to determine training needs and objectives.
- *Input* evaluation involves obtaining and using information about possible training resources to choose between alternative inputs to training.
- *Reaction* evaluation involves obtaining and using information about the participant's reactions to improving the training process.
- *Outcome* evaluation involves obtaining and using information about the results or outcomes of the program and is usually regarded as the most important part of evaluation.

The CIRO model focuses on measurements both before and after the training has been carried out (BoonKrong, Tennant, & Roberts, 2002).

The CIPP Evaluation Model

Stufflebeam's (1971) CIPP model presented a framework around the program objectives, the training content and facilitation, program implementation, and program outcomes.

- *Context* refers to the examination of the program objectives—their acceptability to the organizational/societal culture and their relevance.
- *Input* refers to the assessment of the content of the program as well as the methods to be used by the facilitators. This stage helps in program planning.
- *Process* is concerned with the implementation of the program. Were the materials effective? Was the facilitator effective? Was the program presented/implemented as planned?
- *Product* refers to the outcome of the programs. Are the results of the program aligned with the intent as described in the objectives?

Cost-Benefit Analysis

Cost-benefit analysis is referred to as the oldest evaluation method used to access the feasibility of expenditures of all types of programs in order to show the value of education and training (Kearsley, 1982; Prest & Turvey, 1965; Thompson, 1980). Summarized in seven steps is the Cost-benefit analysis:

- Step 1: Identify key stakeholders and their values
- Step 2: Identify alternative choices to compare to the program under evaluation
- Step 3: Define the costs and the benefits of all alternative choices
- Step 4: Place a monetary value on the cost and benefits
- Step 5: Identify intangible benefits (those not converted to monetary value or any additional benefits identified through the evaluation)
- Step 6: Compare the costs and the benefits
- Step 7: Make a decision regarding the program

Phillips' Five-Level ROI Model

In the 1980's Phillips (1983) began efforts to stretch the training community to move beyond Level Four of Kirkpatrick's model to a financial accounting of program success, Return On Investment (ROI), which he called Level Five. This type of evaluation is similar to Kirkpatrick's Level Four in that it seeks to identify training results, usually in a monetary form, but it differs because it also examines the cost of the training (investment) that may have led to the measured results. The cost of the training is subtracted from the monetary value of the results to obtain the ROI. In addition to adding the fifth level of evaluation to the Kirkpatrick four-level framework, Phillips redefined Levels Three (Application and Implementation) and Four (Impact) to broaden their definitions to include transfer of learning and outcomes to processes other than training (Phillips, 1995). He also developed a process model and guiding principles to ensure replication of the process across organizations. An important part of the process is the critical step to isolate the effects of

the program. Without this step, training cannot take credit for improvements in Level Four impact measures with accuracy or credibility (Phillips, 2004). Interest in ROI appears to be growing; articles on ROI appear more frequently in training and HRD publications and there are books devoted to the subject.

Kaufman's Five Levels of Evaluation

Kaufman and Keller (1994) developed another type of training evaluation, which is a variation of Kirkpatrick's four-level framework that expanded the definition of Level One and added a fifth level that addresses societal issues, client responsiveness, the consequences and payoffs. They use the concept of enabling, at Level One, which addresses the availability of various resource inputs necessary for a successful intervention. Their work attempts to move evaluation beyond the organization, and examine the extent to which programs enhance society and the environment surrounding the organization (Phillips, 2004).

Success Case Evaluation Model

Brinkerhoff and Dressler (2002) developed the Success Case Evaluation Model. Their model uses purposive sampling rather than random sampling. The model focuses on input from training participants who have been most successful as well as least successful at applying the knowledge and skills learned during the training event. There are two key steps in the model.

- Step One: This includes sending a brief survey to all training participants. Through the results of the survey, a small group of the most successful and least successful participants can be identified.
- Step Two: This includes in-depth telephone interviews with participants identified in the small group. Two immediate results of the interviews include stories of the

business value of the participant application of learning, enablers, and barriers that either supported or prevented the application of skills and knowledge learned.

The results can then be used to improve implementation and support for the program, recruit new participants (or customers) not currently using the training services, and assist management in understanding how course delivery and the learning environment can be improved to further increase the value from training.

Transfer of Training Models

A number of authors have addressed the problem of how best to optimize the transfer of training through developed theoretical models that examine the impact of different training input variables such as trainee characteristics, training design variables, and work environment factors on the transfer process (Baldwin & Ford, 1988; Gielen, 1996; Holton, 1996; Kozlowski & Salas, 1997; Thayer & Teachout, 1995). Broad and Newstrom (1992) outlined a series of strategies for managing the transfer of training that focused on three time periods (before, during, and after training) and on the responsibilities of three separate organizational roles (the role of the manager, the role of the trainer, and the role of the trainee). Thayer and Teachout designed a two-level model that includes influences at the organizational level (within climate for transfer), which affect influences individual-level outcomes. Kozlowski and Salas (1997) designed a three-level model incorporating the individual level, the team level, and the organizational level. Gielen (1996) presented another model of transfer that separates work environment factors affecting training transfer into work system factors and people factors. Work system factors include items related to culture such as open communication and change resistance (Rainey, 1983), opportunity to use training (Clarke, 2002; Ford, Quinones, Sego & Sorra, 1992), and matches between training goals and organizational goals (Richey, 1990; Montesino, 2002). People-related factors include support from supervisors and coworkers (Ford et al., 1992; Richman-Hirsch,

2001), and availability of a mentor (Richey, 1990). This section of the literature review documents four useful frameworks found in the transfer literature.

Despite the urgent need to better understand the transfer of training process, Baldwin and Ford (1988) realized that the extant literature on transfer had very little value to practitioners to enhance transfer. They posited that early empirical research studying the effects of individual factors in the work environment on transfer were very few, and that practitioners needed to rely on good transfer theories to withstand rigorous empirical testing. Additionally, Baldwin and Ford (1988) conducted a meta-analysis and reviewed the major studies of training transfer that were done before 1987. As a result, they created a transfer model that highlights the importance of trainee characteristics, training design factors and work environment factors. The literature review for this study indicated that Baldwin and Ford's transfer model has probably been the most influential on transfer research to date.

The Baldwin and Ford model (1988) describes the key variables impacting transfer of training. Figure 3 presents this description in the form of six linkages, which are broken down further into three categories: training input factors, training outputs and conditions of transfer. Baldwin and Ford (1988) indicate, "The conditions of transfer include both (a) generalizations of material learned in training to the job context and (b) maintenance of the learned material over a period of time" (p. 65).

Baldwin and Ford Model

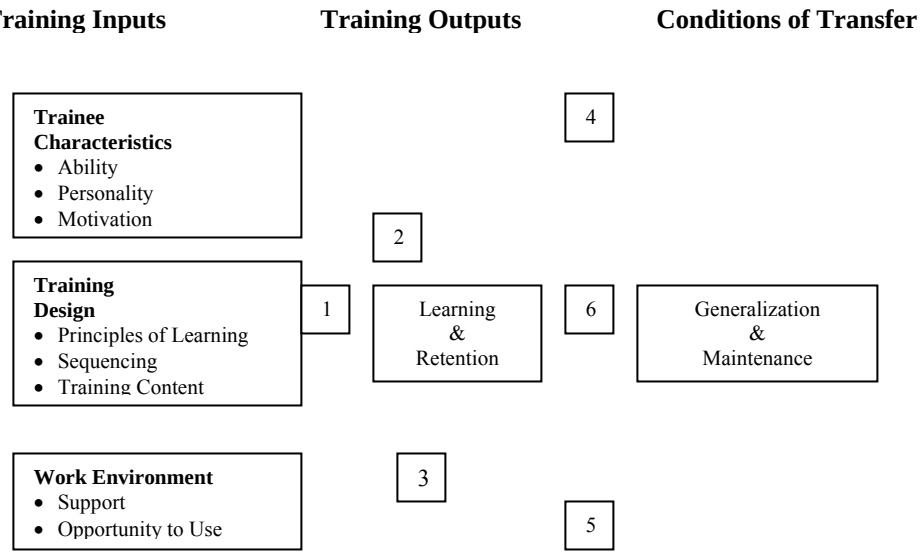

Figure 3. The Baldwin and Ford (1988) model. Note: From "Transfer of training: A review and directions for research" by T. T. Baldwin and K. J. Ford, 1988, *Personnel Psychology, 41*, 63-105. Reprinted with permission.

If one works backward through the model (Baldwin & Ford, 1988, p.6) (from right to left), conditions of transfer (generalizations and maintenance) at linkage 6 *is* directly impacted by learning and retention. Training design outputs (linkage 1) has a direct impact on learning and retention, but an indirect relationship on transfer (generalization and maintenance). However, trainee characteristics and the work environment have direct relationships with learning and retention (linkages 2 and 3), as well as (linkages 4 and 5) with generalization and maintenance. The model suggests that transfer of training is a function of these variables being in alignment. That is, training inputs affect learning and retention, which directly influence generalization and maintenance (Yamnill & Mclean, 2001). According to Machin (2002), successful transfer of training is not determined by any one factor such as performance in the training program. Noe (2002) expanded on Baldwin and Ford's model to include issues of self- management strategies, concern for the learning environment as relative to training design and assessing transfer climate as being important in assessing the work environment.

Thayer and Teachout's Model

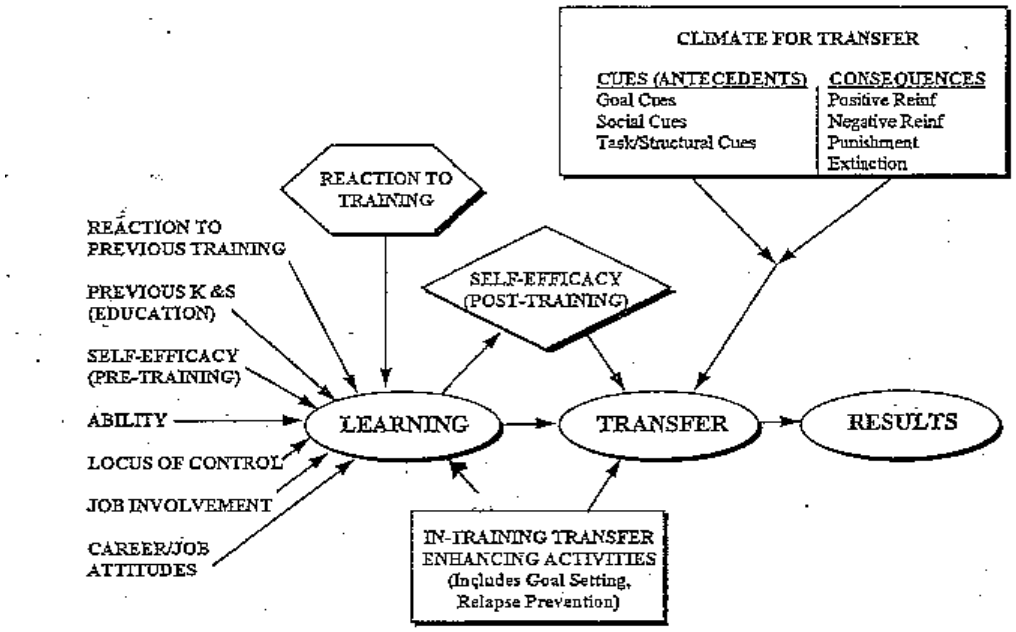

Figure 4. Thayer, P. W., & Teachout, M. S. (1995). *A Climate for Transfer Model*. AL/HR-TP-1995-0035, p.5. Reprinted with permission.

Thayer and Teachout's transfer of training model (1995; see Figure 4) focuses on several aspects of the training process that affect transfer outcomes. In particular, Thayer and Teachout highlight the climate for transfer of training, and the transfer-enhancing activities (goal setting, relapse prevention, etc.) that occur during training programs as important determinants of transfer. They include in their model cues such as goal cues and social cues, and consequences such as positive or negative reinforcement that may enhance or inhibit transfer. Other variables in Thayer and Teachout's transfer of training model include individually oriented variables such as trainee ability, trainee self-efficacy, previous knowledge and skill, reactions to training and the level of understanding. Locus of control, job involvement, and career attitudes are also included as possible influences on the learning process. The main advantage of this model is that it identifies influences at the organizational level (within climate for transfer) that affect individual-level outcomes.

Holton's Factors Affecting Transfer of Training

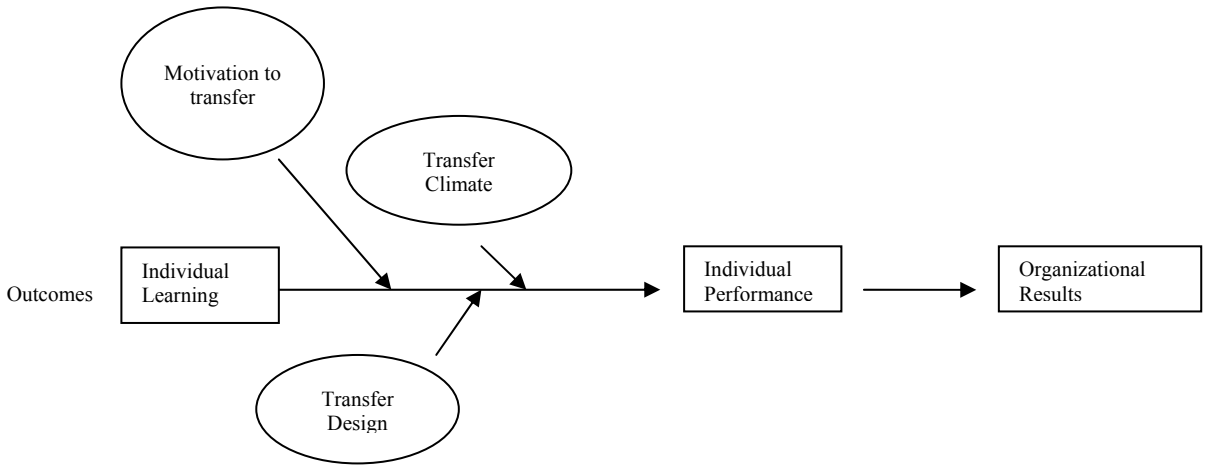

Figure 5. Source: Adapted from Holton, 1996, p. 17. Reprinted with permission.

Holton (1996) suggested a framework that included three primary outcomes of training (i.e., individual learning, individual performance and organizational results), which are influenced by a combination of motivational, environmental and enabling factors. In this model (see Figure 5) the outcome of individual learning is influenced by the trainee's motivation to learn, the trainee's reaction to the training climate and the trainee's experience and ability. The outcome of individual performance (after training) is influenced by the trainee's motivation for transfer, the transfer climate and the design of the training program. Finally, the organizational results achieved are determined by the expected utility of training or return on investment of time and resources, the external events that constrain or amplify productivity and the linkage between training and the strategic objectives of the organization. The advantage of Holton's model is that it specifies the kinds of intervening variables that influence each of the outcomes and indicates the directions of causal effects.

Broad: Improving Performance in Complex Organizations

In the book *Beyond Transfer of Training: Engaging Systems to Improve Performance* Broad (2005) introduces a systematic framework for evaluating transfer in complex organizational systems. She suggests a "how to" approach for defining a complex system, recruiting and gaining the support from key stakeholders, identifying strategies and implementing interventions to improve performance in organizations. Broad (2005) considers performance in moderate or highly complex organizational systems to be at the work process level (how the work is done by many performers) and the organizational level (outcome of many work processes throughout the organization component). A combination of interventions is necessary to lead to desired performance and results. These include:

Task 1. Define the complex system and the performance the organization seeks to improve, and identify important stakeholders in major components of the system (including top managers for strategic interventions).

Task 2. Educate stakeholders on the two sets of factors that support performance of supervised and autonomous workers.

Task 3. Get stakeholders to commit to specific actions to take to provide those factors, during and after the intervention, including top support throughout.

Task 4. Manage implementation of the intervention so that contributions from important stakeholders are visible and made when they are needed.

Task 5. Evaluate the outcomes. Incorporate transfer related items into Kirkpatrick's Level 1 and Level 3 evaluation instruments. The Level 1 evaluation measures participant reaction to and satisfaction with the learning intervention. The Level 3 measures the extent of application of learning by participants to job performance. For instance, in the Level 1 instrument, new items include getting learner and supervisor attention to identifying potential barriers to transfer in the workplace, assessing the learner's level of confidence in applying the learning, and developing specific action plans to apply the learning. In the Level 3 instrument, new items include assessing the extent of accomplishment of action plans, identification of actual barriers in the work

environment, and identification of actual support strategies used by supervisors and others to support the learner's application of the learning.

Broad's (2005) framework for improving performance in complex systems is designed for performance consultants, managers and other change agents who help organizational systems achieve their desired performance goals.

Transfer of Training Key Research Variables

In 1955, Edwin Fleishman, Edwin Harris and Horald Burtt conducted one of the first formal research studies relating to transfer of training. They measured changes in behavior of International Harvester foremen that were trained in leadership principles and techniques. Immediately following training, the foremen generally showed the desired changes in behavior. However, after some time back on the job, most had returned to their original behavior. The desired results of the training were achieved only among those foremen whose supervisors consistently demonstrated the desired principles and techniques (Fleishman, Harris & Burtt, 1955). Although much has been learned over the past fifty-four years that has affected our understanding of transfer, there remains more to be learned. This section documents transfer research on transfer intentions, General Self-efficacy (GSE), supervisor support, and the conditions for transfer (transfer initiation and maintenance).

Transfer Intentions and Transfer

Thayer and Teachout's model (1995) includes transfer success as the main post-training outcome. Their study focused on three variables that described the state of readiness of the trainees at the completion of training, including the trainees' learning during training, self-efficacy and a new outcome variable called transfer implementation. It

was proposed that the trainee develops an intention to transfer as a precursor to initiating any transfer-related actions (Machin & Fogarty, 1997; Tubbs & Ekeburg, 1991). Recently, Machin and Fogarty (2003) conducted what may be the first empirical test of Thayer and Teachout's conceptual model of training transfer. They sought to explain how trainees' perceptions of various in-training transfer-enhancing activities such as over-learning, fidelity, stimulus variability, principles-meaningfulness, self-management activities, relapse prevention and goal setting would predict their self-efficacy and implementation intentions (rather than actual transfer outcomes) of computer skills. Transfer implementation intentions were associated with post-training self-efficacy and all the individual transfer-enhancing activities, especially self-control cues, relapse prevention and goal setting. They found that perceived success in learning is no guarantee that trainees will have any specific intentions of applying what they have learned. However, the trainees' levels of post-training self-efficacy were strong predictors of transfer implementations intentions (β = .42), as was expected. Self-efficacy levels prior to training were found to be strong predictors of the self-efficacy levels at the end of training, which were strongly linked to the level of transfer intentions. According to Machin & Forgarty, transfer intentions are trainee variables thought to play an important role in the transfer process, and they note researchers recommend that trainees' transfer intentions be validated against their actual behavior after they return to their workplaces.

General Self-efficacy, Specific Self-efficacy and Transfer

Self-efficacy is another individual difference variable thought to play a role in the transfer of training process. According to social cognitive theory, achievement depends on interactions between one's behavior, thoughts and beliefs, and environmental conditions; learners' self-efficacy is influenced by their performance, their experiences, influences from others and their psychological reactions (Bandura, 1986). According to Bandura, learning is an ongoing process in which behavior is motivated and regulated by one's cognitions. Bandura posited that self-efficacy, or beliefs about one's capacity to perform at designated

levels, is one important set of cognitions and that self-efficacy assumes that individuals are capable of human agency or intentionally directed behavior based on a series of determinants: previous behavior or performance, internal personal factors and the external environment .

Bandura (1991) described self-efficacy as a mechanism of self-regulation that concerns our beliefs about our ability pertaining to a specific task; more specifically, our beliefs concerning our ability to control the outcomes associated with that task. According to Bandura, self-efficacy affects a broad range of behavioral and cognitive consequences, including behavioral choice, perseverance, effort, thought patterns and causal attributions. Later, Silver, Mitchell and Gist (1995) found that individuals high in self-efficacy tend to see their failures as due to lack of effort, whereas individuals low in self-efficacy tend to see their failures as due to low ability.

According to Latham and Locke (1991), the effects of self-efficacy on performance are consistent and may indirectly influence performance quality through a variety of mechanisms. Self-efficacy may influence goal-setting effects by affecting the level of the goal chosen and the commitment that individuals have for a particular goal (Bandura, 1991, Latham & Locke, 1991); specifically, difficult goals lead to improved performance. Highly efficacious people will likely be more committed to goals because they are confident in their ability to achieve them.

Specific to the training literature, Mathieu, Martineau and Tannenbaum (1993) showed that self-efficacy was related to both training reactions and training performance. Mullins, Fisher, Howell, Schmitt and Kozlowski (1998) found support for the hypothesis that self-efficacy mediates the relationship between motivation to learn and intent to transfer. Trainees may be motivated to learn the material presented in training, but if they are not efficacious with respect to the task or skill to be acquired, they will be less likely to have intentions to attempt it on the job. Similarly, individuals low in self-efficacy will be

less likely to attempt to transfer learned material back to the job. Self-efficacy is typically regarded as task specific. It was first presented by Bandura (1977) as very task specific and most research has been so conducted.

Several researchers have also explored the concept as a global one, called General Self-efficacy (GSE). Sherer and colleagues (1982) discussed general self-efficacy from the point of view that the construct is based upon experiences from a variety of situations. Woodruff & Cashman (1993) note that this assessment of that collection of experiences is the expectation that individuals carry into new situations. General Self-efficacy (GSE) has been conceptualized as a relatively stable generalized belief that an individual can gather the resources needed to deal with the challenges that he or she experiences (Woodruff & Cashman). That is, GSE is a trait-like belief in one's competence. This operationalization is in contrast to Bandura's (1982, 1984) original formulations of self-efficacy as a state-like belief in one's competence. Evidence suggests that GSE and task-specific self-efficacy are positively correlated (e.g., Sherer et al., 1982). Eden (1988, 2001) and Judge (1998) are among the authors who have argued that GSE moderates the impact of the environment (e.g., negative feedback) on an individual's task specific self-efficacy. Eden argued that GSE is a determinant of task specific self-efficacy. Moreover, Judge's research has found that GSE is related to, but distinct from, other self-evaluation constructs (e.g., self-esteem; Judge et al., 1998). Bandura (1997) recognized that experiences are generalized to other domains. Individuals who experience multiple successes in many different tasks (particularly in similar domains) possess a higher belief in their ability (in those domains). Likewise, one who has limited success or repeated failures has lower expectations of ability. This gives rise to the conceptual differences between general and specific self-efficacy, which are distinct constructs (Marakas et al., 1998). While specific self-efficacy is a judgment of ability in a particular domain, general self-efficacy captures the perceptions of ability that transfer among domains (Eden & Kinnar, 1991). Training efforts and programs naturally vary widely in scope and emphasis in a way that complicates the designation of self-efficacy as task specific. While some training focuses on specific skill development

(for example, to perform a task), organizations also invest in more comprehensive, broadly targeted training to prepare participants for a range of experiences.

Supervisory Support and Transfer

Many situational, contextual, and trainee variables can intervene to make the transfer process complex (Laker, 1990). According to the transfer literature, identifying the trainees' capacity to recognize that transferring trained skills is central to performance can be useful. The reason is that unless skill transfer is perceived by trainees and their supervisor as crucial to job performance, training is unlikely to be effective (e.g. Rossett, 1997; Taylor, 2000). A concern for many employers is that once the training is complete and the employee is back in the workplace, the training is not always put into practice (Baldwin & Ford, 1988).

Lack of support for using skills learned in training can take many different forms such as "a recalcitrant supervisor, hostile co-workers, resistant subordinates, or even company policy" (Hawthorne, 1987, p. 30). Jones (1995) argued that the employee's immediate supervisor has the greatest direct influence on the learner's behavior in applying what was learned in training on the job. If the supervisor ignores, punishes, or discourages skill use, employees are not going to use the skills they have learned. The unsupported employee continues to repeat old behaviors, and managers and employees come to view training as a waste of time (Brinkerhoff, 1997).

In their transfer model, Baldwin and Ford (1988) classified work environment factors as training inputs defined as peer and supervisory support, and opportunities and constraints to perform learned behaviors on the job. Holton's (1996) transfer of training model included "transfer climate," defined as the mediating variable between an organizational context and a person's job attitudes, and work behavior as a result of an individual's perception of his or her work environment. Thus, even when learning occurs in

training, the transfer climate may either support or inhibit the application of learning to the job or the extent to which a person can use learned skills on the job (Mathieu, Tannenbaum and Salas, 1992). Holton, Bates, Seyler, & Carvalho (1997) found that people see transfer climate in terms of organizational referents such as supervisors or peers.

Supervisor support has clearly been established in the literature as a critical work environment factor influencing the transfer process (Baldwin & Ford, 1988; Clarke, 2002; Clark, Dobbins, & Ladd, 1993; Gielen, 1996; Russ-Eft, 2002; and Taylor, 1992). Russ-Eft defines supervisor support as providing reinforcement for learning on the job, including setting goals with trainees, modeling training behaviors and providing positive reinforcement for the use of new skills. Baldwin, Ford, and Naquin (2000) define supervisor support as active participation, meaning that supervisors need to do more than state the importance of learning. Rather, they should actively participate in and lead training and on-the-job application of training. Examples of supervisor support include setting learning goals, helping, and offering positive feedback. Cohen (1990) found that trainees with more supportive supervisors entered training with more positive attitudes towards the value of training. Baldwin and Magjuka (1991) found that trainees who were aware that their managers would be conducting follow-up to the training reported stronger intentions to transfer. Birdi, Allan and Warr (1997) linked manager support to increased job-learning, increased planning and increased development. Tracy, Hinkin, Tannenbaum and Mathieu (2001) discuss managerial support as part of the organization's social system. They claim that both professional and personal relationships between managers and employees can influence how training is perceived and valued. Supervisors who support training can positively influence a person's confidence to learn new skills as well as his or her ability to transfer the new skills to the job. Xiao (1996) found supervisory behavior affected training transfer more than any other organizational variable.

In addition, Huczynski and Lewis (1980) found that the single most important factor influencing the trainee's intent to transfer was the supervisor's management style and

attitude. Huczynski and Lewis examined Network Analysis, a training program targeted toward construction and engineering industries. Using a questionnaire and semi-structured interviews before and after the course, the researchers examined trainees' motivation to transfer training, their intent to transfer the training, and organizational factors that inhibit or encourage transfer. The results of their study indicated that 35 percent of the trainees attempted to transfer what they had learned back on the job. Of the 35 percent, the majority indicated that supervisor support was a significant factor in transferring the skills they learned to the job.

Conditions for Transfer

Transfer initiation represents the initial application of the new skill on the job; it is the attempt to apply the training in the work environment (Laker, 1990). This is where time gauges the initiation facets of transfer (Baldwin & Ford, 1998). Utilizing the newly learned skills on the job demonstrates that the participant has been able to retain the acquired skills (Goldstein, 1986). According to Laker, even though the participant has retained the new skill, application of that skill on the job is not always successful. Therefore, detection of initiation is useful because most trainees' initial attempts at the newly learned skills or behaviors are normally difficult, awkward, uncomfortable and occasionally unsuccessful (Rackman, 1979). Early detection can identify opportunities for support and external rewards to help reinforce initial efforts of application. The notion is that "once the trainee gains competence with the new skills and the skills become more integrated into his or her behavior repertoire, the intrinsic rewards as well as consequences of successful application within the work environment will increase the probability of maintenance" (Laker, 1990, p.212).

Transfer maintenance is the participant's proficiency in applying the learning and skills gained in training on the job (Laker, 1990). This is where time gauges the maintenance facets of transfer (Baldwin & Ford, 1998). "Transfer maintenance can be

viewed as a permanent change in an individual's behavior, skill, and attitude, among other things; it represents the continuous application of skills and behaviors on the job over time" (Laker, 1990, p.213). Baldwin & Ford (1988) state that "maintenance concerns the length of time that trained skills and behaviors continue to be used on the job" (p.95).

Barriers to Transfer

Practitioners have sought to explain the low levels of transfer in terms of barriers. In a research study, Newstrom (1986) identified the top three barriers to training transfer as lack of reinforcement on the job, interference from the immediate work environment; and a non-supportive culture for the change. Newstrom also determined that managers play the most significant role in resolving the problems of transfer of training. Kotter (1988) found that the most powerful force of inhibiting transfer was the lack of involvement by top management. Managers hold the primary responsibility for the number one barrier to transfer**,** which is lack of reinforcement on the job. Kotter contended that without management reinforcing and supporting what was learned during training, employees would easily fall back into their old routines. Furthermore, supervisors/managers may need training themselves to learn how to support the transfer of skills for their subordinates (Broad & Newstrom, 1992).

Trainees' intentions to engage in specific behaviors that would facilitate transfer of their skills (Machin & Fogarty, 2003) are central to performance. Unless, skill transfer is perceived by trainees and their supervisor as crucial to job performance, and they are rewarded in the work setting, training is likely to appear as ineffective (Rossett, 1997; Taylor, 2000).

Indicators of Effective Transfer

A number of factors have been identified as positively impacting on training transfer such as:

- *Securing top management support*. The commitment of top management is critical to successful training transfer (Brinkerhoff & Gill, 1994; Fricker, 1994). As Fricker notes, "Chairmen and chief executives need to recognize the value of learning as the primary force to facilitate and achieve change in their organizations"(pp. 24-25).
- *Linking training to organizational aim*s. Brinkerhoff and Gill (1994) cite the importance of the involvement of training managers in organizational planning and goal setting by formulating training goals that are linked to organizational needs and training strategies that achieve those goals
- *Ensuring that what is learned in training is transferred to the job.* In effective training and development systems, techniques are in place to ensure that the knowledge, skills, and attitudes that are learned in training are transferred to the job (Yaw, 2008). Examples of ways to ensure that employees use new skills they learn in training include holding trainees and their managers accountable for making sure skills learned in training are used on the job, integrating management into training planning and delivery, and integrating training with other human resource elements, such as the performance appraisal process (Human Technology, Inc., 1993).
- *Establishing a climate for transfer.* According to Rouiller & Goldstein (1993), individual learning and training transfer are guided by the organizational climate, which can either inhibit or enhance transfer. The organizational climate can influence an individual's training responses through his or her perceptions of the organizational environment (Yamnill & McLean, 2001).
- *Incorporating transfer into design.* According to Holton (1996), training design can increase transfer by providing an opportunity to practice the training in a job context.

Conclusion

The goal of this Chapter was to provide a literature review of training transfer, research on key transfer variables and a theoretical background of how trainee and

environmental variables influence training transfer. A trainee's intentions, supervisor's support and confidence in his or her ability to apply a newly learned skill will have a positive impact on transfer. As noted earlier, Baldwin and Ford (1988) created a transfer model that highlights the importance of trainee characteristics, training design factors and work environment factors. Guided by their theoretical framework, I designed a study to examine the influences of transfer intentions, General Self-efficacy (GSE), and supervisory support on transfer initiation and transfer maintenance.

CHAPTER 3: METHOD

This study examined multiple influences (General Self-efficacy (GSE), transfer intentions and supervisor support) on transfer initiation and transfer maintenance of leadership skills taught in a county government program's three-day Employee Leadership Institute (ELI). The study measured actual transfer at three, six, nine, and twelve months following the training. Therefore, the approach used was to develop and administer post-training questionnaires at three separate times following ELI to measure actual transfer at three, six, nine, and twelve months. A total of 126 participants completed one or more of the questionnaires; 67 completed all three and served as the study's sample.

The study addressed four research questions:

1. What is the relationship between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and transfer maintenance?
2. What are the relative influences of General Self-efficacy (GSE) and supervisory support on transfer intentions?
3. What are the relative influences of transfer intentions, General Self-efficacy (GSE), and supervisory support on transfer initiation?
4. What are the relative influences of transfer initiation, transfer intentions, General Self-efficacy (GSE) and supervisory support on transfer maintenance?

This chapter provides a review of the research methods and logistics of the study. The following sections include a description of the sample, the training experience, survey administration, data collection, and data analysis techniques. Background information on the scales and survey items used in each section of the survey instruments (questionnaires) provide appropriate references and reliabilities for the scales (See Appendix A for the questionnaires.)

Sample

The participants consisted of 67 front-line employees enrolled in a county government program's three-day Employee Leadership Institute (ELI) (Appendix B, ELI application) in December 2006, March 2007, September 2007, and December 2007. This study built upon and extended previous data gathered immediately after ELI from each cohort group to better understand relationships that existed between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and transfer maintenance. The 67 participants were pulled from a group of 126 participants who completed one or more of three surveys, dealing with the transfer of learning. The 67 were those who completed three different surveys at three different points in time.

Why the Employee Leadership Institute?

The county government in this study is committed to providing existing employees with leadership tools through training and development initiatives and promoting from within to fill leadership positions. As a result, the Employee Leadership Institute (ELI) course was created to give employees a well-defined path aimed at improving leadership and personal effectiveness skills. The Employee Leadership Institute is a high energy, three-day event designed to identify and develop leadership skills for non-supervisory personnel who want to move into supervisory positions, or who want to improve personal and departmental results by learning and applying effective leadership skills and techniques. It offers all front-line employees an opportunity to develop their leadership skills while learning about their role in a continuous improvement environment. Finding out whether skills are transferred to the work environment is critical to the county government and to the participants' development.

Participation in ELI is voluntary and participants learn from each other in interactive sessions led by qualified facilitators. In addition to the classroom teaching

experience of the facilitators, they have completed a two-part facilitation skills course. Facilitation Skills Part One covers adult learning theory, learning styles, facilitation techniques, delivery methods, and learning aides. In Facilitation Skills Part Two, participants deliver a 20 - to 30 - minute block of instruction using content, tools, and techniques learned in Facilitation Skills Part One. In order for a participant to pass the course, he or she has to deliver this block of instruction demonstrating the appropriate tools and techniques. The participants receive evaluations at the end of their presentations to determine if they met the criteria to pass the course.

The actual course content focuses on various aspects of the Myers Briggs Type Indicator (MBTI) and communication, leadership, personal accountability and ethics, group dynamics, problem-solving and creativity, time management, the big picture (visionary) and experiential learning (group outdoor activities). These topics are presented during 10 different training sessions with an overall theme of Leadership. Multiple methods of delivery are used throughout the course including classroom lectures, small and large group discussions, video tapes, and a variety of hands-on learning activities.

This research study did not examine the transfer skills specifically for all 10 different training sessions. Instead, it examined the transfer skills associated with leadership, which is the overall theme of ELI. The study focused on to what degree the participants exhibited the following behaviors: a) Model the Way, b) Inspire a Shared Vision, c) Challenge the Process, d) Enable Others to Act, and e) Encourage the Heart.

Rationale for Selecting Transferable Leadership Skills

The Employee Leadership Institute's (ELI) overall theme is based on the leadership work of James Kouzes and Barry Posner (2002) who have been working, writing, and teaching on leadership for over thirty years. Their leadership philosophy is "Leadership is everyone's business." Kouzes and Posner (2002) described the evolution of their leadership

philosophy and approach in their book *The Leadership Challenge.* They began their journey while working on a leadership project in 1983. They wanted to know what people did when they were at their "personal best" in leading others. Subsequently, they began their research with the assumption that they did not have to interview and survey star performers in excellent companies to discover best practices. They assumed that by asking ordinary people to describe extraordinary experiences, they would find patterns of success. After some preliminary research, Kouzes and Posner devised a personal-best leadership survey consisting of thirty-eight open-ended questions such as: What special techniques and strategies did you use to get other people involved in the project? What did you learn about leadership from this experience? The Leadership Practices Inventory (LPI) was developed through a triangulation of qualitative and quantitative research methods and studies. In-depth interviews and written case studies from personal-best leadership experiences generated the conceptual framework, which consists of the five leadership practices (Kouzes & Posner, 1995):

- Model the Way
- Inspire a Shared Vision
- Challenge the Process
- Enable Others to Act
- Encourage the Heart

Kouzes and Posner (1995) translated the actions that make up the five leadership practices into behavioral statements in the LPI . According to Kouzes and Posner, following several iterative psychometric processes, the resulting instrument has been administered to over 350,000 managers and non-managers across a variety of organizations, disciplines, and demographic backgrounds. Internal reliability, as measured by Cronbach's Alpha, continues to be strong, with all scales above the .75 level (Posner & Brodsky, 1992). Validation studies conducted over a fifteen-year period were consistent in confirming the reliability and validity of the LPI and the Five Practices of Exemplary Leaders model

(Sashkin & Rosenbach, 1998). Overall, the Leadership Practices Inventory (LPI) has been extensively applied in many organizational settings and is highly regarded in both the academic and practitioner world (Sashkin & Rosenbach). Therefore, the behaviors chosen to examine the transfer of training relate to the five leadership practices identified by Kouzes and Posner that were taught in ELI.

Using the five leadership practices as the basis for examining transfer, the researcher worked with ELI coordinators, who were internal learning consultants, for the program to create a list of observable behaviors that represented the five leadership practices. Each of the coordinators had four years experience coordinating the event and over 15 years of teaching in the leadership field. The initial list of 45 behaviors was whittled down to 5 behaviors by eliminating duplicate skills, non-observable skills and grouping similar skills. The whittling down process and final list of leadership practices supported by the five leadership behaviors are in Appendix C. The five leadership practices supported by the five leadership behaviors are also in Table 1.

Table 1

Leadership practices supported by leadership behaviors

Leadership Practice	**Behavior**
Model the way	Lead by example
Inspire a shared vision	Positive outlook
Challenge the process	Taking risks
Enable others to act	Appreciating and developing strengths
Encourage the heart	Celebrating accomplishments

In order to examine transfer, the participants were asked to respond to the following statements:

- I have attempted to "model the way" by doing what I say I will do and demonstrating a personal example of what is expected in the work environment.

- I have attempted to "inspire a shared vision" by having a positive outlook and painting the "big picture" of the county's' aspirations regarding customer service within my department.
- I have attempted to "encourage the heart" by celebrating accomplishments and praising my co-workers for a job well done within the work environment.
- I have attempted to "enable others to act" by appreciating and developing strengths in my co-workers in order to achieve my department's mission.
- I have attempted to "challenge the process" by taking risks and challenging myself and co-workers to try new approaches to their daily job duties and when working on projects.

Survey Administration

Upon arriving at ELI, the participants were told that the researcher, who was working on his doctoral dissertation, was working with the county government's University to conduct a study on training and adult learning, which was designed to improve training methods and organizational performance within the county. The participants were informed of the research design and purpose of the study. They were told that their participation was voluntary and included completing three questionnaires. The group was then asked to complete the study's Consent to Participate in Research form (Appendix D). The first questionnaire (Time 1) was administered immediately following the last session of the training experience; it measured transfer intentions, General Self-efficacy (GSE), and supervisor support and collected demographic data.

Participants were asked via email to fill out a second, electronic questionnaire for Time 2 approximately one month after the December 2007 ELI to measure transfer intentions, supervisor support, transfer initiation and transfer maintenance. To build upon the existing data, the second questionnaire (Time 2) was also administered electronically in January 2008 to the cohort groups who completed ELI in December 2006, March 2007 and

September 2007 to measure transfer intentions, supervisor support and transfer initiation and transfer maintenance.

A third questionnaire (Time 3) was administered electronically in March 2008 approximately two months after the December 2007 ELI to measure transfer intentions, supervisor support and transfer initiation and transfer maintenance. To build upon the existing data, the third questionnaire (Time 3) was also administered electronically (in February/March 2008) to the cohort groups who completed ELI in December 2006, March 2007 and September 2007 (See Appendix A for questionnaires).

Table 2 shows the *time elapsed* when each cohort was surveyed at times 1, 2 and 3. The impact of the time elapsed between each cohort is discussed in chapters 4 and 5.

Table 2

Survey Administration and Time Elapsed Between Each Cohort Group

Time 1	T. Elapsed	Time 2	T. Elapsed	Time 3	T. Elapsed
12/07	0	1/08	1 month	3/08	3 months
9/07	0	12/07	3 months	3/08	6 months
3/07	0	12/07	9 months	3/08	12 months
12/06	0	12/07	12 months	3/08	15 months

T. Elapsed = Time Elapsed

The participants included the last 4 digits of their social security number on the questionnaires, which provided a process for linking the participants' responses from Times 1, 2 and 3. This enabled the identification of 67 participants who completed all three questionnaires and who became the sample for this research study.

I was not present during classroom instruction in order to minimize a potential Hawthorne effect generally accepted psychological theory that the behavior of an individual

or a group will change to meet the expectations of the observer if they are aware their behavior is being observed (Mayo, 1930).

Instrumentation

For this study, I selected subscales from four reliable and valid instruments with acceptable psychometric properties to create three new instruments to measure four of the five components: General Self-efficacy (GSE), transfer intentions, supervisor support, and maintenance of transfer. According to Laker (1990), the fifth, transfer initiation, could be measured as the frequency, consistency, or intensity of the individual's use of the initial skills or behaviors acquired during training. After careful review of the literature, I did not find any reliable or valid instruments or subscales of items to measure transfer initiation, and as a result, developed a transfer initiation scale. The four subscales and the transfer initiation scale were incorporated into the three questionnaires distributed to participants.

The first questionnaire contained demographic items, a transfer intentions scale, a General Self-efficacy Scale (GSES) and a supervisor support scale. (See Transfer of Training Questionnaire (1), Appendix A).

- The demographic items were designed to identify certain sub-groups for potential data analysis. They are years of service, level of education, gender, age, and race.

- The transfer intentions scale, developed by Machin and Fogarty (2003), included 11 items. The original response scale ranges from 1 (strongly disagree) to 7 (strongly agree). In this study, a five-point Likert scale ("strongly disagree," "disagree," "neutral," "agree," and "strongly agree") was used instead to prevent too many choices for the respondents which could lead to confusion when selecting a response.
- The General Self-efficacy Scale (GSES), originally developed by Sherer and Maddux (1982), included 17 items. Self-efficacy was measured without reference to

any specific behavioral domain. The original survey was designed using a five-point Likert scale ("strongly disagree," "disagree," "neutral", "agree," and "strongly agree") and it was used in this study as well.

- The supervisor support scale was adapted from the Learning System Transfer Inventory (LSTI) developed by Holton, Bates, & Ruona (2000). The supervisor support scale includes 6 items. The original response scale ranged from 1 (strongly disagree) to 5 (strongly agree). In this study, a five-point Likert scale ("strongly disagree," "disagree," "neutral," "agree," and "strongly agree") was used as well.

The second questionnaire contained the transfer intentions scale and supervisor support scale included in the first questionnaire, a transfer initiation scale and a transfer maintenance scale. See Transfer of Training Questionnaire (2), Appendix A.

- The transfer initiation scale was measured with items designed by the researcher. The trainees were asked to rate the degree to which they felt they had attempted to apply a list of course skills to their job based on a five-point Likert scale from "strongly disagree," "disagree," "neutral," "agree," and "strongly agree."

- The transfer maintenance scale was adapted from a transfer of training questionnaire used in a dissertation written by Richman (1998). The transfer maintenance scale included 5 items. The original transfer of training questionnaire scale was measured on a five-point Likert scale ranging from "not true at all" to "completely true". In this study, a five-point Likert scale ("strongly disagree," "disagree," "neutral", "agree," and "strongly agree") was used instead.

The third questionnaire contained the transfer intentions, supervisor support, transfer initiation and transfer maintenance scales used in the second questionnaire. See Transfer of Training Questionnaire (3), Appendix A.

The reliability and validity section identifies each construct and the process of achievement for the needed psychometric requirements of the researcher.

Reliability and Validity

General Self-Efficacy Scale (GSES)

Sherer et al. (1982) developed a *General Self-Efficacy Scale* (GSES) to measure generalized beliefs. After carefully examining the transfer of training literature regarding this construct, I determined that the GSES met the needs of this study.

The GSES scale was originally developed as a 36-item scale using a 14 point-Likert rating scale from strongly disagree to strongly agree (Sherer & Maddux, 1982). Three hundred and thirty-six psychology students were administered the GSES. A factor analysis was conducted. The 36 items focused on three areas: a) willingness to initiate, b) willingness to expend effort in completing the behavior, and c) persistence in the face of adversity. A scree test (Cattel, 1966) determined the number of factors to be rotated using the varimax method. Items that loaded at the .40 level or above were retained. Thirteen items did not meet this criterion and were discarded. The remaining 17 items measured self-efficacy without reference to any specific behavioral domain. The Cronbach Alpha reliability score is .86 (Sherer & Maddux, 1982).

To assess the construct validity of the GSES, scores on the instrument were correlated with measures of several other personality characteristics such as the Internal–External Control Scale (Rotter, 1966), Personal Control Subscale (Grain, Lao, & Beattie,

1969), Marlowe-Crown Social Desirability Scale (Crown & Marlow, 1964), Interpersonal Competency Scale (Holland & Baird, 1968); and the Rosenberg self-esteem scale (Rosenberg, 1965). These scales measure personality characteristics that are related to self-efficacy. To assess the criterion validity, there was a another study conducted to provide evidence of criterion validity of the GSES by demonstrating that past success experiences in vocational, educational and military areas positively correlated with scores on the GSES (Sherer & Adams, 1983). The second study of the GSES changed the scale to only five points but retained the Likert format.

Gardner and Pierce (1998) conducted a study to explore the interrelationship between, and the role of, self-esteem and self-efficacy within the organizational context. Generalized self-efficacy was measured with the 17-item scale developed by Sherer et al. (1982). The widely used generalized self-efficacy instrument (e.g., Eden & Kinner, 1991; Eden & Zuk, 1995; Woodruff & Cashman, 1993) asked respondents to indicate their degree of agreement-disagreement (using a five-point Likert-type scale) with statements such as "When I make plans I am certain I can make them work" and "When I have something unpleasant to do I stick to it until I finish it." Gardner and Pierce's investigation provided empirical support for the theoretical arguments that (a) organization–based self-esteem has positive effects on employee job attitudes and role behaviors; (b) self-esteem (i.e., organizational-based self-esteem) may, in part, be shaped by the individual's generalized feelings of efficacy; and (c) generalized self-efficacy's influence on employee attitudes and behavior operates through the effect that generalized self-efficacy has on employees' organization-based self-esteem.

Another study focused on the effect of self-efficacy, as well as other selected demographic variables, on the transfer of cross-cultural training and expatriate performance. Selected independent variables included self-efficacy, expatriate tenure, level of education, gender, age, marital status, level of foreign language competency and level of formal cross-cultural experience (Drewry, 2002). The adapted generalized self-efficacy scale (Sherer et al., 1982) that was used in the study was not tied to any specific situations and behaviors.

The study concluded that expatriates' perceived self-efficacy was found to be interactive with the transfer of cross-cultural training (CCT). While demographic variables such as expatriate tenure, level of education, gender, age, martial status, level of foreign language competency, and level of formal cross-cultural experience were found to have no correlation with the transfer of CCT, the test results show self-efficacy to have strong impact on expatriates' performance.

Transfer intentions scale

In the study, "Assessing the antecedents of transfer intentions in a training context" (Machin & Fogarty, 2004), researchers examined the underlying structure of transfer climate and those aspects of transfer climate that were related to pre-training self-efficacy, pre-training motivation and post training transfer implementation intentions. In order to measure the climate constructs and determine whether they have a direct influence on transfer motivation and transfer intentions, Machin and Fogarty (2004) developed a transfer implementation intentions scale. They developed eleven items specifically for this study to assess the trainees' intentions to engage in specific behaviors that would facilitate transfer of their skills. The transfer intentions scale is a subscale of a post-training questionnaire administered immediately after training.

The subscale was administered to employees of the Queensland Police Service who were undertaking advanced training for a computerized information system known as POLARIS (Machin & Fogarty, 2004). The participants were recruited from the 30 Police Districts in Queensland and were all experienced in the use of computers in police work. There were 137 trainees, who attended one of nine training courses and 104 trainees (76%) completed the post-training questionnaire.

Because the items had not been used before, Machin and Fogarty (2004) used Principal Component Analysis (PCA) to identify their dimensionality. For the measure of

transfer implementations intentions, three factors were extracted (goal setting, self-management and relapse prevention) accounting for 50.7%, 12.6% and 9.7% of the variance, respectively. Hambleton et al. (1991) suggested that where the initial factor extracted using PCA that accounted for a large proportion of the variance, and where the variance accounted for by the first factor is more than three times the variance accounted for by the second factor, the scale can be viewed as one-dimensional. In all cases, this was the pattern of the results and average scores on all scales included on the instrument that were used in subsequent analyses. The Cronbach alpha reliability coefficient reported for the transfer intentions scale was .82.

To reiterate, the three main areas that were targeted in the development of items as being crucial in promoting skills transfer were goal setting, self-management, and relapse prevention. However, items pertaining to seeking support from supervisors and peers, practicing the skills learned during training, and looking for opportunities to demonstrate the skills learned during training, were also included (Machin & Fogarty, 2004).

The aim of this research study was to go beyond an evaluation of transfer intentions and measure actual application of learning after participants returned to their work environment, which goes a step further than Machin and Fogarty's (2003) research study. After carefully examining the transfer of training literature regarding this construct, I determined that the transfer intentions scale appeared to meet the needs of this study.

Supervisor support scale

Holton, Bates, and Ruona (2000), authors of the Learning System Transfer Inventory (LSTI) believed that the lack of a well-validated and reasonably comprehensive set of scales to measure these transfer factors might be a barrier to improving the organizational transfer system. According to the authors, the fact that transfer researchers have not used acceptable scale development procedures is a significant problem. Without

minimally validated scales, the chance of substantive misspecification of models, misinterpretation of findings, and measurement error is significantly increased.

The LSTI, version 2, was developed using 63 items from Rouiller and Goldstein's (1993) instrument (Noe, 2000), also known as version 1 (Holton, Bates, & Ruona, 2000). Earlier research (Holton, Bates, Seyler, & Carvalho, 1997a, 1997b) reported on an attempt to validate the transfer system constructs and instrument proposed by Rouiller & Goldstein (1993) through factor analysis. Significant differences were found in the construct structure that led the authors of the LSTI to conclude that Rouiller & Goldstein's constructs may not have been an appropriate basis for a generalized instrument. However, version 1 of the instrument did show initial evidence of content, construct and criterion validity (Bates, Holton, & Seyler, 2000; Setler, et al., 1998). Subsequently, Holton, Bates & Ruona, (2000) used the HRD Research and Evaluation Model (Holton, 1996) as the theoretical framework to expand the constructs in the LSTI. Nine constructs from version 1 were included in the theoretical framework and the authors searched the literature to identify other constructs that had not been included in version 1 that would fit into the theoretical framework (Holton, Bates & Ruona, 2000).

The LSTI contains 112 items and it was created to assess 16 constructs affecting the ability to transfer learning, motivation to transfer and the transfer environment. The external validity of the LTSI is further enhanced by the use of samples from multiple industries. It was administered to 1616 training participants from a wide range of organizations during the initial testing (Holton, Bates, & Ruona, 2000). Currently, the authors have maintained a database with over 5000 respondents from many different professions. The respondents choose between 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree) or 5 (strongly disagree) concerning their transfer climate. The authors reported an exceptionally clean and interpretable sixteen-factor structure from exploratory factor analysis with alpha coefficients ranging from .56 to .91 to establish the construct validity and reliability of the measures (Noe, 2000). The 16 factors are divided

into two sections. The first section "Specific Training Program Scales" contains 11 subscales with a total of 76 items among them. The supervisor support construct is used in this study. The Cronbach Alpha score for supervisory support is .91. The second section "Training in General Scale" consists of 5 subscales with a total of 26 items that concentrate on the participant's overall perceptions of the transfer climate concerning all training in the organization.

The LSTI is based on a large and extremely diverse sample, which provides a high level of confidence that the instrument will work well across many types of training and in most organizations. Lastly, the LSTI built on the results of several previous research efforts and followed generally accepted instrument processes (Holton, Bates, & Ruona, 2000). As a result, I believed that the supervisor support subscale adapted from the LSTI was a good fit for this research study.

Transfer initiation scale

Developed by the researcher, this scale was piloted scale with 31 subjects and yielded a Cronbach alpha of .86. The trainees were asked to rate the degree to which they felt they had attempted to apply a list of course skills to their job based on a five-point scale of “strongly disagree,” “disagree,” “neutral,” “agree,” and “strongly agree.”

Transfer maintenance scale

Claiborne (2002) examined the relationship between trainee characteristics, situational cues and consequences in the work climate and transfer of training perceived by junior credit analysts. The questionnaire used to measure the transfer of training was adapted from a dissertation study by Richman (1998) who examined the effectiveness of post-training interventions, goal setting, and self-management on the transfer of training. In

the Claiborne study, the intent of the questionnaire was to measure the responses on generalization and maintenance of newly acquired cash flow analysis skills to the job. The questionnaire was sent to 96 employees who participated in a three-week credit-training program in 2001. There were 76 responders for a response rate of 79 percent, and the alpha score for the maintenance scale was .92 (Claiborne, 2002).

The study found that maintenance of newly acquired skills and knowledge was determined to be present in the work climate with task cues and feedback (Claiborne, 2002). Task cues as facilitators of training transfer are consistent with a number of factors (for example, support and opportunity to use) highlighted by Baldwin and Ford (1988) and Goldstein (1986) that influence transfer of training. Goldstein (1986) and Wexley & Latham (1981) indicated that the ability to perform trained tasks on the job is critical for skill maintenance. The results of the Claiborne study indicated that maintenance of newly acquired skills and knowledge might be predicted by task cues as well as feedback. After examining the training of transfer literature, I found the transfer maintenance scale adapted from the Claiborne study to be reliable, valid and determined that it met the needs of this research study for measuring transfer maintenance.

Data Collection

Data for this study were collected over a period of approximately three months at three data collection times: December 2007, January 2008 and March 2008. This effort built upon existing data collected at Time 1 on December 2006, March 2007 and September 2007.

Time 1

At Time 1, December 2007 (also December 2006, March 2007, and September 2007) the Employee Leadership Institute (ELI) facilitator asked all participants to complete

a consent form at the beginning of the training. This, the first data collection time, entailed the administration of a survey to collect data from the transfer intentions, General Self-efficacy (GSE) and supervisor support scales along with demographic data immediately after training. Participants were asked to complete the 40-item survey based on the leadership skills that they acquired during the three-day training.

Time 2

The second data collection time occurred in January 2008 approximately one month following ELI in December 2007. Also, data were collected at Time 2 to build upon existing data from December 2006, March 2007 and September 2007. The second survey collected data from the transfer intentions, supervisor support, transfer initiation and transfer maintenance scales. Participants were asked to complete the 27-item survey based on the leadership skills that they acquired during training.

Time 3

The third data collection time occurred approximately three months following ELI in March 2008. The third survey collected data from the transfer intentions, supervisor support, transfer initiation, and transfer maintenance scales. Also, data were collected at Time 3 that built upon existing data from December 2006, March 2007 and September 2007. Participants were asked to complete the 27-item survey based on the leadership skills that they acquired during training. Note how time 3 differs from time 2.

Table 3 illustrates the items used in each Transfer of Training Questionnaire and data collection at three points in time. Table 4, below, provides a Summary of Variables, Related Questions/Time Series, and the Scale related to each question on each of the three questionnaires. In this scenario the related questions, variables and measure of scale are reflected under the dependent variable and independent variables.

Table 3
Time Series and Questionnaire Administration

Time Series/Questionnaire	Items	Variable
Transfer of Training Questionnaire (1)	Items 7 thru 17	Transfer intentions
	Items 18 thru 34	General Self-efficacy
	Items 35 thru 40	Supervisor support
(Time 1) Transfer of Training Questionnaire (1) consisted of three measures: a) Transfer intentions (i.e. the participants' commitment to apply newly acquired skills learned during training, b) General self-efficacy (i.e. the participants' faith in their ability to perform successfully), and c) Supervisor support (i.e. participants' beliefs about the levels of supervisor support and whether participants would be encouraged to use newly learned skills in their work environment. The Time 1 Questionnaire was administered immediately after the last session of ELI in December 2007.		
Transfer of Training Questionnaire (2)	Items 1 thru 5	Transfer initiation
	Items 6 thru 11	Supervisor support
	Items 12 thru 22	Transfer intentions
	Items 23 thru 27	Transfer maintenance
(Time 2) Transfer of Training Questionnaire (2) consisted of four measures: a) Transfer initiation (i.e. attempt to apply the new skill in the work environment), b) Supervisor support, c) Transfer intentions and d) Transfer maintenance. The Time 2 Questionnaire was administered in January 2008, approximately one month after the December 2007 ELI to participants who completed that program and to those who finished in December 2006, March 2007, and September 2007.		
Transfer of Training Questionnaire (3)	Items 1 thru 5	Supervisor support
	Items 6 thru 11	Transfer maintenance
	Items 12 thru 22	Transfer intentions
	Items 23 thru 27	Transfer initiation
(Time 3) Transfer of Training Questionnaire (3) consisted of four measures: a) Transfer initiation, b) Supervisor support, c) Transfer intentions and d) Transfer maintenance. The Time 3 Questionnaire was administered in March 2008 approximately two months after the December 2007 ELI to participants who completed that program and those finished in December 2006, March 2007, and September 2007.		

Table 4
Summary of Variables, Related Questions with Time Series, and Scales

Variable	Related Questions (Time 1, 2 & 3)	Scale
Transfer Intentions Independent	• I will discuss with my supervisor ways to develop the skills that I have learned. • I will discuss with my co-workers ways to develop the skills that I have learned. • I will spend time thinking about how to use the skills that I have learned. • I will evaluate how successfully I can use the skills that I have learned. • I will look for opportunities to use the skills that I have learned. • I will review course materials in order to develop the skills that I have learned. • I will practice using the skills that I have learned. • I will set specific goals for maintaining the skills that I have learned. • I will seek expert help/advice in order to maintain the skills that I have learned. • I will examine my work environment for potential barriers to using the skills that I have learned. • I will monitor my success at using the skills that I have learned.	Continuum, 1-5 where 1 = Strongly Disagree 5 = Strongly Agree
Variable	**Related Questions (Time 1)**	**Scale**
GSES Independent	• When I make plans, I am certain I can make them work. • One of my problems is that I cannot get down to work when I should. • If I can't do a job the first time, I keep trying until I can. • When I set important goals for myself, I rarely achieve them. • I give up on things before completing them. • I avoid facing difficulties. • If something looks too complicated, I will not even bother to try it.	

Table 4 (Continued)
Summary of Variables, Related Questions with Time Series, and Scales

Variable	Related Questions (Time 1)	Scale
	• When I have something unpleasant to do, I stick to it until I finish it. • When I decide to do something, I go right to work on it. • When trying to learn something new, I soon give up if I am not initially successful. • When unexpected problems occur, I don't handle them well. • I avoid trying to learn new things when they look too difficult for me. • Failure just makes me try harder. • I feel insecure about my ability to do things. • I am a self-reliant person. • I give up easily. • I don't seem capable of dealing with most problems that come up in my life	Continuum, 1-5 where 1 = Strongly Disagree 5 = Strongly Agree
Variable	**Related Questions (Time 1, 2 & 3)**	
Supervisor Support Independent	• My supervisor meets with me regularly to work on problems I may be having in trying to use my training. • My supervisor meets with me to discuss ways to apply training on the job. • My supervisor shows interest in what I learn in training. • My supervisor sets goals for me, which encourage me to apply my training on the job. • My supervisor lets me know I am doing a good job when I use my training. • My supervisor helps me set realistic goals for job performance based on my training.	
Variable	**Related Questions (Time 2 & 3)**	
Transfer Initiation Dependent	• I have attempted to "model the way" by doing what I say I will do and demonstrating a personal example of what is expected in the work environment. • I have attempted to "inspire a shared vision" by having a positive outlook and painting the "big picture" of the county's' aspirations regarding customer service within my department.	

Table 4 (Continued)
Summary of Variables, Related Questions with Time Series, and Scales (Continuum, 1-5 where 1 = Strongly Agree to 5 = Strongly Disagree)

Variable	Related Questions (Time 2 & 3)	Scale
	• I have attempted to "encourage the heart" by celebrating accomplishments and praising my co-workers for a job well done within the work environment. • I have attempted to "enable others to act" by appreciating and developing strengths in my co-workers in order to achieve my department's mission. • I have attempted to "challenge the process" by taking risks and challenging myself and co-workers to try new approaches to their daily job duties and when working on projects.	Continuum, 1-5 where 1 = Strongly Disagree 5 = Strongly Agree
Variable	**Related Questions (Time 2 & 3)**	
Transfer Maintenance Dependent	• I have learned to use my training on the job. • Maintaining my trained skills on the job is something I'm good at. • I have mastered the continued use of my trained skills on the job. • I am proficient at maintaining my trained skills. • It is not possible for me to maintain my trained skills on the job.	

Data Analysis

This study looked at the multi-dimensionality of transfer by more critically examining the role of transfer initiation. The two temporal facets of training transfer, initiation and maintenance, were examined to evaluate their relationship with supervisor support and trainee characteristics (transfer intentions and General Self-efficacy (GSE)). Data analysis was facilitated using the most recent version of the Statistical Package for the Social Sciences (SPSS), version 13.0 (SPSS, 2004). As a starting point, frequency distribution and descriptive statistics were used to provide a summary profile of the participants and their responses to the Transfer of Training Questionnaire (1) at data collection time 1. As noted in the instrumentation section, I developed a scale and picked four subscales from existing instruments to measure the independent and dependent variables. Cronbach's alpha was used to determine the consistency of each measure: transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and transfer maintenance. These subscales, items from the questionnaires within them, and the original internal consistency scores are captured in Table 5.

Table 5

Internal consistency of Original Subscales

Subscale	# Items	Conbach's alpha
Transfer Intentions	11	.90
General Self-efficacy	17	.86
Supervisory Support	6	.91
Initiation	5	.86
Maintenance	6	.92

The nature of the research questions suggested the use of correlation analysis (Pearson product-moment and coefficient of determination) to summarize the relationships among the variables. A hierarchical regression analysis was also used to determine how much of the variance of the dependent variable was explained by the independent variables. The alpha level of .05 was used to determine the statistical

significance. A correlation matrix was created to facilitate the understanding of the relationships among the variables at times 1, 2 and 3. Table 6 details the suggested statistical analysis that was used to address each research question.

Table 6
Research questions, variables, and statistical analysis for each research question

Research Questions	Variables	Statistical Analysis
1. What is relationship between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation and maintenance?	Transfer intentions General self-efficacy(GSE) Supervisor support Transfer initiation Transfer maintenance	Correlation analysis Correlation matrix
2. What are the relative influences of General Self-efficacy (GSE) and supervisory support on transfer intentions?	<u>Independent</u> General self-efficacy Supervisor support <u>Dependent</u> Transfer intentions	Hierarchical regression analysis was used to determine the portion of variance in transfer intentions explained by general self-efficacy (GSE) and supervisor support. First step: GSE was entered into the regression model to determine the portion of variance in transfer intentions explained by GSE. Second step: supervisor support was entered into the regression model to determine the additional variance in transfer intentions not explained by general self-efficacy. I also looked at the total variance in transfer intentions explained by general self-efficacy and supervisor support.

Table 6 (Cont.)
Research questions, variables and statistical analysis for each research question

Research Questions	Variables	Statistical Analysis
3. What are the relative influences of transfer intentions, General Self-efficacy (GSE), and supervisory support on transfer initiation?	<u>Independent</u> Transfer intentions General self-efficacy (GSE) Supervisor support <u>Dependent</u> Transfer initiation	Hierarchical regression analysis was used to determine the portion of variance in transfer initiation explained by transfer intentions, GSE and supervisor support. First step: transfer intentions was entered into the regression model to determine the portion of variance in transfer initiation explained by transfer intentions. Second step: GSE was entered into the regression model to determine the additional variance in transfer initiation not explained by transfer intentions. Third step: supervisor support was entered into the regression model to determine the additional variance in transfer initiation not explained by transfer intentions and GSE. I also looked at the total variance in transfer initiation explained by transfer intentions, GSE and supervisor support on transfer initiation.

Table 6 (Cont.)
Research questions, variables and statistical analysis for each research question

Research Questions	Variables	Statistical Analysis
4. What are the relative influences of transfer initiation, transfer intentions, General Self-efficacy (GSE) and supervisory support on transfer maintenance?	<u>Independent</u> Transfer initiation General self-efficacy (GSE) Supervisor support <u>Dependent</u> Transfer maintenance	Hierarchical regression analysis was used to determine the portion of variance in transfer maintenance explained by transfer initiation, General Self-efficacy (GSE) and supervisor support. First step: transfer initiation was entered into the regression model to determine the portion of variance in transfer maintenance explained by transfer initiation. Second step: transfer intentions was entered into the regression model to determine the portion of variance in transfer maintenance not explained by transfer initiation. Third step: GSE was entered into the regression model to determine the additional variance in transfer maintenance not explained by transfer initiation and transfer intentions. Fourth step: supervisor support was entered into the regression model to determine the additional variance in transfer maintenance not explained by transfer initiation, transfer intentions, and GSE. I also looked at the total variance of transfer maintenance explained by transfer initiation, GSE, and supervisor support.

Chapter Summary

Chapter 3 set the stage for the research method used in this study by providing an overview of the sample, description of the training experience, data collection plan, procedures, instrumentation, and data analysis plan. The next chapter will discuss the findings of the statistical analysis, by using Chi-square computation and Analysis of Variance (ANOVA) to profile the participant responses to the demographic survey questions, reliability analysis on the instruments, correlation analysis to summarize the relationship among the variables, and hierarchical regression analysis to determine the statistical significance of the findings.

CHAPTER 4: RESEARCH FINDINGS

As planned, this study examined multiple influences (transfer intentions, General Self-efficacy (GSE), and supervisor support) on transfer initiation and transfer maintenance of leadership skills taught in a county government program's three-day Employee Leadership Institute (ELI). The study's intent was to measure actual transfer at three, six, nine, and twelve months. However, after data collection was completed, I measured transfer at one and fifteen months as well.

This Chapter explains the results and key findings of the data analysis that were used to describe participation in the study, characteristics of the participants, and the relationships among independent and dependent variables. The study included a reliability analysis to illustrate the consistency of the instruments, a correlation analysis to summarize the relationships among the variables, and a Chi-square computation and Analysis of Variance (ANOVA) to examine differences between demographic variables. Additionally, hierarchical regression analysis determined which of the independent variables could be used to predict or influence the dependent variables. Thus, collectively these analyses provided answers the following research questions:

1. What is the relationship between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and maintenance?
2. What are the relative influences of General Self-efficacy (GSE) and supervisory support on transfer intentions?
3. What are relative influences of transfer intentions, General Self-efficacy (GSE), and supervisory support on transfer initiation?
4. What are the relative influences of transfer initiation, transfer intentions, General Self-efficacy (GSE) and supervisory support on transfer maintenance?

The analysis showed General Self-efficacy (GSE) to be the most important influence on transfer intentions up to six months after ELI. Then, transfer intentions was

a better predictor than supervisor support and GSE to significantly influence the actual initiation of skills on the job obtained from ELI at six, nine months and one year. Once employees actually attempted to apply skills on the job, transfer intentions was a better predictor at six months for maintaining those skills over time (transfer maintenance); however, transfer initiation was a better predictor at nine months and one year.

Participation in the Study

As detailed in Chapter 3, three questionnaires were given to employees who attended a three-day Employee Leadership Institute (ELI) training program held in December 2007 as well as to employees who attended ELI in March 2007, September 2007 and December 2006. The Employee Leadership Institute (ELI) focuses on the following five leadership behaviors: (a) Model the way; (b) Inspire a shared vision; (c) Challenge the process; (d) Enable others to act; and (e) Encourage the heart. The overall response rate for the questionnaires was 53% resulting in a confidence level of 76% with a margin of error of +/- 4.93.

The overall response rate of 53% was somewhat expected because of possible attrition due to the employees leaving the county over a fifteen-month period. Plus, there was no external incentive for the participants to complete the survey immediately after ELI and during follow-up stages. This made it challenging to obtain a higher response rate. Some authors suggest that surveys should commonly yield response levels between 60% and 80% (e.g., Hoinville & Jowell, 1978), although response rates between 10% and 30% are not uncommon. There is no magic figure on response rates, but the higher the better (Boyd & Westfall 1972; Luck, Wales, & Taylor 1970). However, for the purpose of this study, the overall response rate was adequate because it resulted in a total of 67 participants who completed all three questionnaires and produced usable data. The response rates are summarized in Table 7.

Table 7
Response Rates

	Time 1 Response rate After ELI	Time 2 Response Rate On-line	Time 3 Response rate On-line	Total
		One month	Three Months	
December 2007				
Given	36	-	-	36
Returned	36	30	21	21
Response rate	100%	68%	58%	58%
Existing Participants		Three Months	Six Months	
September 2007				
Given	32	-	-	32
Returned	32	25	19	19
Response rate	100%	78%	59%	59%
		Nine Months	One Year	
March 2007				
Given	31	-	-	31
Returned	31	20	14	14
Response rate	100%	64%	45%	45%
		One Year	Fifteen Months	
December 2006				
Given	27	-	-	27
Returned	27	15	13	13
Response rate	100%	55%	48%	48%
Total				
Given	126	-	-	126
Returned	126	90	67	67
Response Rate	100%	71%	53%	53%

Participation at Time 1

The 36 participants who attended the Employee Leadership Institute (ELI) in December 2007 completed the Transfer of Training Questionnaire immediately after they finished ELI. (Time 1) Previously 32 participants who attended the September 2007 ELI, 31 participants who attended the March 2007 ELI, and 27 participants who attended the December 2006 ELI had completed the questionnaire at the end of the course. Thus, the total number of participants who responded to the first questionnaire totaled 126, yielding a 100% response rate.

Participation at Time 2

In January 2008, the December 2007 ELI cohort group participated in an online Transfer of Training Questionnaire (2) to measure actual transfer at one month. To build upon the existing data, the September 2007 ELI cohort group completed the same questionnaire to measure actual transfer at three months. The March 2007 ELI cohort group took the same questionnaire to measure actual transfer at nine months and the December 2006 ELI cohort group took it to measure transfer at one year. A total of 111 participants received the on-line follow-up questionnaire and 90 participants elected to participate, yielding an overall 71% response rate.

Fifteen attendees across the four Employee Leadership Institute (ELI) cohorts did not participate in this study at Time 2 because they terminated employment with the county. These included 4 of the 36 participants who attended the December 2007 ELI, 2 of the 32 participants who attended the September 2007 ELI, 4 of the 31 participants who attended the March 2007 ELI and 5 of the 27 participants who attended the December 2006 ELI.

Participation at Time 3

In March 2008, the December 2007 ELI cohort completed the final online follow-up Transfer of Training Questionnaire (3) to measure actual transfer at three months. To build upon the existing data, the September 2007 ELI cohort participated in the same questionnaire to measure actual transfer at six months. The March 2007 ELI cohort filled out the same questionnaire to measure actual transfer at one year and the December 2006 ELI cohort completed the same questionnaire to measure actual transfer at fifteen months. A total of 90 participants received the final on-line follow-up questionnaire and 67 participants elected to participate with the overall response rate dropping to 53%.

Transfer of Training Questionnaires

The Transfer of Training Questionnaires (found in Appendix A) measured responses associated with transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and transfer maintenance. They also gathered background information on the participants (age, gender, years of service, length of time working for current supervisor, level of education and race). In addition, the participants included the last 4 digits of their social security number in the block located on the top right corner of each questionnaire. This provided a basis upon which to link responses from Times 1, 2 and 3.

Characteristics of the Participants

Participants' Gender, Ethnicity, and Education level

The 67 participants were non-supervisors within the county government. A total of forty-three females (64.2%) participated in the study, most of whom were Caucasian (37 out of 43 or 86%). Other participants' had African American (10), Asian Pacific (2) and Native American (1) backgrounds. A total of twenty-four males (35.8%) participated

in the study; most of these were also Caucasian (17 out of 24 or 71%). Forty-two participants (62.7%) reported that their average educational level was between high school and associate degree (two-year degree), 19 participants (28.4%) reported being college graduates (four- year degree) and 6 (9%) participants indicated having a master's degree. As highlighted in Tables 8, 9 and 10, Chi square computation revealed no statistically significant difference between the multiple cohorts' gender, educational level, and ethnicity.

Table 8
Gender of Participants

Gender	Frequency/%	Chi Square (Sig.) 2.64 (.450)
Male	24 (35.8%)	
Female	43 (64.2%)	
Total	67 (100%)	

Table 9
Education Level of Participants

Education Level	Frequency	Chi Square (Sig.) 19.53 (.077)
High School	15 (22.4%)	
Some College	17 (25.4%)	
Two-Year Degree	10 (14.9%)	
Four-Year Degree	19 (28.4%)	
Masters Degree	6 (9.0%)	
Total	67 (100%)	

Table 10
Ethnic Group of Participants

Ethnic group	Frequency	Chi Square (Sig.) 5.65 (.781)
African-American	10 (14.6%)	
Caucasian	54 (80.6%)	
Asian Pacific	2 (30%)	
Native American	1 (1.5%)	
Other	0 (0%)	
Total	67 (100%)	

Participants' age, years of service and time with current supervisor

The majority of participants (56.8%) were age thirty-nine or younger; there were only four participants (6%) between the age of fifty-five and sixty years. All other participants (37.2%) were between the age of forty and fifty years. The average number of years of service was seven; forty-six participants (69%) reported their years of service as less than seven years. Fifty-four participants (66%) reported working with their current supervisor less than the average three years. An Analysis of Variance (ANOVA) revealed that there was no statistically significant difference between the cohorts' ages as well as years worked with current supervisor; however, the ANOVA did reveal a statistically significant difference regarding years of service (P = .017). Faerman and Ban (1993) found that demographic variables (such as education or training and years of experience) did not have any relationship to training effectiveness. The implication is that training should be offered broadly without preconceived notions about what groups are most likely to benefit. Therefore, while these significant differences do exist, it does not affect the results of this study. The distribution of participants' ages, years of service, and years worked with current supervisor are presented in Table 11.

Table 11
Years of Service and Work for Current Supervisor

Experience	N	Minimum	Maximum	Mean	Std. Deviation	Sig.
Age	67	22	60	39	10.65	.208
Years of Service	67	.4	26.0	6.833	5.99	.017
Worked w/current Supervisor	67	.1	19.0	3.261	3.21	.313

Description of Independent and Dependent Variables

Participants were asked to report their perceptions related to the five variables: transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation and transfer maintenance. Mean scores were calculated for each of these categories by summing responses and dividing by the number of items included within each category. Possible scores ranged from a high score of 5 and a low score of 1. A high score indicates, "strongly agree" and a low score reflects "strongly disagree' perceptions. Mean scores of the responses were summarized using descriptive statistics as presented in Table 12. These results are based on aggregate data (n=67).

Table 12
Responses to scaled variables

Variable	Scale Mean	SD	Median	Minimum	Maximum
		Independent Variable			
General Self-efficacy (Q1)	63.78	6.40	64.0	49	79
Transfer Intentions (Q1)	43.88	4.86	44.0	33	55
Transfer Intentions (Q2)	43.19	5.21	44.0	29	55
Transfer Intentions (Q3)	42.64	5.38	43.0	28	53
Supervisor Support (Q1)	22.11	4.42	23.0	10	30
Supervisor Support (Q2)	21.46	5.21	23.0	7	30
Supervisor Support (Q3)	22.68	6.05	24.0	6	30
		Dependent Variable			
Initiation (Q2)	22.05	3.73	22.0	8	25
Initiation (Q3)	20.25	3.21	20.0	8	25
Maintenance (Q2)	17.44	2.35	17.0	11	23
Maintenance (Q3)	17.32	2.16	17.0	11	24

Q1 = Questionnaire 1, Q2 = Questionnaire 2 and Q3 = Questionnaire 3

General Self-efficacy (GSE). The GSE scale included 17 items that measured individuals' belief in their ability to perform well in a variety of situations. The actual range of scores for this scale was from 49 to 79 with possible scores ranging from 17 to 85. The mean score of the scale was 63.78 (sd = 6.40), with a median of 64. Higher scores on this scale indicated that participants had positive perceptions of their ability to

perform well in a variety of situations. GSE items 19, 21, 22, 23, 24, 27, 28, 29, 33 and 34 were reverse coded.

Transfer Intentions. The transfer intentions scale (T1, T2, and T3) included 11 items and measured individuals' commitment to apply some key concepts or skills that they learned during training. The mean score of the scale ranged from 43.19 (sd = 5.21) to 43.88 (sd = 4.86), with a median range of 43 to 44. Actual scores ranged from 28 to 55, with possible scores ranging from 11to 55. Higher scores on this subscale indicated that participants had positive perceptions regarding transfer intentions.

Supervisor Support. The supervisor support scale (T1, T2, and T3) measured a supervisor's support and reinforcement for the use of knowledge and skills gained in training. This scale included six items. The actual range of scores for this scale was from 6 to 30 with possible scores ranging from 6 to 30. The mean score of the scale ranged from 21.46 (sd = 5.21) to 22.68 (sd = 6.05), with a median range of 23 to 24. Higher scores on this scale indicated that participants had positive perceptions of their supervisor's support for applying skills gained from training to their job.

Transfer Initiation. The initiation of transfer (T2) is a scale that included five items and measured the attempt to apply knowledge and skills gained from training to the job. The mean score on this scale was 22.05 (sd= 3.73), with a median of 22. Actual scores ranged from 8 to 25, with possible scores ranging from 5 to 25. Higher scores on this scale indicated positive perceptions regarding transfer initiation.

*Transfer Maintenance***.** Maintenance is a scale that included five items and measured the continued application of skills on the job over a period of time. The mean score on this scale was 17.32 (sd = 2.16), with a median of 17. Actual scores ranged from 11 to 24, with possible scores ranging from 5 to 25. Higher scores on this scale indicated more positive perceptions regarding maintenance.

Reliability of Measures

The concept of reliability refers to the consistency of measurement. As measurement error is considered a form of error that cannot be predicted or directly explained, a reliability analysis was conducted on the independent and dependent variable measures to determine their degree of consistency. Table 13 presents the coefficient alpha for the independent and dependent variables measured during this analysis. These results are based on aggregated data (n=67). The reliability of scales used in this study was considered adequate.

Table 13

Reliability of Measures

Subscale	Items	Conbach's alpha
Transfer Intentions		
T1	11	.85
T2	11	.91
T3	11	.90
General Self-efficacy	17	.74*
Supervisory Support		
T1	6	.91
T2	6	.93
T3	6	.91
Initiation	5	.82
Maintenance T2	5	.77**
Initiation	5	.83
Maintenance T3	5	.77**

*If item 31 on questionnaire 1 is deleted
**If item 27 on questionnaire 2 and 3 is deleted

The alpha coefficient for transfer intentions range from .85 to .91, General Self-efficacy (GSE) is .74, supervisor support ranges from .91 to .93, and initiation and maintenance of transfer is .82 and .77, respectfully. A minimally acceptable level of reliability based on Nunnally's (1978) recommendation is .70. The scales that achieved a Cronbach's alpha below the recommended .70 had items omitted to increase the alpha to

.70 or higher. Therefore, the alpha coefficients for these five subscales range from .74 to .93, which indicates that all scales have adequate reliability.

Results for Each Research Question

Four research questions were developed for this study. The first research question was answered using correlation analysis. The second, third and fourth research questions were answered using hierarchical regression analysis. An alpha level of .05 was used to determine statistical significance of the findings. Knowledge of the bivariate relationships between each independent variable and dependent variable assisted in the interpretation of the hierarchical regression results which presented a broader view of the factors that contributed to actual transfer at one, three, six, nine, twelve and fifteen months.

What Is The Relationship Between Transfer Intentions, General Self-Efficacy (GSE), Supervisor Support, Transfer Initiation And Maintenance? (Research Question 1)

In order to answer this research question, a correlation analysis was performed to determine the extent of the relationships between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation and transfer maintenance measured across three points in time. Table 14 reflects the results of correlation analysis, which revealed several positive significant correlations.

Table 14
Correlation Matrix of Research Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Transfer Intentions (T1)	-								
2. Transfer Intentions (T2)	**.46****	-							
3. Transfer Intentions (T3)	**.40****	**.79****	-						
4. GSE (T1)	**.29***	**.24***	**.31***	-					
5. Supervisor support (T1)	**.28***	.23	.16	.08	-				
6. Supervisor support (T2)	**.31***	**.34****	.24	.18	**.55****	-			
7. Supervisor support (T3)	**.34****	**.34****	**.40****	.30	**.59****	**.67****	-		
8. Transfer Initiation (T2)	**.28***	**.46****	**.48****	**.34****	.22	.15	.25	-	
9. Transfer Maintenance (T3)	**.31***	**.56****	**.53****	.02	.08	.07	.23	**.29***	-

*** p = < .05 ** p = < .01**

- Transfer intentions (T1), transfer intentions (T2), and transfer intentions (T3) were significantly correlated. However, the highest significant correlation was between transfer intentions (T2) and transfer intentions (T3) ($r = .79$, $p < .01$).

- GSE was significantly correlated with transfer intentions (T1), transfer intentions (T2) and transfer intentions (T3). The lowest significant correlation was between GSE and transfer intentions (T2) ($r = .24$).

- There was a weak correlation between GSE and transfer initiation (T2) ($r = .34$).

- There were weak correlations between transfer intentions (T1) and the supervisor support variables at T1, T2, and T3. The highest correlation among the supervisor support measures was (r = .34) at T3.

- There were weak correlations between transfer intentions (T2) and supervisor support (T2) and supervisor support (T3) (r = .34).

- There was a weak correlation between transfer intentions (T3) and supervisor support (T3) (r = .40), which was the highest correlation among the transfer intentions and supervisor support measures.

- Transfer initiation (T2) was moderately correlated to transfer intentions (T2) (r = .46) and transfer intentions (T3) (r = .48); there was a weak relationship with transfer intentions (T1) (r = .28).

- There was a weak correlation between transfer intentions (T1) and maintenance (T3) (r = .31). However, the highest significant correlation was (r = .56) between transfer intentions (T2) and maintenance (T3), followed by transfer intentions (T3) (r = .53).

- Supervisor support (T1), supervisor support (T2) and supervisor support (T3) were moderately significantly correlated. However, the highest significant correlation was between supervisor support (T2) and supervisor support (T3) (r = .67).

- Transfer initiation (T2) was significantly correlated with transfer maintenance (T3) ($r = .29$, $p < .05$)

Additional Analysis: Transfer Intentions and Supervisor Support Stable Across Time

In addition, a series of ANOVA repeated measures were conducted to examine whether the employee's perception of transfer intentions and supervisor support changed over time. As noted in chapter one, GSE has been conceptualized as a relatively stable generalized belief (trait); therefore, it was measured at time 1 only. The GSE variable was not included in the ANOVA. The mean scores for transfer intentions and supervisor support at time 1, time 2 and time 3 are displayed in tables 15 and 16

Table 15
Transfer Intentions Repeated Measures ANOVA

N	T. Intentions 1 Mean	T. Intentions 2 Mean	T. Intentions 3 Mean
67	43.88	43.19	42.64

A repeated measures one-way ANOVA revealed that there were no significant differences in transfer intentions between the three times of measurement, F (1, 66) = 2.18, $p > .05$. An examination of the means for transfer intentions at time 1, 2 and 3 suggests that the average perception of transfer intentions was lowest at time 3, highest at time 1, and in between these two means at time 2. The transfer intentions variable remained stable across all three points in time.

Table 16
Supervisor Support Repeated Measures ANOVA

N	S. Support 1 Mean	S. Support 2 Mean	S. Support 3 Mean
67	22.11	21.46	22.68

A repeated measures one-way ANOVA revealed that there were no significant differences in supervisor support between the three times of measurement, F (1, 66) = 2.24, $p > .05$. An examination of the means for supervisor support at time 1, 2 and 3 suggests that the average perception of supervisor support was lowest at time 2, highest at time 3, and in between these two means at time 1. The supervisor support variable remained stable across all three points in time.

What Are The Relative Influences Of General Self-Efficacy (GSE) And Supervisory Support On Transfer Intentions? (Research Question 2)

Hierarchical regression was used to answer this research question in order to determine the best predictor variable. The independent variables entry was based on the logic of their effects order in the transfer literature. General Self-efficacy (GSE) may influence goal-setting effects by affecting the level of the goal chosen and the commitment that individuals have for a particular goal (Bandura, 199; Latham & Locke, 1991). General Self-efficacy (GSE) was entered first since it should be the first between the two variables to affect transfer intentions. Note: the hierarchical regression analysis produced non-statistically significant results at three, nine, twelve, and fifteen months.

Immediately after the Employee Leadership Institute (ELI)

As detailed in Table 17, in step 1 of the regression analysis, when GSE was regressed on transfer intentions, the model revealed that GSE explained a statistically significant almost 9% variance in transfer intentions, r2 = .087, immediately after ELI. Step 2 of the regression analysis added the supervisor support variable, which produced a significant change in r2 of .066 or almost 7%. Therefore, using this specific order of entry, the GSE variable was the better predictor of transfer intentions than supervisor support and the total variance in transfer intentions explained by GSE and supervisor support was 15%.

Table 17
Hierarchical Regression Analysis on Transfer Intentions immediately after ELI

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
GSE	.087**	087**	.294**
Step 2			
Supervisor Support	.153**	.066**	.258**

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multicollinearity assumption (Pallant, 2005).

One Month after ELI

As shown in Table 18, in step 1 of the regression analysis, when GSE was regressed on transfer intentions, GSE accounted for a significant variance of 30% in transfer intentions, r2 = .302, $p < .05$. Step 2 of the regression analysis added the supervisor support variable to the model. The model produced a non-statistically significant change in r2 of .004 or .04%, $p > .05$). Therefore, using this specific order of entry, the GSE variable was a better predictor of transfer intentions than supervisor support and the total variance in transfer intentions explained by GSE and supervisor support was 30%.

Table 18
Hierarchical Regression Analysis on Transfer Intentions at One Month

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
GSE	.302**	.302**	.549**
Step 2			
Supervisor Support	.305**	.004	-.063

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multicollinearity assumption (Pallant, 2005).

Six Months after ELI

As shown in Table 19, in step 1 of the regression analysis, when GSE was regressed on transfer intentions, GSE accounted for a significant variance of almost 23% in transfer intentions, r2 = .225, p < .05. Step 2 of the regression analysis added the supervisor support variable to the model. The model was statistically significant (p < .05) with a change in r2 of .173, indicating that 17% of the variance in transfer intentions was explained by supervisor support. Therefore, using this specific order of entry, the GSE variable was a better predictor of transfer intentions than supervisor support and the total variance in transfer intentions explained by GSE and supervisor support was almost 40%.

Table 19
Hierarchical Regression Analysis on Transfer Intentions at Six Months

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
GSE	.225**	.225**	.474**
Step 2			
Supervisor Support	.398**	.173**	.520**

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multicollinearity assumption (Pallant, 2005).

What Are The Relative Influences Of Transfer Intentions, General Self-Efficacy (GSE), and Supervisory Support On Transfer Initiation? (Research Question 3)

Hierarchical regression was used to answer this research question in order to determine the best predictor variable. The independent variables entry was based on the logic of their effects order in the transfer literature. It has been proposed that the trainee develops intentions to transfer as a precursor to initiating any transfer-related actions (Machin & Fogarty, 1997; Tubbs & Ekeburg, 1991). And, GSE may influence goal-setting effects by affecting the level of the goal chosen and the commitment that individuals have for a particular goal (Latham & Locke, 1991; Bandura, 1991). Therefore, transfer intentions was entered first since it should be the first among the three variables to affect transfer initiation and GSE was entered second. Supervisor support was entered third because many have argued that the employee's immediate supervisor has the greatest direct influence on the learner's behavior in applying what was learned in training on the job. Note: the hierarchical regression analysis produced non-statistically significant results at one and three months.

Six Months after ELI

As detailed in Table 20, in step 1 of the regression analysis, when transfer intentions was regressed on transfer initiation, the model was significant ($P < .05$) with an r2 of .406 or 41%. Step 2 of the regression analysis added the GSE variable to the model, which produced a non-significant change in r2 of .010 or 1%. Step 3 of the regression analysis added supervisor support to the model, which produced a non-significant change in r2 of .003 or .03%. Therefore, using this specific order of entry, transfer intentions was a better predictor variable than GSE and supervisor support. The total variance in transfer initiation was explained by transfer intentions at six months after ELI.

Table 20
Hierarchical Regression Analysis on Transfer Initiation at Six Months

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer intentions	.406**	.406**	.637**
Step 2			
GSE	.416	.010	.112
Step 3			
Supervisor Support	.419	.003	.082

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multicollinearity assumption (Pallant, 2005).

Nine Months after ELI

As detailed in Table 21, in step 1 of the regression analysis, when transfer intentions was regressed on transfer initiation, the model was significant (P < .05) with an r2 of .480 or 48%. Step 2 of the regression analysis added the GSE variable, which produced a non-significant change in r2 of .062 or 6.2%. Step 3 of the regression analysis added the supervisor support variable, which produced a non-significant change in r2 of .002 or .02%. Therefore, using this specific order of entry, the total variance in transfer initiation was explained by transfer intentions at nine months after ELI.

Table 21
Hierarchical Regression Analysis on Transfer Initiation at Nine Months

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer intentions	.480**	.480**	.639**
Step 2			
GSE	.542	.062	.261
Step 3			
Supervisor Support	.544	.002	.053

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multicollinearity assumption (Pallant, 2005).

One Year after ELI

As detailed in Table 22, in step 1 of the regression analysis, when transfer intentions was regressed on transfer initiation, the model was significant (P < .05) with an r2 of .371. Step 2 of the regression analysis added the GSE variable, which produced a non-significant change in r2 of .096 or 9.6% to the model. Step 3 of the regression analysis added the supervisor support variable, which produced a non-significant change in r2 of .011 or 1.15% to the model. The model was not significant (p >.05) with a change in r2 of .011. Therefore, using this specific order of entry, the total variance in transfer initiation explained by transfer intentions was 37% at one year after the Employee Leadership Institute (ELI). Thus, transfer intentions was a better predictor of transfer initiation than GSE and supervisor support.

Table 22
Hierarchical Regression Analysis on Transfer Initiation at One Year

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer intentions	.371**	.371**	.609**
Step 2			
GSE	.467	.096	.313
Step 3			
Supervisor Support	.478	.011	-.183

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multi-collinearity assumption (Pallant, 2005).

Fifteen Months after ELI

As detailed in Table 23, in step 1 of the regression analysis, when transfer intentions was regressed on transfer initiation, the model was significant (P < .05) with an r2 of .384. Step 2 of the regression analysis added the GSE variable, which produced a non-significant change in r2 of .008 or .08% to the model. Step 3 of the regression analysis added the supervisor support variable, which produced a non-significant change

in r2 of .005 or .05% to the model. Therefore, using this specific order of entry, the total variance in transfer initiation explained by transfer intentions was 38% at fifteen months after the Employee Leadership Institute (ELI). Thus, transfer intentions was a better predictor of transfer initiation than GSE and supervisor support.

Table 23
Hierarchical Regression Analysis on Transfer Initiation at Fifteen Months

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer intentions	.384**	.384**	.619**
Step 2			
GSE	.392	.008	-.093
Step 3			
Supervisor Support	.397	.005	.077

*p<.05

Therefore, the regression analysis results suggest that the presence of transfer intentions once back in the work environment is a better predictor than General Self-efficacy (GSE) and supervisor support to significantly influence employees' initiation of skills on the job at six, nine, twelve and fifteen months.

What Are Relative Influences Of Transfer Initiation, Transfer Intentions, General Self-Efficacy (GSE), And Supervisory Support On Transfer Maintenance? (Research Question 4)

Hierarchical regression was used to answer this research question in order to determine the best predictor variable. The independent variables entry was based on the logic of their effects order in the transfer literature. The key difference between transfer initiation and transfer maintenance is their temporal ordering; initiation must occur before maintenance. Initiation deals with the most proximal manifestations of transfer, according to Laker (1990). Therefore, transfer initiation was entered first since it should

be the first among the four variables to affect transfer maintenance. The other three variables were entered next based on the logic noted earlier. Note: the hierarchical regression analysis produced non-statistically significant results at three months.

One Month after ELI

Table 24
Hierarchical Regression Analysis on Transfer Maintenance at One Month

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer initiation	.229**	.229**	.479**
Step 2			
Transfer intentions	.431**	.202**	.482**
Step 3			
GSE	.577**	.145**	.456**
Step 4			
Sup. Support	.577	.001	.025

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multi-collinearity assumption (Pallant, 2005).

See Table 24, in step 1 of the regression analysis. When transfer initiation, transfer intentions, GSE and supervisor support was regressed on transfer maintenance, the model was significant (P > .05) with an r2 of almost 23%. Step 2 of the regression analysis added the transfer intentions variable to the model. The model was significant (p <.05) with a change in r2 of .202 or 20%. Step 3 of the regression analysis added GSE to the model. The model was significant (p >.05) with a change in r2 of .145 or almost 15%. Step 4 of the regression analysis added supervisor support to the model. The model was not significant (p >.05) with a change in r2 of .001. Therefore, using this specific order of entry, transfer initiation, transfer intentions and GSE explained almost 58% of the total variance in transfer maintenance.

Six Months after ELI

Table 25
Hierarchical Regression Analysis on Transfer Maintenance at Six Months

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer initiation	.016	.016	.126
Step 2			
Transfer intentions	.391**	.375**	.795**
Step 3			
GSE	.396	.004	.076
Step 4			
Sup. Support	.445	.049	-.315

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multicollinearity assumption (Pallant, 2005).

See Table 25. In step 1 of the regression analysis, when transfer initiation, transfer intentions, GSE and supervisor support was regressed on transfer maintenance, the model was not significant (P > .05) with an r2 of .016. Step 2 of the regression analysis added the transfer intentions variable to the model. The model was significant (p <.05) with a change in r2 of .375 or 38%. Step 3 of the regression analysis added GSE to the model. The model was not significant (p >.05) with a change in r2 of .004. Step 4 of the regression analysis added supervisor support to the model. The model was not significant (p >.05) with a change in r2 of .049. Therefore, using this specific order of entry, the total variance in transfer maintenance was explained by transfer intentions at six months after ELI.

Nine Months after ELI

Table 26
Hierarchical Regression Analysis on Transfer Maintenance at Nine months

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer initiation	.409**	.409**	.640**
Step 2			
Transfer intentions	.432	.023	.208
Step 3			
GSE	.512	.080	.317
Step 4			
Sup. Support	.560	.048	-.257

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multi-collinearity assumption (Pallant, 2005).

As Table 26 illustrates, in step 1 of the regression analysis, when transfer initiation, transfer intentions, GSE and supervisor support was regressed on transfer maintenance, the model was significant (P < .05) with an r2 of .409 or almost 41%. Step 2 of the regression analysis added the transfer intentions variable, which produced a non-significant change in r2 of .023 or 2.3%. Step 3 of the regression analysis added the GSE variable to the model, which produced a non-significant change in r2 of .080 or 8.0%. The Step 4 of the regression analysis added supervisor support to the model, which produced a non-significant change in r2 of .048 or 4.8%. Therefore, using this specific order of entry, the total variance in transfer maintenance was explained by transfer initiation at nine months after ELI.

One Year after ELI

Table 27
Hierarchical Regression Analysis on Transfer Maintenance at One Year

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer initiation	.615**	.615**	.784**
Step 2			
Transfer intentions	.616	.002	.051
Step 3			
GSE	.619	.002	.054
Step 4			
Sup. Support	.623	.005	-.079

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multi-collinearity assumption (Pallant, 2005).

As Table 27 indicates, in step 1 of the regression analysis, when transfer initiation, transfer intentions, GSE and supervisor support was regressed on transfer maintenance, the model was significant (P < .05) with an r2 of .615 or almost 62%. Step 2 of the regression analysis added the transfer intentions variable to the model, which produced a non-significant change in r2 of .002 or .02%. Step 3 of the regression analysis added the GSE variable to the model, which produced no change in r2. Step 4 of the regression analysis added the supervisor support variable to the model, which produced a non-significant change in r2 of .005 or .05%. Therefore, using this specific order of entry, the total variance in transfer maintenance was explained by transfer initiation at one year after ELI.

Fifteen Months after ELI

Table 28
Hierarchical Regression Analysis on Transfer Maintenance at Fifteen Months

Independent variable	R-Square	R-square change	Beta Weight
Step 1			
Transfer initiation	.614**	.614**	.784**
Step 2			
Transfer intentions	.627	.013	.145
Step 3			
GSE	.628	.001	.031
Step 4			
Sup. Support	.662	.034	.194

p<.05**. Variance inflation factor (VIF) values for all predictors were well below a cut-off value of 10, indicating no violation of the multicollinearity assumption (Pallant, 2005).

When transfer initiation, transfer intentions, GSE and supervisor support were regressed on transfer maintenance, Table 28 shows that in step 1 of the regression analysis, the model was significant (P < .05) with an r2 of .614 or almost 61%. Step 2 of the regression analysis added the transfer intentions variable to the model, which produced a non-significant change in r2 of .013 or 1.3%. Step 3 of the regression analysis added the GSE variable to the model, which produced no change in r2 of .001 or .01%. Step 4 of the regression analysis added the supervisor support variable to the model, which produced a non-significant change in r2 of .034 or 3.4%. Therefore, using this specific order of entry, the total variance in transfer maintenance was explained by transfer initiation at fifteen months after ELI.

In conclusion, the regression analysis suggests that General Self-efficacy (GSE) was the most important influence on transfer intentions up to six months after ELI. Then, transfer intentions was a better predictor than supervisor support and GSE to significantly influence the actual initiation of skills on the job obtained from ELI at six, nine months and one year. Once employees actually attempted to apply skills on the job, transfer intentions was a better predictor at six months for maintaining those skills over time

(transfer maintenance); however, transfer initiation was a better predictor at nine months and one year.

Conclusion

This chapter provided the results from the data analyses that were used to describe the sample, the relationship among the independent and dependent variables and answer the four research questions developed for this study. Chapter 5 will discuss the results, present implications, conclusions, and recommendations based on the results.

CHAPTER FIVE: SUMMARY, RECOMMENDATIONS, AND CONCLUSIONS

This chapter begins with a summary of the research, the findings, and discussion directly related to the research questions. The limitations address the issues that may have occurred in the procedures, instrumentation, flaws in the research design, or problems in the execution of the study. Finally, this chapter ends with a description of practice implications, recommendations, and conclusions.

Study Overview

When organizations invest in training employees, and employees do not transfer newly acquired skills and knowledge back to the job, the result is a waste of financial resources and lower productivity within the organization. Understanding the factors, such as transfer intentions, General Self-efficacy (GSE) and supervisor support, that influence individuals' choices, in particular their choice to use or not to use training on the job, would be valuable in predicting why trainees transfer training to the work environment (Laker, 1990). Research and theories including the Baldwin & Ford (1988) model; Thayer, P. W., & Teachout, M. S. (1995) model and Holton, E. (1996) model, along with other studies such as Laker's (1990), "Dual Dimensionality of Training Transfer," collectively formed the body of knowledge used to identify independent variables as well as dependent variables that were examined in this study.

The purpose of this study was to examine the multiple influences of General Self-efficacy (GSE), transfer intentions and supervisor support on transfer initiation and transfer maintenance of leadership skills taught in a county government program's three-day Employee Leadership Institute (ELI). ELI was created to give non-supervisory employees a well-defined path aimed at improving leadership and personal effectiveness skills. The study explored a conceptual framework of the transfer of training (see Chapter 1).

Three questionnaires (Appendices A, B and C) were given to county employees who attended ELI held in December 2007 at three points in time. These questionnaires collected demographic information and surveyed employees' perceptions of the relative influence of transfer intentions, GSE, supervisor support on transfer initiation and transfer maintenance. Employees responded based on a self-report basis. The responses at each point in time built upon existing data collected from employees who attended the March 2007, September 2007 and December 2006 ELIs, and the overall response rate was 53%. In all, 67 participants completed all three surveys and became the study's sample.

Existing instruments used in previous research that had shown to be reliable and valid were used to collect the data on transfer intentions, GSE, supervisor support and transfer maintenance. I developed five items for the transfer initiation scale.

Data compiled from the questionnaires completed by the participants were analyzed using several statistical techniques. Chi-square computation and Analysis of Variance (ANOVA) were used to provide a profile of the participants. Reliability analysis was used to support the accuracy of the instruments to measure what they purport to measure and items were deleted as necessary due to low reliability of a measurement scale. Descriptive statistics were used to provide a baseline for the scaled variables. Correlation analysis summarized the relationship between the variables and hierarchical regression analyses were used to answer the research questions.

The participants in this study were generally female, and Caucasian. The majority of the male participants reported their ethnicity as Caucasian as well. The sample was also comprised of African Americans, Asian Pacific and Native Americans. Most participants held bachelor's degrees, had worked almost seven years or less in the work force and had worked for their current supervisor three years or less. The average age was 39 years old.

Summary of Findings

Four research questions guided this study, bivariate correlations and hierarchical regression were used to test the relationships in the proposed conceptual transfer framework. The research questions and related results are as follows:

1. *What is the relationship between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and transfer maintenance?*

Employees with the intent to initiate and maintain their newly learned skills on the job at times 2 and 3 (back in the work environment) were more likely to have the support from their supervisors and the presence of GSE. Those employees with the presence of GSE at time 1 (immediately after ELI) were more likely to attempt to apply their newly learned skills on the job once back in the work environment. Those employees who felt that they applied those skills on the job were more likely to maintain those skills on the job overtime. In addition, the transfer intentions and supervisor support variables remained stable across all three points in time.

2. *What are the relative influences of General Self-efficacy (GSE) and supervisory support on transfer intentions?*

General Self-efficacy (GSE) accounted for 23% of the variance in transfer intentions up to six months after ELI and supervisor support accounted for 17%. Therefore, employee's with the presence of GSE at six months influenced their intention to attempt to apply their newly learned skills on the job more than supervisor support.

3. *What are the relative influences of transfer intentions, General Self-efficacy (GSE), and supervisory support on transfer initiation?*

Employees perceived that transfer intentions were the more important influence on transfer initiation than GSE and supervisor support between six and fifteen months

after ELI. More specifically, transfer intentions accounted for 41% (six months), 48% (nine months), 37% (twelve months), and 38% (fifteen months) of the variance in transfer initiation.

4. *What are the relative influences of transfer initiation, transfer intentions, General Self-efficacy (GSE) and supervisor support on transfer maintenance?*

Employees perceived that transfer initiation was a more important influence on transfer maintenance than transfer intentions, GSE and supervisor support at one, nine, twelve and fifteen months. Transfer initiation accounted for 23%, 41%, 62 %, and 61% of the variance in transfer maintenance at one, nine, twelve and fifteen months. Transfer intentions accounted for 38% at six months.

Conceptual Transfer Framework Revised

The Conceptual Transfer Framework was revised to accurately reflect the results from this study. Figure 7 represents the revised Conceptual Transfer Framework, which described the fluid relationship(s) between transfer intentions, General Self-efficacy (GSE), supervisor support, transfer initiation, and transfer maintenance. The arrows in the model describe the underlying associations among the variables that exist based on participants perceptions of the variables measured immediately after ELI up to fifteen months later.

Conceptual Transfer Framework Revised

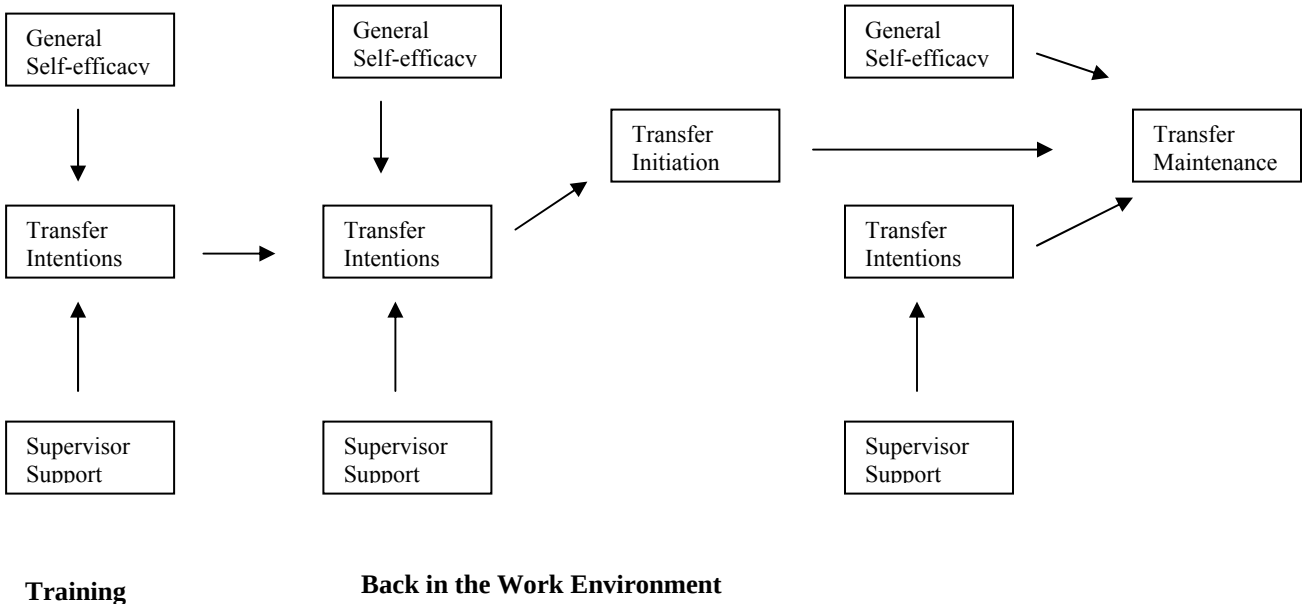

Figure 6. Conceptual Transfer Framework Revised that provides a visual representation of the relationship that exist between the variables contained in this study based on the results (2009).

Discussion of the Findings

The results suggest that employees' perception of the influence of transfer intentions, General Self-efficacy (GSE) and supervisor support on the transfer on training (transfer initiation and transfer maintenance) are important factors for determining transfer at one, three, six, nine, twelve and fifteen months. In other words, if new skills are to be transferred to the work environment, employees must be committed, receive support from their supervisors, and have confidence in their capability to use what they have learned. The importance of transfer intentions in this study is consistent with findings in previous research (Machin & Fogarty, 2004). The GSE and supervisor support variables did not significantly affect transfer initiation and GSE did not have a consistent effect on transfer maintenance, which was unexpected. This will be discussed later.

There has been little comparative research done on measuring end-of-course transfer intentions and its effect on the transfer process. This study's results offered confirmation that those employees with the presence of post-training transfer intentions will be more likely to apply new skills on the job between six and fifteen months after ELI than those employees who lack confidence and their supervisor's support.

Transfer Intentions

It was proposed that the trainee develops an intention to transfer as a precursor to initiating any transfer-related actions (Machin & Fogarty, 1997; Tubbs & Ekeburg, 1991). Transfer intentions is a trainee variable thought to play an important role in the transfer process. Based on the transfer literature, one would expect that the presence of post-training transfer intentions would directly affect transfer initiation. Therefore, as predicted, employees' intention to transfer newly learned skills obtained from the Employee Leadership Institute (ELI) was a better predictor of transfer initiation than General Self-efficacy (GSE) and supervisor support at six, nine, twelve and fifteen months after ELI. These results suggest that employees' perception of transfer intentions was the most important variable for predicting transfer initiation.

General Self-efficacy (GSE)

The motivation to transfer is the intention of the learner to use the skills on the job, and is influenced by learners' confidence in their ability to use those new skills (Noe, 1986). Between GSE and supervisor support, GSE was the better predictor of transfer intentions immediately after ELI up to six months. This is noteworthy because employees may be motivated to learn the material presented in training, but if they are not efficacious with respect to the task or skill to be acquired they will be less likely to have intentions to attempt it on the job. Similarly, individuals low in self-efficacy will be less likely to actually attempt to transfer learned material back to the job. Also, highly efficacious people will likely be more committed to goals because they are confident in their ability to achieve them.

Supervisor Support

A concern for many employers is that once the training is complete and the employee is back in the workplace, the training is not always put into practice (Baldwin & Ford, 1988). Lack of support for using skills learned in training can take many different forms such as "a recalcitrant supervisor, hostile co-workers, resistant subordinates, or even company policy" (Hawthorne, 1987, p. 30). Jones (1995) argues that the employee's immediate supervisor has the greatest direct influence on the learner's behavior in applying what was learned in training on the job. If the supervisor ignores, punishes, or discourages skill use, employees are not going to use the skills they have learned. The unsupported employee continues to repeat old behaviors, and managers and employees come to view training as a waste of time (Brinkerhoff, 1997).

Supervisor support was not correlated with transfer initiation and transfer maintenance in this study, this was unexpected. A possible explanation could be that the presence of transfer intentions and GSE are more powerful ways of overcoming obstacles to transfer newly learned skills on the job.

Transfer Initiation and Transfer Maintenance

Transfer initiation represents the initial application of the new skill on the job; it is the attempt to apply the training in the work environment (Laker, 1990). The notion is that even though the participant has retained the new skill, application of that skill on the job is not always successful (Laker, 1990). Therefore, detection of initiation is useful because most trainees' initial attempts at the newly learned skills or behaviors are normally difficult, awkward, uncomfortable and occasionally unsuccessful (Rackman, 1979). Early detection can identify opportunities for support and external rewards to help reinforce initial efforts of application. The results of this study suggest that transfer intentions was the better predictor of transfer initiation at six, nine, twelve and fifteen months when compared to GSE and supervisor support.

Once transfer initiation is achieved, the next step is to maintain the newly learned skills on the job over time. Transfer maintenance is the participant's proficiency in applying the learning and skills gained in training on the job (Laker, 1990). Transfer maintenance can be viewed as a permanent change in an individual's behavior, skill, and/or attitude, among other things; it represents the continuous application of skills and behaviors on the job over time (Laker, 1990). Transfer initiation was a better predictor of transfer maintenance. These results indicated that employees, who were able to successfully apply newly learned skills on the job, were more likely to maintain them on the job at one, nine, twelve and fifteen months.

Implications for Practice

A number of important implications arise from these findings. Transfer intentions and transfer initiation appear to be key predictors of longer-term transfer (transfer maintenance). If ensuring that participants successfully transfer newly learned skills obtained from ELI back in the work environment is important to this county, it may mean more than providing the opportunity for training. It may require providing encouragement for skill use and providing participants with training-related goals to be attained once back in the work environment.

In addition, the participants' intentions to apply newly learned skills on the job is a better predictor of transfer initiation at six, nine, twelve and fifteen months after ELI than GSE and/or supervisor support. This finding indicated that those participants who were originally more committed immediately after ELI were more likely to put more effort into initially transferring and subsequently maintaining those skills on the job. The employees' full commitment to initiate what they have learned from ELI is shown to be central to the potential success of transferring learning to their work environment. In addition, in order to increase the potential success of transfer, supervisors need to be influential in shaping positive attitudes towards training, learning, and development within the work environment. The results of this study provide a great opportunity for

this county government to examine its supervisory support role in the transfer of training process.

In contrast to the need for this county government to examine the role of the supervisor for ways to increase transfer, focusing on interventions to promote confidence and commitment within employees may be helpful for increasing transfer from the employee's perspective. The results of the study showed that transfer intentions was the most important variable directly affecting initial transfer and GSE was the most important variable indirectly effecting initial transfer. This could mean that an employee's commitment (intentions) and confidence (GSE) in his or her ability to perform the newly learned skill on the job immediately after a training experience would more likely lead to actual initiation and maintenance of those skills on the job over time. The focus would be on the trainee characteristics (transfer intentions, GSE, etc.) more so than the environmental variables (i.e. supervisor support) for the goal of increasing transfer. Also, the results showed that once the employees felt that they were able to apply the skill(s) on the job, they were more likely to maintain them over time. Therefore, it appeared that the employees who attended the Three-day Employee Leadership Institute (ELI) were able to actually apply and maintain newly learned skills on the job without much direction or help from their supervisors.

Overall, the results in this study sustain the view that transfer intentions, General Self-efficacy (GSE) and supervisor support are predictive of the transfer of training at different times. In this county's case, the trainee variables (transfer intentions and GSE) were the most important variables affecting transfer rather than supervisor support (environment variable). However, participants may not consistently initiate and maintain skills on the job even if they return to a supportive work environment. The result is that transfer of training eventually fails. According to Marx (1982) and Baldwin and Ford (1988), some employees do not know how to plan for the initiation of the new skill, some initiate too soon, and some give up on the first sign of difficulty. By strengthening employees' confidence and commitment to apply the newly learned skill before they return to their work environment, the county may hopefully decrease inhibitors to transfer

as well. Therefore, as Foxon (1993) suggests, rather than leave transfer to chance, stakeholders must create and implement strategies to improve the chances for successful initiation and maintenance of newly learned skills on the job.

Recommendations for Future Research

Based on the findings, discussion and implications of the study, the recommendations for future research are listed below:

- Study in more detail the role of transfer intentions, General Self-efficacy (GSE) and supervisor support on transfer initiation and transfer maintenance using a larger sample. The reason is to look at GSE as a moderating variable and transfer intentions and supervisor support as mediating variables. It may be that GSE and supervisor support play a larger role in the transfer process than illustrated in this study.
- Conduct a similar study and collect data from supervisors in order to validate the self-report data.
- Study the role of technology on trainee characteristics and its impact on transfer initiation and transfer maintenance. Understand and evaluate the impact of the new modes of e-learning on the transfer of training.
- Conduct a similar study and look at strategically important taught skills to determine what variables are most supportive of transfer from an organizational perspective.

Conclusion

When organizations invest in training employees, and employees do not transfer newly acquired skills and knowledge back to the job, the result is a waste of financial resources and lower productivity within the organization.

This study examined multiple influences (transfer intentions, General Self-efficacy (GSE), and supervisor support) on transfer initiation and transfer maintenance of

leadership skills taught in a county government program's three-day Employee Leadership Institute (ELI) to measure actual transfer at one, three, six, nine, twelve months and fifteen months.

Three questionnaires (Appendices A, B and C) were given to employees at three points in time who attended ELI held in December 2007. These questionnaires collected demographic information and surveyed employees' perception of the relative influence of transfer intentions, GSE, supervisor support on transfer initiation and transfer maintenance. Employees responded based on a self-report basis. Employees who attended the March 2007, September 2007 and December 2006 ELIs had already completeted the first questionnaire. The second and third questionnaires were also given to these employees building on and extending the data that had been collected.

The questionnaires were based on the transfer literature which included transfer theories, evaluation models and many research studies. The results of the study indicated that General Self-efficacy (GSE) was the most important influence on transfer intentions up to six months after ELI. Transfer intentions was a better predictor than supervisor support and GSE to significantly influence the actual initiation of skills on the job obtained from ELI at six, nine months and one year. A possible explanation could be that the presence of transfer intentions is a more powerful way of overcoming obstacles to transfer than GSE and supervisor support after six months of being back in the work environment. Once employees actually attempted to apply skills on the job, transfer intentions was a better predictor at six months for maintaining those skills overtime (transfer maintenance); however, transfer initiation was a better predictor at nine months and one year. This study adds to the discussion of the transfer of training as it relates to transfer intentions, General Self-efficacy and supervisor support. The more we (stakeholders) learn about transfer and the influences of transfer, the more that we can develop strategies or interventions to enhance the transfer process.

Glossary of terms

The following are key terms contained in this study with their definitions.

Application: The learners' practical use of new learning, networks, and resources gained from adult training programs in their work organizations and/or communities (Broad & Newstrom,1992).

Barriers to Transfer: The set of actual and perceived factors that inhibit the success of training and development efforts and act as impediments to transfer of training (Broad, 1982).

General Self-efficacy (GSE): Self-efficacy refers to beliefs in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands (Wood & Bandura, 1989).

Learning: A change in attitude, knowledge or skill (Reynolds, 1993).

Motivation to Transfer: Trainee's intended effort towards applying the knowledge and skills to the job learned in training (Huczynski & Lewis, 1980; Noe, 1986).

Perceptions: Participants' interpretations of what they sense as the degree to which a training experience or supervisor's support facilitated the readiness and application of learning (Lindsay & Norman, 1977).

Relapse Prevention: A process by which trainees are helped with developing a plan for needed support and practice overcoming difficulties in applying new knowledge and skills in an unsupportive work environment (Machin & Fogarty, 2004).

Supervisor Support: Supervisors'/managers' support and reinforcement for the use of knowledge and skills gained in training on the job (Holton & Bates, 1998).

Training: A planned learning experience designed to bring about permanent change in an individual's knowledge, attitudes, or skills (Campbell, Dunnette, Lawler, & Weick 1970).

Transfer Climate: The social-psychological work environment (peer, supervisor, and organizational support) to which the trainee will return (Mathieu & Martineau, 1997).

Training effectiveness: Participants knowledge or skill acquisition as a result of the training experience.

Transfer initiation: Attempts to apply, on the job, knowledge and skills gained in training (Laker, 1990).

Transfer Intentions: Trainees' resolution or commitment to apply some key concepts or skills that they learned during training (Reynolds, 1993).

Transfer Maintenance: The proficiency in applying, on the job, knowledge and skills gained in training over time (Laker, 1990).

Transfer of Training: The application of knowledge or skills, gained in training, to the work environment (Broad & Newstrom, 1992; Gradous, 1991; Wexley & Latham, 1981).

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APPENDICES

APPENDIX A

Transfer of Training Questionnaire (1)

For confidentiality tracking purposes only, please list the last 4 digits of your SSN#_____

TRANSFER OF TRAINING QUESTIONNAIRE (1)

The Employee Leadership Institute (ELI) is designed to identify and develop leadership skills for non-supervisory personnel who want to move into supervisory positions, or who wants to improve personal and departmental results by learning and applying effective leadership skills and techniques. In the effort to increase the transfer of training, your valuable input is necessary. Please respond to the following questions.

Part I: Please circle your response or fill in the blank for each question

1. Are you Male or Female?
A. Male
B. Female

2. What is your age? _____

3. Years of Service with xxxxxx County? _____

4. How long have you worked for your current supervisor? _____

5. What is the highest level of education you have completed?
A. High School/GED
B. Some College
C. 2-Year College Degree (Associates)
D. 4-Year College Degree (BABS)
E. Master's Degree
F. Doctoral Degree
G. Professional Degree (MD, JD)

6. What is your race?
A. African-American
B. Caucasian
C. Hispanic
D. Asian-Pacific Islander
E. Native American
F. Other_____

Part II. Based on the leadership skills that you acquired during the Employee Leadership Institute (ELI), indicate the extent to which the following reflect your experience. After reading the statement, circle the number that best represents your perspective.

With respect to ELI training…..

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. I will discuss with my supervisor ways to apply the skills that I have learned.	1	2	3	4	5
8. I will discuss with my co-workers ways to apply the skills that I have learned.	1	2	3	4	5
9. I will spend time thinking about how to apply the skills that I have learned.	1	2	3	4	5
10. I will evaluate how successfully I can apply the skills that I have learned.	1	2	3	4	5
11. I will look for opportunities to apply the skills that I have learned.	1	2	3	4	5
12. I will review course materials in order to apply the skills that I have learned.	1	2	3	4	5
13. I will practice applying the skills that I have learned.	1	2	3	4	5
14. I will set specific goals for maintaining the skills that I have learned.	1	2	3	4	5
15. I will seek expert help/advice in order to maintain the skills that I have learned.	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16. I will examine my work environment for potential barriers to using the skills that I have learned.	1	2	3	4	5
17. I will monitor my success at applying the skills that I have learned.	1	2	3	4	5
18. When I make plans, I am certain I can make them work.	1	2	3	4	5
19. One of my problems is that I cannot get down to work when I should.	1	2	3	4	5
20. If I can't do a job the first time, I keep trying until I can.	1	2	3	4	5
21. When I set important goals for myself, I rarely achieve them.	1	2	3	4	5
22. I give up on things before completing them.	1	2	3	4	5
23. I avoid facing difficulties.	1	2	3	4	5
24. If something looks too complicated, I will not even bother to try it.	1	2	3	4	5
25. When I have something unpleasant to do, I stick to it until I finish it.	1	2	3	4	5
26. When I decide to do something, I go right to work on it.	1	2	3	4	5
27. When trying to learn something new, I soon give up if I am not initially successful.	1	2	3	4	5
28. When unexpected problems occur, I don't handle them well.	1	2	3	4	5
29. I avoid trying to learn new things when they look too difficult for me.	1	2	3	4	5
30. Failure just makes me try harder.	1	2	3	4	5
31. I feel insecure about my ability to do things.	1	2	3	4	5
32. I am a self-reliant person.	1	2	3	4	5
33. I give up easily.	1	2	3	4	5
34. I do not seem capable of dealing with most problems that come up in life.	1	2	3	4	5
35. My supervisor meets with me regularly to work on problems I may be having in trying to use my training.	1	2	3	4	5
36. My supervisor meets with me to discuss ways to apply training on the job.	1	2	3	4	5
37. My supervisor shows interest in what I learn in training.	1	2	3	4	5
38. My supervisor sets goals for me which encourage me to apply my training on the job	1	2	3	4	5
40. My supervisor lets me know I am doing a good job when I use my training.	1	2	3	4	5

THANK YOUR FOR YOUR TIME!!!!

Transfer of Training Questionnaire (2)

For confidentiality tracking purposes only, please list the last 4 digits of your SSN#_____

TRANSFER OF TRAINING QUESTIONNAIRE (2)

The Employee Leadership Institute (ELI) is designed to identify and develop leadership skills for non-supervisory personnel who want to move into supervisory positions, or who wants to improve personal and departmental results by learning and applying effective leadership skills and techniques. In the effort to increase the transfer of training, your valuable input is necessary. Please respond to the following questions.

Part I. Based on the leadership skills that you acquired during the Employee Leadership Institute (ELI), indicate the extent to which the following reflect your experience. After reading the statement, circle the number that best represents your perspective.

With respect to ELI training,

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I have attempted to "model the way" by doing what I say I will do and demonstrating a personal example of what is expected in the work environment.	1	2	3	4	5
2. I have attempted to "inspire a shared vision" by having a positive outlook and painting the "big picture" of the county's' aspirations regarding customer service within my department.	1	2	3	4	5
3. I have attempted to "encourage the heart" by celebrating accomplishments and praising my co-workers for a job well done within the work environment.	1	2	3	4	5
4. I have attempted to "enable others to act" by appreciating and developing strengths in my co-workers in order to achieve my department's mission.	1	2	3	4	5
5. I have attempted to "challenge the process" by taking risks and challenging myself and co-workers to try new approaches to their daily job duties and when working on projects.	1	2	3	4	5
6. My supervisor meets with me regularly to work on problems I may be having in trying to use my training.	1	2	3	4	5
7. My supervisor meets with me to discuss ways to apply training on the job.	1	2	3	4	5
8. My supervisor shows interest in what I learn in training.	1	2	3	4	5
9. My supervisor sets goals for me which encourage me to apply my training on the job	1	2	3	4	5
10. My supervisor lets me know I am doing a good job when I use my training.	1	2	3	4	5
11. My supervisor helps me set realistic goals for job performance based on my training.	1	2	3	4	5
12. I will discuss with my supervisor ways to apply the skills that I have learned.	1	2	3	4	5
13. I will discuss with my co-workers ways to apply the skills that I have learned.	1	2	3	4	5
14. I will spend time thinking about how to apply the skills that I have learned.	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15. I will evaluate how successfully I can apply the skills that I have learned.	1	2	3	4	5
16. I will look for opportunities to apply the skills that I have learned.	1	2	3	4	5
17. I will review course materials in order to apply the skills that I have learned.	1	2	3	4	5
18. I will practice applying the skills that I have learned.	1	2	3	4	5
19. I will set specific goals for maintaining the skills that I have learned.	1	2	3	4	5
20. I will seek expert help/advice in order to maintain the skills that I have learned.	1	2	3	4	5
21. I will examine my work environment for potential barriers to using the skills that I have learned.	1	2	3	4	5
22. I will monitor my success at applying the skills that I have learned.	1	2	3	4	5
23. I have learned to use my training on the job	1	2	3	4	5
24. Maintaining my trained skills on the job is something I'm good at	1	2	3	4	5
25. I have mastered the continued use of my trained skills on the job	1	2	3	4	5
26. I am proficient at maintaining my trained skills	1	2	3	4	5
27. It is not possible for me to maintain my trained skills on the job	1	2	3	4	5

THANK YOUR FOR YOUR TIME!!!!

Transfer of Training Questionnaire (3)

For confidentiality tracking purposes only, please list the last 4 digits of your SSN#_____

TRANSFER OF TRAINING QUESTIONNAIRE (3)

The Employee Leadership Institute (ELI) is designed to identify and develop leadership skills for non-supervisory personnel who want to move into supervisory positions, or who wants to improve personal and departmental results by learning and applying effective leadership skills and techniques. In the effort to increase the transfer of training, your valuable input is necessary. Please respond to the following questions.

Part I. Based on the leadership skills that you acquired during the Employee Leadership Institute (ELI), indicate the extent to which the following reflect your experience. After reading the statement, circle the number that best represents your perspective.

With respect to ELI training,

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My supervisor meets with me regularly to work on problems I may be having in trying to use my training.	1	2	3	4	5
2. My supervisor meets with me to discuss ways to apply training on the job.	1	2	3	4	5
3. My supervisor shows interest in what I learn in training.	1	2	3	4	5
4. My supervisor sets goals for me which encourage me to apply my training on the job	1	2	3	4	5
5. My supervisor lets me know I am doing a good job when I use my training.	1	2	3	4	5
6. My supervisor helps me set realistic goals for job performance based on my training.	1	2	3	4	5
7. I have learned to use my training on the job	1	2	3	4	5
8. Maintaining my trained skills on the job is something I'm good at	1	2	3	4	5
9. I have mastered the continued use of my trained skills on the job	1	2	3	4	5
10. I am proficient at maintaining my trained skills	1	2	3	4	5
11. It is not possible for me to maintain my trained skills on the job	1	2	3	4	5
12. I will discuss with my supervisor ways to apply the skills that I have learned.	1	2	3	4	5
13. I will discuss with my co-workers ways to apply the skills that I have learned.	1	2	3	4	5
14. I will spend time thinking about how to apply the skills that I have learned.	1	2	3	4	5
15. I will evaluate how successfully I can apply the skills that I have learned.	1	2	3	4	5
16. I will look for opportunities to apply the skills that I have learned.	1	2	3	4	5
17. I will review course materials in order to apply the skills that I have learned.	1	2	3	4	5
18. I will practice applying the skills that I have learned.	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19. I will set specific goals for maintaining the skills that I have learned.	1	2	3	4	5
20. I will seek expert help/advice in order to maintain the skills that I have learned.	1	2	3	4	5
21. I will examine my work environment for potential barriers to using the skills that I have learned.	1	2	3	4	5
22. I will monitor my success at applying the skills that I have learned.	1	2	3	4	5
23. I have attempted to "model the way" by doing what I say I will do and demonstrating a personal example of what is expected in the work environment.	1	2	3	4	5
24. I have attempted to "inspire a shared vision" by having a positive outlook and painting the "big picture" of the county's' aspirations regarding customer service within my department.	1	2	3	4	5
25. I have attempted to "encourage the heart" by celebrating accomplishments and praising my co-workers for a job well done within the work environment.	1	2	3	4	5
26. I have attempted to "enable others to act" by appreciating and developing strengths in my co-workers in order to achieve my department's mission.	1	2	3	4	5
27. I have attempted to "challenge the process" by taking risks and challenging myself and co-workers to try new approaches to their daily job duties and when working on projects.	1	2	3	4	5

28. What behaviors, demonstrated by your supervisor, supported you in applying the skills you learned in ELI to your job?

29. What behaviors, demonstrated by your supervisor, discouraged you from applying the skills you learned in ELI to your job?

THANK YOUR FOR YOUR TIME!!!!

APPENDIX B

Employee Leadership Institute (ELI) Application

2007 Spring Employee

Leadership Institute

Application

. . *Stepping Up To Leadership*

Thank you for expressing an interest in xxxxxxx University's Employee Leadership Institute. This application will provide the necessary information to select participants and meet their needs. Selections will be made **based on the content of this application**.

This institute is for **non-supervisory personnel**.

Instructions:

1. *Applicant completes sections I and II.*
2. *Supervisor completes section III.*
3. *Applicant and supervisor meet to discuss, complete, and sign sections IV, V, and VI.*
4. *Supervisor informs Department Director and obtains director's signature (Section VII).*
5. *include cost center and department ID to be charged if applicant is accepted (Section VIII).*
6. *Completed, signed application must be received by xxxxxxxx University no later than 5:00 p.m., March 31st, 2007. Acceptance letters will be sent on or before April 8th, 2007*

Section I: Applicant Information

Applicant Name_____

Department Name_____ Years with xxxxxxxx County _____

Phone number _____ I am an (Circle one) **INTROVERT** **EXTROVERT**

Supervisor's Name _____ Title_____
Phone number _____ Have you previously applied to attend ELI? Yes No

Section II: Applicant's Objectives Describe why you would like to (and why you feel you should be considered to) participate in this Leadership Institute. Use your own words and be specific:

Section III: Supervisor's Objectives (Used for measuring impact of training):

What would you like your employee to do that he/she does not currently have the skill or training to do?

What would you like him/her to gain from this Institute experience?

Section IV: Performance Assessment

Which specific areas of leadership do you most want to develop or improve? What is your assessment of your current leadership skill level in this area? What is your supervisor's assessment of your leadership skill level in this area?

Use this scale: *1 - new skill, 2 - developing skill, 3 - need updated skills.*

Areas of Development	Applicant' s Assessment	Supervisor's Assessment	Comments

Section V: Transfer of Training

What will you do, as supervisor and as participant, to help implement ideas and skills from this workshop?

Supervisor:

Participant:

Section VI: Signatures of Commitment

I will commit to actively involve myself in the Leadership Institute and to apply the new skills and ideas to my work.

Applicant's signature_____

I will meet with my employee to help prepare him/her for the Institute. Following each session, we will work together to incorporate the new skills and ideas into his or her performance.

Supervisor's signature_____

Section VII: Signature of Department Director: _____

Department Director

Section VIII: Cost Center and Department ID: _____

Cost Center/Department ID

Please indicate the Cost Center and Department ID to be charged if this individual is selected to attend the institute. Departments will be charged $75 per participant through Inter-Departmental Transfer after the participants are selected.

APPENDIX C

Rationale for Transferable Skills

This appendix describes the leadership behavior selection process.

LEADRSHIP BEHAVIORS FOR ELI

STEP ONE: The five leadership practices identified by Kouzes and Posner

- Model the way
- Inspire a shared vision
- Challenge the process
- Enable others to act
- Encourage the heart

STEP TWO: List of leadership behaviors**. Total is 45.**

Live Values
Lead by example
Confident
Develop a plan
Goal setting
Use SMART goals
State clear goals
Aware of Own behavior
Value interdependency
Positive outlook
Share knowledge
Celebrate accomplishments
Eval. solution to a plan
Respect Different view points
Consult w/others effectively
Team player
Influencer
Trust worthy
Take ownership
Adaptive to employee's needs
Build trust
Link work goals to organization goals
Decision maker
Learn from own mistakes
Risk taker
Open to change
Flexibility
Face problematic issues
Identify conflicts
Creativity
Define problems
Analyze problems
Identify solutions
Identify conflicts
Productive communication
Develop vision statement
Respect others time
Understand personality differences
Understand differences between people
Constructive communication
Receive information
View world differently
Appreciate/value strengths in others
Apply knowledge of MBTI
Effective communication

LEADRSHIP BEHAVIORS FOR ELI

STEP THREE: Leadership behaviors are grouped by the five leadership practices.

Model the Way	Inspire a shared vision	Challenge the process	Enable others to Act	Encourage the Heart
Live Values	Positive outlook	Learn from own mistakes	Respect Different view points	Cheer Leader
Lead by example	Share knowledge	Risk taker	Consults w/others effectively	Celebrate accomplishments
Develop a plan	Link work goals to organization goals	Open to change	Team player	
Goal setting	Develop a vision	Flexibility	Influencer	
Use SMART goals		Face problematic issues	Trust worthy	
State clear goals		Identify conflicts	Take ownership	
Aware of Own behavior		Creativity	Adaptive to employee's needs	
		Define problems	Build trust	
		Analyze problems	Unproductive communication	
		Identify solutions	Respect others time	
		Identify conflicts	Understand personality differences	
		Eval. solution to a plan	Understand differences between people	
			Constructive communication	
			Receive information	
			View world differently	
			Appreciate/value strengths in others	
			Apply knowledge of MBTI	
			Effective communication	
			Decision making	
			Confident	
			Value interdependency	

LEADRSHIP BEHAVIORS FOR ELI

STEP FOUR: Combined similar behaviors and eliminated duplicate leadership behaviors within the five leadership practices.

Model the Way	Inspire a shared vision	Challenge the process	Enable others to Act	Encourage the Heart
Lead by example • Live Values • Aware of Own behavior	**Positive outlook** Link work goals to organization goals	**Learn from own mistakes** Eval. solution to a plan	**Respect Different view points** • Understand personality differences • Understand differences between people Constructive communication • View world differently • Apply knowledge of MBTI • Decision making	**Celebrate accomplishments**
Develop a plan • Goal setting • Use SMART goals • State clear goals	**Share knowledge** Develop vision statement	**Risk taker** • Define problems • Analyze problems • Identify solutions • Identify conflicts	**Consult w/others effectively** • Unproductive communication • Respect others time • Receive information • Effective communication	
		Open to change Flexibility	**Appreciate/value strengths in others** • Team player • Adaptive to employee's needs • Value interdependency	
		Face problematic issues	**Influencer** • Confident • Build trust • Trust worthy	
		Creativity	**Take ownership**	

LEADRSHIP BEHAVIORS FOR ELI

STEP FIVE: List of the TOP 15 leadership behaviors

Model the Way	Inspire a shared vision	Challenge the process	Enable others to Act	Encourage the Heart
Lead by Example	Positive outlook	Learn from own mistakes	Respect Different view points	Celebrate accomplishments
Values				
Develop a plan	Share knowledge	Risk taker	Consults w/others effectively	
		Open to change	Appreciate/value strengths in others	
		Face problematic issues	Influencer	
		Creativity	Take ownership	

STEP SIX: Leadership practices supported by leadership behaviors

Leadership Practice	Leadership Behavior
Model the way	Lead by example
Inspire a shared vision	Positive outlook
Challenge the process	Risk Taker
Enable others to act	Appreciating and developing strengths
Encourage the heart	Celebrating accomplishments

NOTE: The Three ELI facilitators reviewed the initial list of 45 leadership behaviors and reduced it to 5 leadership behaviors.

APPENDIX D

Consent to Participate in Research Form

BLANK SAMPLE

Transfer Initiation and Maintenance: Employees' Perception of the Relative Influences of Transfer Intentions, General Self-efficacy and Supervisor Support.

Submitted by: Jimmy L. Powell
Ph.D. Candidate/ Adult Learning and Human Resource Development
Northern Virginia Center
Virginia Polytechnic Institute and State University

Dr Linda E. Morris, Chairperson

Request for Exemption of Research Involving Human Subjects (Form-Request for Exempt Review)

I. Justification for the Project/Purpose of the Study

II. Significance of Project

III. Procedure

IV. Risks

V. Benefits

VI. Confidentiality/Anonymity

VII. Individual Consent

VIII. Freedom to Withdraw

VIII. Subject's Responsibilities

Accept	Signature_____

Decline	Signature_____

X. Subject's Permission

I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

_____Date_____

Subject signature

_____ Date _____
Witness (Optional except for certain classes of subjects)

Should I have any pertinent questions about this research or its conduct, and research subjects' rights, and whom to contact in the event of a research-related injury to the subject, I may contact:

____Jimmy L. Powell _____ ____	_____
Investigator(s)	Telephone/e-mail
___ Linda E. Morris _____ ____	_____
Investigator(s)	Telephone/e-mail
_____	_____
Departmental Reviewer/Department Head	Telephone/e-mail

David M. Moore	540-231-4991/moored@vt.edu
Chair, Virginia Tech Institutional Review Board for the Protection of Human Subjects Office of Research Compliance – CVM Phase II (0442) Research Division	Telephone/e-mail

This Informed Consent is valid from _____ to _____.

[NOTE: Subjects must be given a complete copy (or duplicate original) of the signed Informed Consent.]

APPENDIX E

Written Permission

Baldwin and Ford Model

FW: "Permission for use"

Sent By: **"Lina - Oxford Kopicaite" <lkopicai@wiley.com>** **On:**Jan 01/21/09 6:33 AM

On Behalf Of: "Permission Requests - UK" <permreq@wiley.com>

To: Powells

journal perm sheet.xls (27.2 KB, download)

Dear Jimmy Powell,

Thank you for your email request. Permission is granted for you to use the material below for your thesis/dissertation subject to the usual acknowledgements and on the understanding that you will reapply for permission if you wish to distribute or publish your thesis/dissertation commercially.

Best wishes,

Lina Kopicaite

Permissions Assistant

Wiley-Blackwell

9600 Garsington Road

Oxford OX4 2DQ

UK

From: tejneaz@comcast.net [mailto:tejneaz@comcast.net]
Sent: 21 January 2009 00:26
To: Kopicaite, Lina - Oxford
Subject: Fwd: "Permission for use"

Dear Ms. Kopicaite,

I am in the process of submitting my final dissertation draft by Jan. 26 to my dissertation committee and I am waiting on the permission to use a figure from your publication. I initially wrote to you on December 5 and a few days ago I replied to your email by completing the form, is it possible to receive a response before Jan. 26 so that I can use the figure and include the approval in my document? Thank you for your time.

RE: "Transfer of Training Model"

Sent By: "Kevin Ford" <fordjk@msu.edu> **On:** Jan 01/04/08 10:15 AM

To: Powells

I do not think Tim or I have a problem with that – but you most likely need to ask Personnel Psychology for permission to reproduce that table. Let us know what you are working on – we are currently working on an update to the transfer review!

Kevin

Dr. J. Kevin Ford, Ph.D.

Department of Psychology

315 Psychology Building

Michigan State University

E. Lansing, MI 48824

517-353-5006

From: tejneaz@comcast.net [mailto:tejneaz@comcast.net]
Sent: Friday, January 04, 2008 9:52 AM
To: baldwint@indiana.edu; Fordjk@msu.edu
Subject: "Transfer of Training Model"

Dr. Baldwin & Dr. Ford,

My name is Jimmy Powell and I am a doctoral candidate with a research interest in the field of training transfer, during a literature review, I read your 1988 article on transfer of training. I am asking your permission to use the illustration of your transfer model in chapter 2 of my manuscript. I look forward to hearing from you soon and thank you for your time and attention.

Jimmy

Thayer and Teachout's Model

Re: "Training Transfer Model"

Sent By: "Paul W. Thayer" <pthayer001@nc.rr.com> On: Jan 01/04/08 9:47 AM
To: Powells

Jimmy: You have my permission, and I wish you success with your research.

>Dr. Thayer,
>
>My name is Jimmy Powell and I am a doctoral candidate at Virginia
>Tech. I am doing research on transfer and during a literature
>review, I read your work "A Climate for Transfer Model". I am asking
>your permission to use the illustration of your training transfer
>model in chapter 2 of my manusript. I look forward to hearing from
>you soon and thanks for your time.

Jimmy

Paul W. Thayer, Ph.D.
Professor Emeritus of Psychology
North Carolina State University
117 Duncansby Court
Cary, NC 27511

Holton's Factors Affecting Transfer of Training

Re: "Transfer of Training Model"

Sent By: "Ed Holton" <eholton@cox.net> On: Jan 01/04/08 5:24 PM
To: Powells
Reply to: eholton@cox.net

You have my permission. Good luck
-----Original Message-----
From: tejneaz@comcast.net

Date: Fri, 04 Jan 2008 15:28:42
To:eholton2@lsu.edu
Subject: "Transfer of Training Model"

Dr. Holton,

My name is Jimmy Powell and I am a doctoral candidate with a research interest in the field of training transfer, during a literature review, I read about your 1996 transfer model, " Holton's Factors Affecting Transfer of Training. I am asking your permission to use the illustration of your transfer model in chapter 2 of my manuscript. I look forward to hearing from you soon and thank you for your time and attention.

Jimmy