LEARNING TRANSFER: A STUDY OF PEER SUPPORT AND INDIVIDUAL PERFORMANCE IN A SOUTH AMERICAN WORK CULTURE

by

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A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Capella University

October 2015

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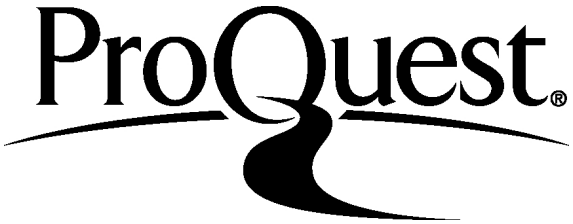

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Abstract

Learning transfer is a matter of concern for training and performance specialists; it is a phenomenon that can be analyzed through the application of the Learning Transfer System Inventory (LTSI) developed by Holton and Bates in 2011. The objective of this correlational study was to identify the relationship between peer support and individual sales among a group of sales professionals who attended a sales training program in a Latin American work culture. The findings of this study indicated that there is a positive, moderate, and significant relationship between peer support and individual sales. Also, the participants of this study perceived that peer support was significant for learning transfer. Moreover, the mean score of peer support obtained in this study was higher than results obtained in previous research, which indicated that this environmental variable is more significant in collectivist than in individualistic contexts. This study attempted to present an objective analysis between learning transfer and individual performance in a Latin American work context. Learning transfer researchers and practitioners could benefit from understanding the variables that promote learning transfer and individual performance in a Latin American work culture. Recommendations for future research regarding the application of the LTSI using larger samples, the analysis of other variables that influence learning transfer and individual sales, the variables and activities that affect and promote peer support, and the understanding of cultural dimensions, especially in different cultural contexts and real organizational settings, are suggested.

Dedication

This dissertation is dedicated to my beloved children, who have shared my doctoral journey with their contagious youth, love, determination, and patience. Pedro and Mayo, remember that the true joys and fulfillment of dreams are born of the effort. To my generous dad, Vicente, who has supported me from my heart and through the most beautiful memories.

Acknowledgments

I want to thank all the people who have supported me in several ways. Thanks Dr. Hardt, my mentor and committee chair for your guidance and feedback. Thanks Dr. Robinson and Dr. Minchella, committee members, for your support. Thanks Dr. Bates for clarifying my doubts. Thanks to my beautiful mom Nori, for listening about the accomplishments and hard moments I experienced during this journey. Thanks to my dear brother Eddie, for your motivation and encouragement all the time. I want to give a special thanks to my husband Andy, who understood, respected, and supported my professional dream. Thank you my love for being present, even when we were alone. Thanks to my workplace and my team for giving me the opportunity to work with freedom, and improve my personal growth.

Table of Contents

Acknowledgments iv

List of Tables viii

List of Figures ix

CHAPTER 1. INTRODUCTION 1

Introduction to the Problem 1

Context, Background, and Theoretical Frameworks 2

Statement of the Problem 10

Purpose of the Study 12

Research Hypotheses 12

Rationale, Relevance, and Significance 13

Nature of the Study 16

Definition of Terms 17

Assumptions, Limitations, and Delimitations 23

Organization of the Remainder of the Study 24

CHAPTER 2. LITERATURE REVIEW 25

Introduction to the Literature Review 25

Learning Transfer 26

Learning Transfer Research 37

Learning Transfer and Peer Support 43

Cultural Dimensions 51

Sales Performance 60

Chapter 2 Summary 64

CHAPTER 3. METHODOLOGY 66
Introduction to Chapter 3 66
Purpose of the Study 66
Research Hypothesis 67
Research Design 67
Target Population, Sampling Method, and Related Procedures 69
Instrumentation 74
Data Collection 77
Data Analysis Procedures 79
Limitations of the Research Design 81
Internal Validity 82
External Validity 83
Expected Findings 83
Ethical Issues 84
Chapter 3 Summary 85
CHAPTER 4. DATA ANALYSIS AND RESULTS 87
Introduction 87
Description of the Sample 88
Summary of the Results 89
Detailed Analysis 89
Chapter 4 Summary 92
CHAPTER 5. CONCLUSIONS AND DISCUSSION 94
Introduction 94

Summary of the Results 95

Discussion of the Results 96

Discussion of the Results in Relation to the Literature 98

Limitations 105

Implication of the Results for Practice 107

Recommendations for Further Research 108

Conclusion 110

REFERENCES 111

APPENDIX A. STATEMENT OF ORIGINAL WORK 123

APPENDIX B. DEFINITIONS OF LEARNING TRANSFER VARIABLES 125

List of Tables

Table 1. Comparison of Input Variables Affecting Learning Transfer 33

Table 2. Summary of Hofstede's Cultural Dimensions 52

Table 3. Scales and Factors of the Learning Transfer Systems Inventory 76

Table 4. Participants' Demographics 88

Table 5. Descriptive Statistics 90

Table 6. Pearson's Correlation Between Peer Support and Individual Sales 91

Table 7. Spearman's Correlation Between Peer Support and Individual Sales 92

List of Figures

Figure 1. Effects of the learning transfer process 32

Figure 2. Learning transfer system conceptual model: Learning transfer framework being tested 35

Figure 3. Correlation of variables 90

CHAPTER 1. INTRODUCTION

Introduction to the Problem

According to the last report of income inequality from the International Monetary Fund (Tsounta & Osueke, 2014), Latin America is one of the regions with the highest levels of inequality in the world. The report indicated that high quality education is a factor that can reduce inequality and poverty. For instance, during the last decade, increased spending on education in Latin America has positively influenced the levels of inequality. However, the number of years of schooling for people in this region remains in a low range, between five and eight-and-one-half years, and around three-fourths of the population are low skilled (Tsounta & Osueke, 2014). Lara (2013) confirmed this statement by indicating that Latin American organizations hire employees who present with a lack of competencies that need to be improved. For that reason, the quality of education is a key factor in reducing inequality, addressing poverty, and improving competitiveness and productivity (Rojas Castro, 2015). Therefore, understanding and improving factors affecting the quality of education is a key challenge for Latin American performance specialists.

In a similar manner, learning transfer is a matter of concern for organizational performance. Miller (2013) indicated, "organizations spent approximately $164.2 billion on employee training" (p. 7), though the exact amount of learning transfer cannot be accurately determined and is a matter of concern among organizations (Holton, Bates, &

Ruona, 2000; Khasawneh, Bates, & Holton, 2006). For example, Ecuador has increased its spending in education (Tsounta & Osueke, 2014) and presents a high demand for training programs (Vinueza, 2007). Nevertheless, there are concerns that limit educational levels and the quality of human talent. For example, talent retention is still a challenge (Sanchez-Arias, Calmeyn, Driesen, & Pruis, 2013), low levels of knowledge and skills are common (Lara, 2013), and practical initiatives supporting the application of competencies into workplaces are insufficient (Comisión Económica para América Latina y el Caribe [CEPAL], 2004; Escuela de Empresas, 2014). For that reason, Latin American organizations need to improve learning initiatives supporting learning transfer and talent retention.

In particular, organizations should focus on evaluation and improvement of learning transfer in order to enhance organizational performance (Kirwan & Birchal, 2006; Li & Abel, 2011; Pershing, Lee, & Cheng, 2008; Villachica & Stepich, 2010) and to increase the rate of return on investment in training (Kirwan & Birchal, 2006). The research question of this study was as follows: To what extent is there a relationship between participants' peer support and performance on individual sales in a South American work culture? This question aligned with the necessity of knowing how the variable of an environmental learning transfer (peer support) can affect an objective indicator of performance (individual sales) in a developing country that needs to improve both education and practical results.

Context, Background, and Theoretical Frameworks

This section presents the context of the research problem, the background, and a summary of the theoretical framework. The context summarizes the training and

performance needs in Latin America and explains how training and learning transfer occur in Ecuador. The background includes an overview of learning transfer, while the theoretical foundation summarizes the learning transfer framework and the theoretical foundations that guided this study.

Context

According to Sanchez-Arias et al. (2013), Latin America needs training and development programs adapted to their cultural, operational, and generational realities. Sanchez-Arias et al. summarized key suggestions of top executives from Latin America and indicated that the region needs the integration of potential trainees and business and sales executives when designing programs, the alignment between training and strategic objectives, the improvement of work environment to support learning transfer, and the implementation of knowledge management systems to preserve organizational learning. In summary, these strategies imply that training and performance initiatives in Latin American require managerial commitment and an adequate work environment to create programs adapted to their realities.

Additionally, according to the Public Institution for Professional Training in Ecuador (called Secretaría Técnica de Capacitación y Formación Profesional [SETEC]), the productivity of the country is directly related to the level of training of human talent. Nevertheless, the lack of academic background and insufficient training to improve job competencies have negatively affected employment levels (SETEC, 2012). For that reason, the national plan for training and professional development was developed and promoted in the year 2012 as a relevant strategy of the Ecuadorian government.

The national plan for training was justified by the phenomenon of globalization

and the necessity of reducing problems of implementation, scope, benefits, and levels of satisfaction with training programs. The plan included policies such as (a) strengthening the capacities of public and private training organizations, (b) encouraging and innovating in training focused on the needs of the productive sector, (c) promoting continuous and high quality training programs, and (d) encouraging training initiatives focused on the employability levels. Also, the increasing demand for training in Ecuadorian productive sectors requires programs that support the transfer of learning (CEPAL, 2004; Escuela de Empresas, 2014; Vinueza, 2007). In addition, the private sector of training and performance improvement has developed relevant projects with private Ecuadorian companies, resulting in practical experiences and training initiatives focused on the continuous improvement of learning as well as individual and organizational development (Escuela de Empresas, 2014). Regarding the transfer of learning, though the public sector does not apply evaluation initiatives to measure learning transfer (SETEC, 2015), corporate training organizations are focused on identifying the factors that support or limit the application of learning into workplaces (Escuela de Empresas, 2014).

This study was performed in Ecuador, a South American country that presents one of the highest levels of collectivism. That is, Ecuadorians highly value group cohesion, cooperation, and solidarity (Hofstede, 1984; Ogliastri et al., 1999). Therefore, training initiatives supporting collaboration and group activities might affect the effectiveness of training and performance in Ecuador. Consequently, the application of the Learning Transfer Systems Inventory (LTSI) will benefit corporate training organizations, performance researchers, and performance specialists by determining how

initiatives that incorporate peer support can affect the effectiveness of training and performance programs.

Background

From a training and performance perspective, learning transfer can affect individual and organizational performance. Oliver (2009) indicated that transfer is "a mechanism for getting knowledge in the form of learning, research discoveries, technology, or policy to a point where it can be used" (p. 64), while Pershing et al. (2008) believed that learning transfer is a key strategy for organizational development. Clearly, the definition of learning transfer implies the application of gained competencies such as knowledge, skills, attitudes, and behaviors into workplaces (Hawley & Barnard, 2005; Holton et al., 2000) with the aim of improving job and organizational performance (Leimbach, 2010). As a result, the evaluation of learning transfer should be aligned with performance outcomes beyond learning outcomes. However, research indicates that training investments does not impact an adequate level of performance and suggests that only 15% to 20% result in organizational performance (Leimbach, 2010). Although several studies have tried to explain learning transfer based on a recognized framework called the learning transfer system (Holton et al., 2000) and the application of a quantitative instrument called the Learning Transfer Systems Inventory (LTSI), particularly in North American work settings, more research is suggested.

Theoretical Framework

The Human Performance Technology (HPT) model proposed by Van Tiem, Moseley and Dessinger (2012) is a systematic approach that consists of different performance phases: performance and cause analysis; selection, design and development

of performance improvement initiatives; implementation of initiatives and change management; and evaluation of results. The HPT model addresses learning transfer in three phases: the intervention design and selection phase, the implementation phase, and the evaluation phase. In the design and selection phase, the design of a training-focused performance improvement initiative should include variables that support the successful application of competences into the workplace. This study will offer new insights into how these design elements might be created in the context of a Latin American work setting. Also, this study will offer insights into how to implement the design elements that are supposed to encourage the successful transfer of learning. Finally, regarding the evaluation phase, this study will determine the job transfer and effectiveness of a training and performance initiative. Therefore, the results of this study will suggest specific interventions that could be successful in implementing training programs in Latin American work contexts.

The learning transfer framework that guided this study was the learning transfer system (LTS; Holton et al., 2000). Also, this study was supported by the theoretical foundation called "three-legged stool" (Swanson, 1995, p. 207) which consists of economic, systems, and psychological theories. These theories align with human resource research and practice and are essential for the training and performance improvement field. According to Swanson (1995), "Human resource development is a process of developing and/or unleashing human expertise through organization development and personnel training and development for the purpose of improving performance" (p. 208). Swanson (2009) also indicated,

Economic theory is recognized as a primary driver and survival metric of

> organizations; systems theory recognizes purpose, pieces, and relationships that can maximize or strangle systems and subsystems; and psychological theory acknowledges human beings as brokers of productivity and renewal along with the cultural and behavioral nuances. (p. 1,387)

In addition, these theories share three ethical beliefs: human expertise is necessary to achieve the goals of organizational systems, human resources should support the integrity of the whole organizational system, and the human resource development process can develop human expertise by benefiting individuals and organizations (Swanson, 2009). For this hypothetical study, the disciplines that supported the learning transfer framework were (a) human capital theory (Swanson, 2001), (b) systems model of performance improvement in organizations (Swanson, 2005), and (c) learning transfer system (Holton et al., 2000).

Human Capital Theory

The human capital theory proposes the development of human capital based on profitability principles. Torraco (2009) indicated that economic considerations have a central role in the theoretical foundation of human resource development, and Swanson (2009) emphasized this idea by stating that human resource initiatives should contribute to the profitability of organizations. Human capital is the expertise accumulated from training and education (Torraco, 2009), while the human capital theory is an economic proposition that focuses on human development and promotes the return on investment (Swanson & Holton, 2009). According to Torraco (2009), education and training may increase learning and productivity, and consequently, affect business earnings and social efficacy. Moreover, according to Nafukho, Hairston, and Brooks (2004):

> The main outcome from investment in people is the change that is manifested at the individual level in the form of improved performance, and at the organizational level in the form of improved productivity and profitability or at societal level in the form of returns that benefit the entire society. (p. 549)

For that reason, learning capabilities are investments that can support people's productivity and present a comparable value to other organizational resources required to produce a good or service (Nafukho et al., 2004). By implementing initiatives that support individual performance and promote the improvement of economic results, both the individual and the organization could benefit from training and performance experiences. This study attempted to understand how training and performance activities that include peer support could justify the return on investment. This study focused on the experiences of a sales training program whose objective was the improvement of sales competencies to support learning and individual sales, and consequently exert a potential impact on the organizational profitability.

Systems Model of Performance Improvement

Organizations are systems that include components such as learning transfer and performance. According to Ruona (2009), a system is a "collection of elements where the performance of the whole is affected by every one of the parts and the way that any part affects the whole depends on what at least one part is doing" (p. 117). It means that the analysis of interactions is essential to determine the effectiveness of training and performance initiatives. The systems model of performance improvement in organizations (Swanson, 2005) consists of the analysis of inputs, performance improvement processes (analysis, design, implementation, and evaluation phases),

outputs, and the environment. Swanson indicated that environment can affect objectives, structure, and organizational resources, can contribute to the core business, and is useful to evaluate changing, challenging, or new learning and performance initiatives. For example, Swanson and Dobbs (2006) indicated that systemic training "is systemically connected to the organization hosting the training, the processes within that system, the jobs, and the individual contributors experiencing the training" (p. 549). Also, Blume, Ford, Baldwin, and Huang (2010) indicated that learning transfer occurs when training and performance initiatives are aligned with processes.

For that reason, Swanson (2005) suggested that researchers focus on organizational systems and outcomes and analyze results from different perspectives, such as performance at systems or financial levels, individual satisfaction, and learning. In other words, the systems theory entails that by understanding the system's components and their relationships, individuals and organizations can better understand the strengths and limitations of learning transfer systems. Consequently, this study focused on an environmental factor, peer support, which affects learning transfer and potentially affects a performance indicator, individual sales. This study aimed to understand how an environmental factor of the transfer process affects learning transfer and individual performance as outputs of a system. This study also supported the idea of focusing on the organizational system and analyzing the environment as a key factor affecting learning transfer and performance.

Learning Transfer System (LTS)

With the systemic perspective in mind, the learning transfer system (LTS; Holton et al., 2000) also implied psychological aspects that support the transfer of learning.

First, although the LTS does not explain a process of performance, this model implies a systemic view that describes the factors of work systems (inputs) affecting learning transfer on different levels of performance (outputs). Second, the LTS is a learning transfer framework that presents psychological and learning aspects that support training, transfer, and performance. For instance, the psychological aspects support the importance of cultural and behavioral characteristics of learners and how they influence organizational development (Swanson, 2009). Holton et al. (2000) confirmed this idea by indicating that trainees' characteristics that affect learning transfer include psychological and learning factors, while Gilbert (2007) argued that performance is affected by individual behaviors depending on skills, knowledge, capacity, and motivation. That is, individual behaviors are key factors affecting learning experiences.

Moreover, learning can affect individual growth. According to the LTS model, learning can directly affect individual performance. At the same time, individual performance can be affected by behavioral characteristics of learners, such as learner readiness, motivation to transfer, transfer effort, feedback, support, and openness to change. For this study, participants accomplished training objectives that included peer support activities, and depending on their learning experiences and traits, allowed them to accomplish learning objectives and potentially improve individual performance. For that reason, this study is useful to understand how individual learning and trainees' behaviors can affect training and performance activities involving peer support.

Statement of the Problem

The amount of competencies transferred into workplaces is a matter of concern and continues to be an opportunity for improvement among organizations (Holton et al.,

2000; Khasawneh et al., 2006). Faced with the growing demand for training (Vinueza, 2007) and practical solutions that support the application of competencies (CEPAL, 2004) in Ecuador, a country with one of the highest levels of collectivism (Hofstede, 1984), training providers implement methodologies focused on improving learning and individual performance through training programs that include workgroup activities during and after classes (Escuela de Empresas, 2014). Although it is imperative to develop strategies to improve training and performance programs, it is also important to determine what environmental factors affect learning transfer and performance in the Ecuadorian context.

Previous literature has suggested conducting studies of learning transfer affecting performance (Holton, Bates, Bookter, & Yamkovenko, 2007), peer support affecting transfer (Burke & Hutchins, 2008; Chiaburu & Marinova, 2005; Cromwell & Kolb, 2004; Holton et al., 2000; Holton, Bates, Seyler, & Carvalho, 1997; Holton, Chen, & Naquin, 2003; Kirwan & Birchall, 2006; Martin, 2010; Moreno, Quesada, & Pineda, 2010; Pidd, 2004), and conducting learning transfer studies in different contexts (Holton et al., 2007; Martin, 2010). In addition, Rogers and Spitzmueller (2009) concluded that collectivist people exhibit high intentions to transfer learning, while Chen, Holton, and Bates (2006) concluded that work environment factors (e.g., peer support) could be critical for learning transfer in collectivist cultures. It would be useful to corporate training organizations to know if training and performance programs implying peer support affect individual performance because this entails several implications.

First, corporate training organizations, performance specialists, and researchers can understand how the LTSI works in Latin American work settings; second, they can

determine if the LTSI is a valid way to assess learning transfer climate. Finally, they can estimate how a salient cultural dimension of Latin America, collectivism, influences the dynamics of a key human resource development concept, learning transfer. Despite previous studies confirming the validation of the LTSI, research about environmental factors affecting performance has not been conducted in Ecuador (R. Bates, personal communication, February 16, 2014). Therefore, more knowledge is needed regarding the relationship of peer support as described in the LTSI (Holton, 2005) and individual performance in a South American work culture.

Purpose of the Study

The purpose of this quantitative study was to explore the relationship between peer support as described in the LTSI (Holton, 2005) and individual performance in a South American work culture. By exploring this relationship, a deeper understanding of the role of peer relationships can be gained, as well as new insights about how national culture can affect an important performance improvement phenomenon: learning transfer. These benefits can be translated into better interventions for HPT practitioners.

Research Hypotheses

The research question of this study was as follows: To what extent is there a relationship between participants' peer support and performance on individual sales in a South American work culture? The research hypotheses for this study were

H_1: There is a relationship between peer support and performance in individual sales among a group of sales consultants who participated in a training program in a South American work culture.

$H_Ø$: There is no relationship between peer support and performance in individual

sales among a group of sales consultants who participated in a training program in a South American work culture.

Rationale, Relevance, and Significance

The rationale and relevance sections summarize the need for this study based on learning transfer findings, the importance of training and performance improvement specialization, and training necessities in Ecuador. The significance section explains how this study can be useful to add to existing knowledge about learning transfer and performance.

Rationale

Understanding the factors that are related to learning transfer and supporting evaluation activities are key strategies of organizational development (Villachica & Stepich, 2010). Chen et al. (2006) indicated that transfer systems can vary depending on organizational cultures and concluded that work environment factors (e.g., peer support) can be critical for learning transfer in collectivist cultures, while Rogers and Spitzmueller (2009) concluded that collectivist people exhibit high intentions to transfer learning. Although studies have confirmed the relationships between peer support and learning transfer, a high percentage of studies were conducted in the United States where cultural dimensions differ from the collectivist characteristics of South American cultures.

The Ecuadorian culture presents the second highest level of collectivism among 50 countries, which means that belonging to a group, respecting group norms, and collaboration among peers are salient characteristics of the work culture (Hofstede Centre, n.d.). The influence of peer support on learning transfer might be stronger in a collectivist than in an individualist culture. Nevertheless, previous studies have not

confirmed the level of significance of peer support in the South American work culture (R. Bates, personal communication, February 16, 2014). In addition, corporate training organizations in Ecuador are beginning to demand training and performance improvement programs that include practical activities to promote the application of training into workplaces (CEPAL, 2004; Escuela de Empresas, 2014). This study attempted to help fulfill the necessity of improving training and performance in cultures with high levels of collectivism such as Ecuador, Guatemala, Brazil, Mexico, Portugal, Hong Kong, Colombia, Perú, Singapore, Taiwan, Turkey, and Greece.

Relevance

Learning and performance initiatives focused on business results are key trends for organizations (Rothwell, Hohne, & King, 2007) and present an increasing demand around the world (Patel, 2010; Rothwell et al., 2007). Learning transfer is a relevant concern in the field of training and human performance improvement because it supports the building of intellectual capital in organizations (Holton et al., 2000). Also, the analysis of best practices for training transferred to jobs is critical for human performance researchers and practitioners (Burke & Hutchins, 2008; Chiaburu & Marinova, 2005). Kirwan and Birchal (2006) emphasized this idea by indicating, "By increasing the amount of transfer, organizations can improve the rate of return on resources spent on training and development" (p. 266). This study contributed to the specialization of training and performance improvement for several reasons.

Training and performance organizations and companies interested in promoting learning transfer can use findings from the LTSI to understand the factors that potentially can affect learning as well as individual and organizational performance. The findings of

this study can be useful to implement appropriate strategies or adapt global initiatives to local training and performance programs. Training and performance practitioners can promote or reduce activities implying peer support (such as workgroup initiatives) when designing and implementing training programs in the Ecuadorian work culture. Additionally, Latin American corporate training organizations can benefit from knowing if training and performance programs that require peer support influence learning transfer, and individual performance.

Significance

The identification of key factors that enhance or inhibit transfer of training to job application is a valuable research topic (Huglin, Johnsen, & Marker, 2007) and implies the need for more research regarding evaluation and transfer of training initiatives (Pershing et al., 2008). The analysis of best practices for training transferred to jobs is critical for human performance researchers (Burke & Hutchins, 2008; Chiaburu & Marinova, 2005). For example, investigations of learning transfer can support the understanding of the relationship between learning and performance (Holton, 2002). This study contributes to the research on learning transfer in a Latin American work environment for several reasons.

Testing the LTSI in a context that differs from the North American culture provides valuable information for training and performance researchers. The identification of the degree of the relationship of peer support affecting learning transfer and individual performance of this study tests the LTSI and collects valuable information regarding other LTSI variables for future research. The study presents the level of relationship between a learning transfer variable and an individual performance

indicator—individual sales—as an objective way to identify the link between transfer and organizational results. Consequently, this study advances the scientific knowledge base of training and performance improvement field in a South American work culture.

Nature of the Study

This correlational non-experimental research identified the relationship between two variables, peer support, and individual sales. In general, correlational non-experimental quantitative research "seeks to determine the degree of relationship between two or more variables" (Lodico, Spaulding, & Voegtle, 1010, p. 32). Fraenkel, Wallen, and Hyun (2012) emphasized this definition by indicating that the purpose of correlational research is to describe relationships among variables after the application of a survey to a single group of participants. Ravid (2011) added that the procedure requires the use of a correlation coefficient, while George and Mallery (2012) indicated that the correlation coefficient defines the degree and direction of the correlation, positive or negative. This study used the Pearson's correlation coefficient to identify the level of relationship between variables (George & Mallery, 2012; Leedy & Ormrod, 2013).

For data collection, a group of 84 workers from a multinational company (who attended a sales training program) provided data for analysis of peer support (the independent variable) and individual performance (the dependent variable). The methods to collect data were a survey for the independent variable and archival records for the dependent variable. Peer support is a scale of the LTSI (Holton, 2005) that is measured as a mean of the corresponding questions aligned with peer support. For this variable, the study included the application of the LTSI. Individual sales are a tangible indicator that describes the amount of units sold by an individual in a month. For this variable, data

was collected from existent documentation of the company.

Definition of Terms

Collectivism

According to Hofstede (1984), *collectivism* is a factor of cultural systems that can affect behavior, especially in work situations. Collectivism refers to the level of interdependence that individuals maintain among themselves in a society, and it is defined as "a preference for a tightly knit social framework in which individuals can expect their relatives, clan, or other in-group to look after them in exchange for unquestioning loyalty" (p. 83).

Correlational Coefficient

According to Ravid (2011), *correlation coefficient* is "an index indicating the degree of association or relationship between two variables. The coefficient can range from -1.00 (perfect negative) to +1.00 (perfect positive)" (p. 237), though perfect correlations are not found in social sciences (George & Mallery, 2012).

Correlational Research

According to Creswell (2012), *correlational research* is used to identify the relationship between variables by applying statistical procedures. Rumrill (2004) indicated that correlation "is a statistic that characterizes the nature and magnitude of the relationship between two quantitatively coded variables" (p. 255). In correlational research, variables are usually continuous, and the magnitude of the relationship of the hypothetical association between variables is expressed through the correlation coefficient (Rumrill, 2004), which does not imply causality between them (Rumrill, 2004; Swanson & Holton, 2005).

Corporate Training

Corporate training refers to training and performance initiatives that are implemented in order to improve organizational needs; these initiatives can be developed by internal corporate universities or external providers (Sitnikov, Kruk, Zhuravleva, & Chupakhina, 2010). According to Morin and Renaud (2004), corporate training offers employees a wide range of training solutions related to the employees' skills, developmental needs, and organizational values. Corporate training refers to training interventions that (a) are focused on the achievement of business results, (b) support the development of competencies that support organizational growth, (c) include internal and external clients as key learners, (d) have as an objective to increase performance on individual and organizational levels, (e) are supported by active methods, and (f) are supported by a management team and partnerships with external providers.

Culture

According to Hofstede (1984), *culture* refers to the mindset shared by a society that distinguishes it from other societies. Van Tiem, Moseley, and Dessinger (2001) supported this view by indicating that culture refers to the system of values, beliefs, and behaviors shared by a group or an organization.

Human Capital

Human resources refer to the people working in organizations (Van Tiem et al., 2001), while *human capital* is the accumulated expertise from training and education (Torraco, 2009), and describes "the collective knowledge, skills, competencies, and value of the people in an organization" (Russo, 2011, p. 10).

Human Capital Theory

The human capital theory is an economic proposition that focuses on human development and promotes the return on investment (Swanson & Holton, 2009).

Human Performance Improvement (HPI)

Human performance improvement is a term interchanged with human performance technology (HPT) and

> is a results-based, systematic process used to identify performance problems, analyze root causes, select and design actions, manage interventions in the workplace, measure results, and continuously improve performance within an organization. It is based on the open systems theory, or the view that any organization is a system that absorbs environmental inputs, uses them in transformational process, and expels them as outputs. (Russo, 2011, p. 10)

According to the International Society for Performance Improvement (2004), HPT is a systematic approach that influences the behavior and accomplishments of individuals, based on a positive cost-effective relationship. Van Tiem, Moseley and Dessinger (2012) emphasize these definitions by indicating that HPI is the science and art that supports the improvement of individuals, processes, performance, organizations and society.

Human Resource Development (HRD)

Human resource development is the profession that describes the training and development experiences that seek to promote employee performance or growth (Russo, 2011); it is an interdisciplinary profession that is influenced by other fields of knowledge such as education, systems theory, economics, psychology, and organizational behavior

(Jacobs, 1990). Swanson (1995) pointed out that *HRD* is a process of developing human expertise supported by individual and organizational development in order to improve performance and proposed three theories that support this process: economic, psychological, and systems theories.

HRD Evaluation Research and Measurement Model

The *human resource and development evaluation research and measurement model* (Holton, 1996) is a learning transfer framework that proposes detailed relationships among the variables that affect learning transfer and their impact on learning, individual performance, and organizational results.

Individual Sales

Individual sales is the dependent variable of this study. According to Phillips and Phillips (2007), sales refers to "the sale of the product or service recorded in a variety of different ways: by product, by period, by customer" (p. 265). For this study, individual sales refer to the number of products sold, derived from the monthly average measured over a period of six to 12 months (as indicated in the organization's 2014 commercial report).

Instrument

Instrument refers to different types of data collection used in research (Jones & Kottler, 2006). According to Russo (2011), an instrument "Is a Human Resource Development (HRD) device such as an assessment, checklist, inventory, questionnaire, survey, or test to gather information" (Russo, 2011, p. 11). This study used the Learning Transfer Systems Inventory (Holton, 2005) to identify peer support, the independent variable that is a scale of the LTSI.

Learning Transfer

Learning "is the process of gaining knowledge, understanding, or skill by study, instruction, or experience" (Russo, 2011, p. 13), while *learning transfer* is the transfer of knowledge, skills, attitudes, and behaviors into the workplace (Baldwin & Ford, 1988; Hawley & Barnard, 2005; Holton et al., 2000; Holton et al., 1997; Phillips & Phillips, 2007). Learning transfer also describes the process of learning, delivery, retention, and implementation back on the job (Russo, 2011, p. 21).

Learning Transfer System (LTS)

The learning transfer system (LTS; Holton et al., 2000) is the framework that guided this study, defined as "all factors in the person, training, and organization that influence transfer of learning to job performance" (Holton, 2005, p. 44).

Learning Transfer Systems Inventory (LTSI)

The Learning Transfer Systems Inventory (LTSI; Holton, 2005) is a validated instrument that measures 16 factors classified into four scales and consists of 48 questions that are rated using a Likert scale (Holton & Bates, 2011).

Likert Scale

The *Likert scale* is a response alternative used for data collection to rate statements or attitudes (Russo, 2011). According to Combs and Falletta (2000), the Likert scale is "a popular response alternative developed by Rensis Likert" (p. 145) that presents a range of close-ended alternatives for response. Barksdale and Lund (2001) indicated that the scale ranges from 5 to 10 points that assign "numerical values to subjective data" (p. 169). For this study, the range scale was 1 (*Strongly disagree*), 2

(*Disagree*), 3 (*Neither agree nor disagree*), 4 (*Agree*), and 5 (*Strongly agree*).

Organization

Organization is “a collection of people working together to achieve a common purpose and a specific set of objectives” (Van Tiem et al., 2001, p. 352).

Peer Support

Peer support is the independent variable of this study and refers to "the extent to which peers reinforce and support the use of learning on-the-job" (Holton et al., 2000, p. 344).

Performance

Swanson and Gradous (1986) indicated that *performance* refers to the demonstration of behaviors that affect the accomplishment of activities and outcomes, while the International Society for Performance Improvement (2004) indicated that performance is about measurable outcomes and “those valued results produced by people working within a system” (p. 9)

Performance Technology

Performance technology is “the science and art of improving people, process, and performance” (Van Tiem et al., 2001, p. 353).

Systems Model of Performance Improvement in Organizations

The systems model of performance improvement in organizations (Swanson, 2005) is a systems theory that proposes the interrelationship among inputs, performance processes, outputs, and environmental variables that affect the organizational system.

Training

Training is one of the performance initiatives that strive for the establishment,

maintenance, and improvement of performance aligned with organizational needs (Van Tiem et al., 2001).

Assumptions, Limitations, and Delimitations

This section presents the potential weaknesses of the study regarding the sample size and generalization and the delimitations of scope and exclusions of the study.

Assumptions

The assumptions underlying this study were (a) the instrument and the theoretical foundation that supports the questionnaire was adequate for a Latin American work culture, (b) learning transfer was clearly understood by participants and the host organization supporting the study, (c) the sample size of 84 was adequate to conduct the correlational study, (d) participants signed the consent forms and attended the survey meeting voluntarily, (e) participants responded honestly to the questionnaire and did not have distractions during the survey, and (f) information about individual sales provided by the host organization was accurate and actual.

Limitations

The limitations of this study were (a) the identification of the degree of relationship between variables did not determine causation, (b) the selected sample were employees from commercial areas of one company, which limited the generalization of findings to Ecuadorian companies from other sectors, (c) the study analyzed just one variable that affected learning transfer and cannot present findings of the other 15 variables of the LTSI, and (d) the study analyzed only the last indicator of individual sales and did not include the analysis of historical data that could support the understanding of changing of individual performance.

Delimitations

The delimitations of this study were (a) the scope of this study included participants who worked in the automotive industry, excluding other production sectors, and (b) the study included only the analysis of participants in commercial areas who attended the last level of a sales training program and excluded participants from beginners' levels.

Organization of the Remainder of the Study

Chapter 2 presents the theoretical framework and the literature review of this study. Chapter 3 summarizes the alignment between research methodology, the research problem, and the research hypothesis. Chapter 4 presents the results of data collection and analysis of variables. Chapter 5 summarizes findings and implications for practice and presents a reflection about findings with regard the literature review. Also, the final chapter summarizes recommendations for further research.

CHAPTER 2. LITERATURE REVIEW

Introduction to the Literature Review

The purpose of this quantitative study was to explore the relationship between peer support and individual performance in a South American work culture. This chapter is organized around six critical topics: learning transfer and performance, historical perspective of learning transfer frameworks, learning transfer research, learning transfer and peer support, cultural dimensions, and sales performance. The literature review was based on the analysis of sources available in the Capella Library and databases such as Business Source Complete, Abi Inform Global, Proquest Education Journals, Academic Search Premier, Ebrary, Eric, and Sage. The sources were published in journals such as *Academy of Management & Learning Education, Advances in Developing Human Resources, Human Resource Development International, Human Resource Development Review, Human Resource Development Quarterly, Human Resource Management, International Journal of Training & Development, Journal of Applied Management Accounting Research, Journal of Management, Journal of Personal Selling & Sales Management, Performance Improvement Quarterly, Research and Practice in Human Resource Management,* and *Review of Business Research.* The search terms included *human performance improvement, learning transfer, peer support, work environment, systems theory, human capital theory, experiential learning, systems theory, cultural dimensions, collectivism, sales performance, and corporate training.*

Learning Transfer

In order to emphasize the importance of learning transfer for human resource development and performance specialists, the review of research presents a summary of learning transfer and performance perspectives and definitions. A description of previous historical models supports the understanding of the model while a detailed description of the learning transfer system (LTS) and the Learning Transfer System Inventory (LTSI) revise key variables affecting learning transfer. Then, the review of literature focuses on four relevant aspects of learning transfer research: the relationship between learning transfer and performance, the levels of importance of learning transfer variables affecting learning transfer, how the work environment can affect learning transfer, and limitations of learning transfer research. This section of learning transfer research introduces the most important general aspects of transfer and supports the understanding of the next section, peer support and learning transfer.

In the second place, the literature review presents a section of learning transfer and peer support that summarizes four key aspects: peer support findings, peer support characteristics, activities implying peer support, and manifestations of peer support in work cultures. The research findings section focuses on the importance of peer support, and the relationships between peer support and other factors such as supervisor support, climate, motivation to transfer, and years of job experience. Also, to deepen the understanding of peer support, the learning transfer and peer support section also summarizes the characteristics, defining peer support and the activities that imply or promote peer support. Then, the peer support section explains how peer support is related to work cultures.

Additionally, in order to understand the influence of work cultures on training and performance, the literature review also presents a section that includes a description of Hofstede's cultural dimensions, general findings of cultural dimensions, including Ecuadorian dimensions as a relevant description of the context in which this study was conducted. Finally, the review of research presents a topic with regard to performance on sales, including an explanation of indicators of performance and factors affecting performance on individual sales, including sales training. This last section clarifies the importance of individual performance when analyzing learning transfer as a key component of training programs. Finally, all sections of the literature review (learning transfer research, learning transfer and peer support, cultural dimensions, and sales performance) summarize key implications for learning transfer.

Learning Transfer and Performance

Although learning transfer is one of the most important challenges for learning and development, according to Phillips and Phillips (2007), research indicates that 60% to 90% of competencies gained during a training program are not applied to workplaces. This means that learning transfer is a relevant concern for training and human performance improvement because it supports the building of intellectual capital in organizations (Holton et al., 2000) and the understanding of the relationship between learning and performance (Holton, 2002). Kirwan and Birchal (2006) emphasized this idea by stating, "By increasing the amount of transfer, organizations can improve the rate of return on resources spent on training and development" (p. 266), and this is why training and performance initiatives focused on business results are key trends for organizations (Rothwell et al., 2007). For that reason, clarifying definitions of learning

transfer and performance is relevant to understanding learning transfer studies.

Learning transfer definition. *Learning transfer* or *transfer of learning* are interchangeable terms for transfer, training transfer, application of competencies, or other terms that refer to a change that occurs during or after a training initiative. In fact, the definition of learning transfer goes beyond the term *transfer* alone because transfer is comparable to a bridge between the origin of knowledge and the final destination (Oliver, 2009), while learning transfer refers to the application of learning previously acquired in the workplace (Russo, 2011). In other words, learning transfer is the application of gained knowledge, skills, attitudes and behaviors into the workplace (Baldwin & Ford, 1988; Hawley & Barnard, 2005; Holton et al., 2000; Holton et al., 1997). This definition holds that the application of competencies can affect performance, a term that presents a broader implication for human resource development.

Learning transfer and performance definitions. The difference between learning transfer and performance is that learning transfer is demonstrated through application while performance is demonstrated through results. According to Swanson and Gradous (1986), "Performance consists of the demonstration of specific behaviors designed to accomplish specific tasks and produce specific outcomes" (as cited in Holton, 2002, p. 199,). Sonnentag and Frese (2002) clarified this definition by indicating that performance refers to an individual's behavior in the workplace (action aspect) and also to the consequence of an individual's behavior (outcome aspect). Also, Holton (1999) indicated that performance systems and organizations are interchangeable concepts and emphasized "performance is defined by and depends on the mission of the organization" (p. 30). In other words, the focus of the performance is not only on the application or a

change in behavior but concerns a performance system that requires the accomplishment of goals. This idea can be clarified through the paradigm of HRD (Holton, 2002).

The purpose of the paradigm of HRD is "to advance the mission of the performance system that sponsors the HRD efforts by improving the capabilities of individuals working in the system and improving the systems in which they perform their work" (Holton, 2002, p. 201). In short, over the long term, the application of knowledge, skills, and behaviors should contribute to performance evidenced in organizational results. Nevertheless, despite the difference between learning transfer and performance concepts, both are complementary factors that support each other because the improvement of learning transfer can influence the improvement of performance (Pershing et al., 2008). For instance, Park and Jacobs (2011) confirmed this idea by indicating that learning is meaningful when interventions support the improvement of competencies and influence financial results, while Holton (2002) indicated that individual learning supports the development of performance and suggests that knowledge, expertise, and learning are performance drivers that can affect individual performance outcomes such as productivity and work output. For that reason, to support the organizational development, training and performance initiatives should focus on results beyond learning transfer.

Historical Perspective of Learning Transfer

For more than 50 years, different frameworks have enriched the understanding of the variables that affect learning transfer. A description of key theoretical frameworks that influenced the history of learning transfer follow.

The four-level evaluation model. The four-level evaluation model (Kirkpatrick,

2006) was one of the first approaches that analyzed the effects of training initiatives. According to Kirkpatrick, this model can measure the effectiveness of training and performance programs. However, Salas and Cannon-Bowers (2001) argued that the typology of Kirkpatrick (1976) was a useful framework only to assess learning outcomes. This difference can be understood by analyzing the components of the model.

The four-level evaluation model consists of reaction, learning, behavior, and results. Reaction is the first level and consists of identifying how participants feel about a training experience, while learning, the second level, focuses on the participant's performance. Behavior, the third level, consists of the application of gained competencies into the workplace, and the fourth level, results, refers to organizational performance (Kaufman & Keller, 1994). In other words, the third level of Kirkpatrick's model, behavior, confirmed the relevance of learning transfer (or application) for training effectiveness while the fourth level, results, introduced the importance of performance.

According to Kaufman and Keller (1994), evaluation levels "are compatible with and support any systematic effort to improve organizational performance, customer satisfaction, and societal contributions" (p. 373). On the other hand, research also indicates that the model has not been empirically tested (Holton, 1996), and its contribution was limited only to a valuable taxonomy (Cheng & Hampson, 2008). Furthermore, the lack of practical contributions may be explained by a difference between the meanings of evaluation and effectiveness.

According to Salas and Cannon-Bowers (2001), training evaluation refers to what works, while training effectiveness refers to why training works. That is, training evaluation focuses on measurements at different levels that act as inputs to identify

training effectiveness, while training effectiveness focuses on a systems perspective beyond the analysis of learning methods. Salas and Cannon-Bowers indicated that success is affected by organizational variables that support training and motivation and by processes that support the application of knowledge in the workplace. In summary, though Kirkpatrick's model does not present variables that affect learning transfer and training effectiveness, this model is useful to understand different levels of training evaluation. More specifically, the behavior level or the application of competencies suggests the importance of learning transfer for human resource projects.

Systems model of learning transfer. According to Cheng and Hampson (2008), by the late 1990s, an "explosion of empirical research" (p. 330) of learning transfer occurred. Researchers conducted several studies based on the systems model of learning transfer, as proposed by Baldwin and Ford (1988), to support training effectiveness. The systems model proposes a process comprised of three essential areas that affect learning transfer: input variables, output variables, and conditions of transfer. According to Baldwin and Ford, training input variables include (a) characteristics of trainees, such as ability, personality, and motivation; (b) design of training, analysis of learning principles, sequencing, and content; and (c) a work environment focusing on opportunity to use and support. Training output variables refer to the amount of the original training received at a time and the retention or gained knowledge after training, while conditions of transfer are the generalization and maintenance of gained knowledge into jobs. Also, the model supports the understanding of connections among training inputs, learning and retention, and conditions of transfer. The connections shown in Figure 1 propose a direct effect of training outputs over conditions of transfer and an indirect effect of training inputs over

conditions of transfer. Baldwin and Ford (1988) proposed that work environment, characteristics of trainees, and training design affect transfer "through their impact on training outcomes" (p. 66). The authors concluded that research was needed to analyze the effects of climate and support across workgroups and organizations. This last idea supports the importance of support as a key variable affecting transfer and results.

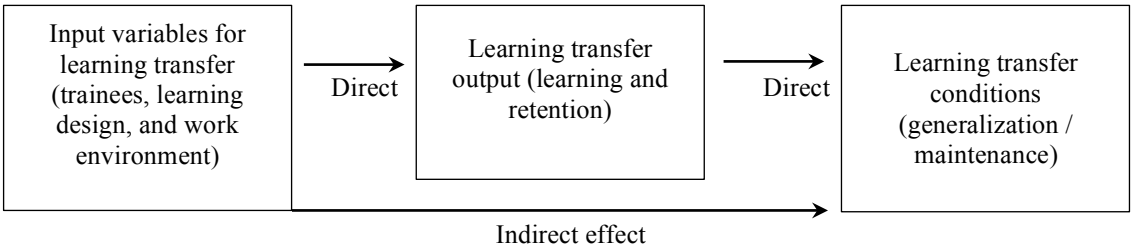

Figure 1. Effects of the learning transfer process.

Additionally, Grossman and Salas (2011) extracted the most consistent findings of transfer research and propose an adapted model of the transfer process by refining some variables that affect training inputs, as shown in Table 1. Grossman and Salas indicated that learning and retention are the output of training, while generalization and maintenance are the conditions of learning transfer. Grossman and Salas concluded that training design can affect learning and retention while trainees' characteristics and work environment can affect both learning and retention and generalization and maintenance. The authors concluded that trainees' characteristics depend on cognitive ability, self-efficacy, motivation to learn and transfer, and perceived utility of training. They also indicated that training design is a function of behavioral modeling, strategies to handle

problems, and realistic training environment. Finally, the authors refined the variables of the work environment by including transfer climate, supervisor and peer support, opportunity to perform, and post-training feedback. Grossman and Salas (2011) concluded that work environment variables are significant predictors of learning transfer and emphasized that supervisor and peer support can significantly affect the propensity to use gained competencies in workplaces.

Table 1
Comparison of Input Variables Affecting Learning Transfer

Theorists	Characteristics of Trainees	Training Design	Work Environment
Baldwin and Ford, 1988	Ability Personality Motivation	Principles of learning Sequencing Training content	Support Opportunity to use
Grossman and Salas, 2011	Cognitive Ability Self-efficacy Motivation Perceived utility of training	Behavioral modeling Error management Realistic training environment	Transfer climate Support Opportunity to perform Follow-up

Regardless of the importance of Baldwin's model to understand learning transfer, this model did not explain interactions of the process; therefore, practical implications were not determined (Kirwan & Brichall, 2006). According to Holton (1996), previous models were useful to enrich the conceptual thinking of evaluation of performance interventions though they had not been thoroughly tested. The HRD evaluation research and measurement model proposed by Holton (1996) was the first approach that tried to explain the interactions between learning transfer variables and performance outcomes.

HRD evaluation research and measurement model. The human resource and

development evaluation research and measurement model (Holton, 1996) proposes detailed relationships between learning transfer variables and their impact on different levels of performance outcomes. The model exhibits the effects of learning transfer variables, classified into primary influences and secondary influences, over different levels of outcomes. The primary influences include "ability, motivation to learn, reaction to learning, transfer design, motivation to transfer, transfer conditions, expected utility, linkage to organizational objectives, and external events" (Holton, 1996, p. 17). The primary influences can directly affect performance outcomes at three levels: (a) learning, (b) individual performance, and (c) organizational outcomes. Regarding the relationships among the three levels of outcomes, learning influences individual performance while individual performance influences organizational results. In addition, the learning transfer variables classified as primary influences are affected by the secondary influences, "intervention readiness, job attitudes, personality characteristics, and intervention fulfillment" (Holton, 1996, p. 17). The interaction of learning transfer variables that affect each other and determine the level of learning transfer supports the importance of organizational results when analyzing learning transfer. The HRD model supported several studies and was the first basis of the framework that guided this study, the Learning Transfer System Inventory (LTSI).

Learning Transfer System Inventory (LTSI)

Based on the analysis of previous research, the LTS (Holton et al., 2000) was created to guide the understanding of why training works through the application of the Learning Transfer Systems Inventory (LTSI). The LTSI "reflects more fully than the others the discussion in the literature concerning different factors that affect transfer"

(Kirwan & Birchall, 2006, p. 257). After revising previous studies of learning transfer and using the HRD research and evaluation model (Holton, 1996), Holton et al. (2000) conducted an exploratory factor analysis to "develop a generalized instrument that could be used across a wide range of training programs and organizations" (p. 340). Holton et al. (2000) proposed a conceptual model of the Learning Transfer System Inventory, as shown in Figure 2, that is a subset of a complete model and shows learning transfer variables affecting individual performance.

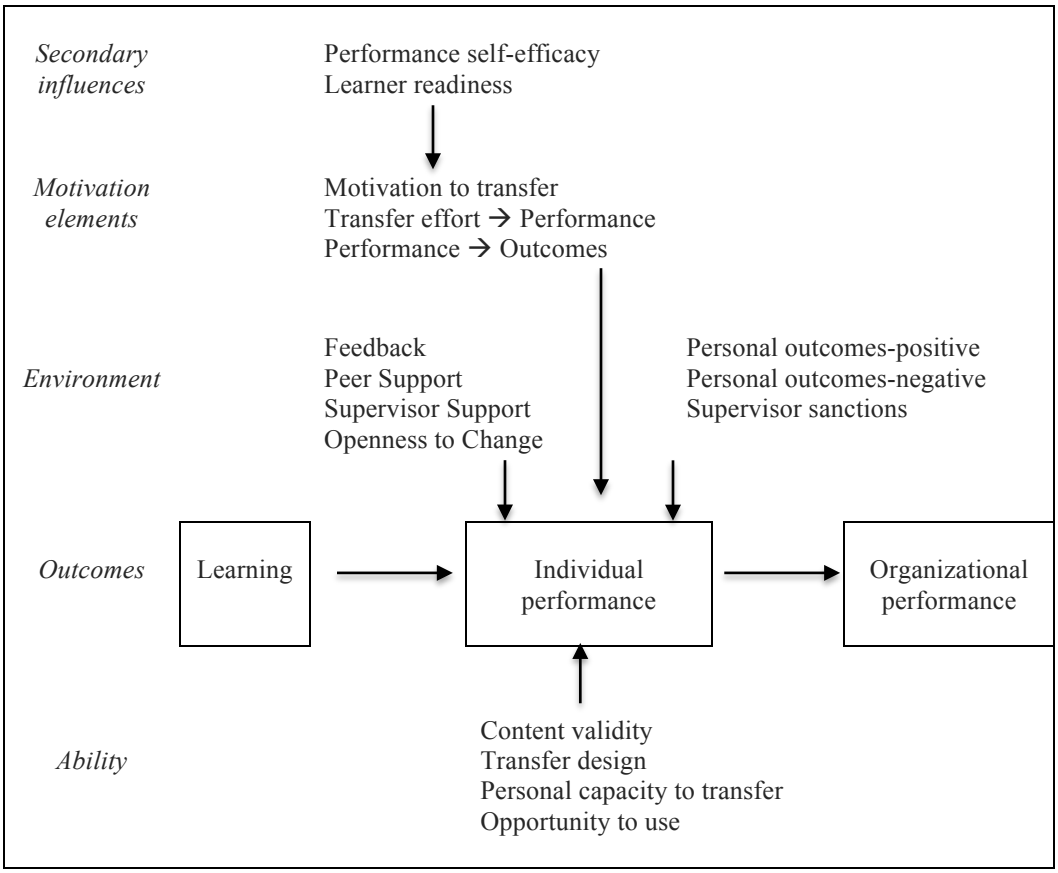

Figure 2. Learning transfer system conceptual model: Learning transfer framework being tested. From "Development of a Generalized Learning Transfer System Inventory," by E. F. Holton, III, R. A. Bates, and E. A. Ruona, 2000, *Human Resource Development Quarterly*, *11*, p. 339. Copyright 2000 by R. A. Bates. Adapted with permission.

Figure 2 indicates that secondary influences affect motivation factors. Primary influences such as motivation, environment, and ability affect individual performance, which at the same time is influenced by learning and can affect organizational performance.

Holton et al. (2000) refined the LTSI and classified the instrument into two sets of questions or scales: training specific scales or questions affecting specific training programs and general scales or questions affecting general training experiences. The author identified particular training programs constructs using factors such as "learner readiness, motivation to transfer, positive personal outcomes, negative personal outcomes, personal capacity for transfer, peer support, supervisor support, supervisor sanctions, perceived content validity, transfer design and opportunity to use" (Holton et al., 2000, p. 340). In addition, Holton et al. (2000) included "transfer effort-performance, performance outcomes, openness to change, performance self-efficacy, and feedback-performance coaching" (p. 340) to identify general training programs' constructs.

According to Holton et al. (2000), the LTSI is useful to (a) assess potential transfer before designing interventions, (b) follow-up evaluations, (c) diagnose training problems, (d) incorporate evaluation of transfer of learning systems, and (e) conduct needs assessment to identify supervisors' skills. In addition, Holton et al. (2000) indicated that the application of the LTSI can be useful to make international comparisons of learning transfer, manage environmental conditions, eliminate factors that prevent transfer, and improve performance systems. In summary, the LTSI is an integral learning transfer framework that explains detailed interactions of variables and performance outcomes and offers practical benefits for human resource development and

performance specialists; furthermore, it can be applied in different cultural work settings.

Learning Transfer Research

Regardless of the theoretical perspective of learning transfer, research also presents key general findings that support this study. Learning transfer studies have been conducted in different contexts in order to explore the meaning of learning transfer experiences (Burke & Hutchins, 2008; Cheng & Hampson, 2008; Grossman & Salas, 2011; Hawley & Barnard, 2005; Holton, 2002) and to test and refine frameworks (Cromwell & Kolb, 2004; Chiaburu & Marinova, 2005; Holton, 1996; Holton et al., 2000; Holton et al., 1997; Holton et al., 2007; Holton et al., 2003; Kirwan & Birchall, 2006; Martin, 2010; Moreno et al., 2010; Pidd, 2004; Saks & Belcourt, 2006). Both quantitative and qualitative research have provided valuable insights to understand common and diverse perspectives. In addition, studies confirmed a relationship between learning transfer and performance (Glaveli & Karassavidou, 2011; Kontoghiorghes, 2004; Sonnentag & Volmer, 2010; Wilson, Strutton, & Farris, 2002) and suggested that work environment and individual variables affect learning transfer more than learning transfer design (Leimbach, 2010).

Learning Transfer and Performance Findings

One of the key findings of learning transfer research refers to organizational performance. Literature presents studies about training initiatives that suggest connections among different elements of organizational systems, which affect individual or organizational outcomes. For example, Glaveli and Karassavidou (2011) conducted research in a Greek bank, and using an organizational performance model and a strategy map, the authors identified the effect of training on performance. Findings indicated that

formal, career-related, and long-term training affected learning transfer, job satisfaction, employee loyalty, service quality, and customer satisfaction, and at the same time affected profitability and value for stakeholders. In other example, Kontoghiorghes (2004) conducted a quantitative study to validate a learning transfer systemic model, administering a questionnaire to 505 participants from technical areas of a large automaker in the United States. Using a regression model, Kontoghiorghes indicated that an adequate work environment can support motivation to transfer learning and improve individual and organizational performance; the researcher concluded that learning transfer can increase job satisfaction and enhance loyalty, value, service quality, customer satisfaction, and profitability.

Also, Wilson et al. (2002) conducted a quantitative study with employees from a chemical industry to determine perceptual aspects of training attitudes, transfer, and salesperson's performance. By administering 512 surveys, Wilson et al. (2002) concluded that self-efficacy and learning orientation affect learning transfer and sales performance. Finally, Sonnentag and Volmer (2010) conducted a longitudinal field study with 327 students from a technical university in Germany; the authors concluded that teamwork engagement can improve individual performance. In summary, these studies confirm the positive impact that the transfer of learning may have on different levels of performance.

Impact of Learning Transfer Variables

Besides the relationship between learning transfer and performance, training and performance specialists need to understand the impact of variables affecting learning transfer. In short, literature has indicated that work environment factors can affect a high

percentage of learning transfer. For instance, Leimbach (2010) reviewed 32 learning transfer studies to identify tangible benefits of learning transfer variables. Using a model of impact of learning transfer on performance outcomes, Leimbach suggested that learner readiness (motivation to learn, intent to use, career goal alignment, and self-efficacy), can increase learning transfer improvement by approximately 70%. The author also indicated that learning transfer design, including practice and modeling, setting learning goals, and application review can increase learning transfer improvement by approximately 37%. Finally, findings showed that organizational alignment, including variables such as manager support/coaching, peer support, job connection, and learning culture, can increase learning transfer by up to 70%. In summary, organizational or environmental variables are as important as individual variables for learning transfer and organizational performance. Nevertheless, the impact of learning transfer variables can vary depending on cultural contexts.

Learning Transfer and Different Contexts

The impact of learning transfer variables does not seem to be constant. Literature has indicated that learning transfer varies depending on different contexts (Holton et al., 2007) or organization types (Holton et al., 2003; Saks & Belcourt, 2006). Studies also indicated that learning transfer depends on the circumstances of organizations (Chiaburu & Marinova, 2005), and the activities that organizations may incorporate to support transfer (Saks & Belcourt, 2006). In other words, organizational cultures or contexts can affect learning transfer. For example, Bates and Khasawneh (2005) indicated that organizational learning culture predicts learning climate, while Pidd (2004) argued that the variation of the effectiveness of social support depends on different contexts. In other

words, the variables of learning transfer should be interpreted according to the cultural context and the environment in which training is implemented.

Moreover, literature suggested identifying results of the LTSI among organizations and different contexts in order to reinforce the improvement of learning transfer (Holton et al., 2003; Martin, 2010) and using the LTSI to develop training and performance initiatives according to organizational realities (Holton et al., 2000). According to Holton et al. (1997), the cross-cultural application of the LTSI is necessary to test the validity and reliability of the instrument. Holton et al. (2007) added, "Cross-cultural construct validation studies using the LTSI are also needed to determine whether the factor structures obtained from U.S. samples is similarly valid with samples from other countries" (p. 415).

Learning Transfer and Work Environment

The work environment is a learning transfer variable that implies several conclusions. First, according to Holton (1996), training effectiveness depends on the link between ability to transfer, motivation to transfer, and environmental variables. That is, people working in supportive conditions are more likely to present a high motivation to apply skills and to improve individual performance, which at the same time can affect organizational results. Second, learning transfer is influenced by the work environment and is not limited by time. Burke and Hutchins (2008) gathered information on best practices for experienced training and performance professionals and concluded that learning transfer is potentiated in work environment contexts during design and delivery phases and is also affected by trainers and supervisors. The authors confirmed that learning transfer occurs before, during, and after training, although the analysis of

findings can vary depending on when the transfer occurs (Cromwell & Kolb, 2004). That is, learning transfer occurs more after and during training than before training (Burke & Hutchins, 2008). This phenomenon underlines the importance of focusing on delivery and post-delivery phases of training programs occurring in workplaces. For that reason, the work environment is a key factor influencing learning transfer.

Third, the work environment includes different variables. Holton et al. (1997) referred to the work environment factors as a training climate, "a mediating variable in the relationship between the organizational context and an individual's attitude toward the job and behavior on the job" (p. 96). Holton et al. (1997) proposed a valid and generalizable set of transfer climate variables that support the understanding of work environment and pointed out that climate constructs include supervisor support, opportunity to use, peer support, supervisor sanctions, personal outcomes, and resistance. A similar perspective proposed by Hawley and Barnard (2005) consisted of work system factors and people factors. Work system includes communication, change resistance, the opportunity to use learning, and the alignment of training and organizational objectives; people factors includes mentor's availability, supervisor support, and peer support.

Also, organizational and human resources of work environment can affect learning transfer in different ways. For instance, a negative learning transfer environment produces a lack of application of learning into workplaces (Holton et al., 2007), while the integration of climate variables can support learning transfer and improve individual performance (Holton, 1996). Finally, organizational climate, expressed by co-workers' encouragement or social or peer support, positively affects learning transfer (Lim & Morris, 2006; Salas & Cannon-Bowers, 2001). In summary, the work environment can

support or restrict the transfer of learning in different times, and the transfer depends on the circumstances and combinations of their variables.

Limitations of Learning Transfer Research

Despite the large amount of learning transfer research, literature indicated that previous studies present a lack of empirical testing (Holton, 1996), a lack of conclusive results and well-validated scales, little variability of outcomes (Holton et al., 2000), poor action orientation (Holton et al., 2003), low levels of transfer, ambivalent and mixed results (Grossman & Salas, 2011; Pidd, 2004), and inconsistent findings and unexpected results (Cheng & Hampson; 2008). For that reason, Holton et al. (2000) suggested the application of the Learning Transfer System Inventory (LTSI), "the most comprehensive and most extensively validated instrument to assess dimensions of the learning transfer climate that has been developed to date" (Holton et al., 2007, p. 414) in order to validate previous studies and contribute to new knowledge.

Although learning transfer and performance studies implied initial steps to test the relationship between learning transfer and performance, findings presented limitations regarding validation. The study of training and performance in a Greek bank was conducted with a small sample size of around 150 respondents, and conclusions confirmed the lack of generalizability to other service sectors (Glaveli & Karassavidou, 2011). Data collection for the systemic transfer model study (Kontoghiorghes, 2004) and the perceptual aspects of training study (Wilson et al., 2002) were gathered from single sources, limiting the generalization of findings. Besides, the lack of analysis of other environmental factors affecting performance implied incomplete interpretations (Wilson et al., 2002). Therefore, because the analysis of best practices of training transferred into

jobs is critical for human performance researchers and practitioners (Burke & Hutchins, 2008; Chiaburu & Marinova, 2005), further research regarding learning transfer variables affecting performance in the workplace (Holton et al., 2007) is needed.

Implications of Learning Transfer

Based on the analysis of learning transfer frameworks and previous research, one implication of learning transfer is that for training and performance improvement field, the most important implication is the relevance of focusing on organizational results beyond the demonstration of behavioral change. Although literature presented studies that indicated the association of learning transfer variables and performance results on individual and organizational levels, limitations of research imply the necessity of conducting further studies to understand the relationship between transfer and performance. Another implication is that based on previous research, learning transfer variables of organizational alignment (supervisor support, coaching, peer support, job connection, and learning culture) can influence a high percentage of learning transfer, so researchers and practitioners should focus on the study of these variables. Furthermore, the lack and variability of findings of learning transfer research suggest more research by applying a validated instrument such as the LTSI; also, the understanding of the LTSI scales and the application of the instrument in different context is essential to strengthen their validity and to understand the variability of factors.

Learning Transfer and Peer Support

Peer support is one of the most important environmental variables; it is the degree to which co-workers and peers of colleagues support the application of learning in the

workplace (Chiaburu & Marinova, 2005; Holton et al., 1997; Holton et al., 2007; Holton et al., 2003; Hua, 2013). The scale description of the LTSI indicated that peer support

> Includes the degree to which peers mutually identify and implement opportunities to apply skills and knowledge learned in training, encourage the use of or expect the application of new skills, display patience with difficulties associated with applying new skills, or demonstrate appreciation for the use of new skills. (Holton & Bates, 2011, p. 2)

Grossman and Salas (2011) summarized findings of peer support studies (Blume et al., 2010; Cromwell & Kolb, 2004; Gilpin-Jackson & Bushe, 2007; Hawley & Barnard, 2005; Marinova, 2005) and confirmed that peer support has a direct relationship with learning transfer. Grossman and Salas (2011) pointed out "of all of the work environmental variables, support has garnered perhaps the strongest evidence for its role in the transfer of training" (p. 114), while Clarke indicated that peer support is "perhaps the most consistent factor explaining successful transfer" (as cited in Martin, 2010, p.89). The relevance might be explained by findings of peer support studies, the characteristics that occur when trainees support each other, and the activities that imply peer support.

Peer Support Findings

Besides providing the definition of peer support as a determinant of learning transfer, research findings indicated that peer support is an emergent factor (Burke & Hutchins, 2008) that influences learning transfer more than supervisor support (Chiaburu & Marinova, 2005; Leimbach, 2010) and is useful to overcome the effects of negative climate (Martin, 2010). However, peer support could be reduced in the presence of unsupportive supervisors (Hawley & Barnard 2005). Literature also indicated that peer

support makes a significant contribution to motivation to transfer (a central role for learning transfer; Kirwan & Birchall, 2006) and represents a high level of importance to workers with higher levels of work experience (Petty, Lim, & Zulauf, 2000). Also, corporate trainees supporting each other in a positive climate showed better performance (Martin, 2010). The following sections summarize these findings.

Importance of peer support. First, peer support can be the strongest work environment predictor of learning transfer. Chiaburu and Marinova (2005) conducted a quantitative study with 186 employees from North American organizations to identify predictors of skill transfer and tested a model that included individual dimensions, supervisor support, and peer support. Findings indicated a greater relationship between peer support and skill transfer than peer support and pre-training motivation. Besides, Chiaburu and Marinova concluded that supervisor support was not related to pre-training and skill transfer and that peer support affects learning transfer more than supervisor support. Leimbach (2010) agreed with this conclusion and suggested that peer support can increase learning transfer by up to 33% more than job connection, which represents 20%, and more than manager support and learning culture, which each represent 13%. That is, peer support is a crucial environmental variable that affects learning transfer.

Peer support and supervisor support. The second interesting finding was that the effects of peer support can vary depending on the level of supervisor support. Hawley and Barnard (2005) conducted a qualitative study with participants from different geographic locations to understand the relationship between the characteristics of co-workers, supervisor support, and learning transfer. Based on Baldwin and Ford's (1988) and Holton's (1996) learning transfer frameworks, concurred that although peer support

is a key work environment variable, insufficient manager support affects peer support and learning transfer negatively. In other words, the relevance of peer support can be reduced when supervisor support is poor.

Peer support and climate. The effect of peer support on climate is a third key finding. Peer support may be useful to reduce the effects of a negative climate. For instance, Martin (2010) conducted a study with a group of 237 managers working in a manufacturing company to determine the interaction of peer support and work environment on learning transfer. Findings showed that corporate trainees with a positive climate and peer support showed better performance and indicated that peer support can be especially beneficial to overcome the effects of a negative climate. However, Martin confirmed that the positive effects of peer support over an undesired climate can be negatively affected by an inadequate supervisor support.

Peer support and motivation to transfer. Another conclusion is the positive relationship between peer support and motivation to transfer. Kirwan and Birchall (2006) conducted a quantitative study with a sample of trainees attending to management development program to test the LTSI. By applying a regression model and correlation techniques, the authors confirmed the LTSI constructs and determined a significant contribution of peer support, feedback, and coaching to motivation to transfer; they also confirmed the central role of motivation to transfer in the whole system.

Peer support and years of experience. Finally, research indicated that peer support can be a crucial variable for learning transfer for workers with many years of experience. Petty et al. (2000) conducted a quantitative study with 278 full-time employees from a production sector to determine the influence of training delivery

methods on learning transfer. Findings revealed no differences in transfer between traditional and technical delivery methods but indicated that demographic variables affected individual transfer variables more than organizational variables such as peer support. Additionally, findings showed different levels of support depending on years of work experience, and the authors concluded that workers with higher levels of experience need more support from peers to transfer the knowledge or skills into workplaces. This finding implied that peer support activities can potentiate learning transfer, especially for employees with more experience.

Peer Support Factors

Beyond the understanding of the effects of peer support, it is important to understand the characteristics that define peer support. For instance, observation, feedback, exchange of information, and collaboration are key characteristics of peer support. When trainees share ideas about training contents, give assistance, offer positive feedback, and network with peers, they facilitate learning transfer (Hawley & Barnard, 2005). Gilpin-Jackson and Bushe's findings indicated that "observing others using trained skills and being able to coach one another greatly facilitated training transfer" (as cited in Grossman & Salas, 2011, p. 114). Blair and Seo (2007) concluded that peers' daily observation and feedback regarding new behaviors and peers' mutual coaching to support training are two powerful strategies to integrate into work gained skills and behavior. Cromwell and Kolb (2004) emphasized these ideas by stating, "The exchange of information and the support provided by group network is relevant for transfer of training that emphasizes and encourages information exchange and collaborative effort" (p. 455). Additionally, according to a study about best practices in training transfer

conducted with training professionals of the American Society for Training and Development (ASTD), peer support and collaboration with colleagues are emergent factors of transfer that should be key components of a refined model (Burke & Hutchins, 2008).

Peer Support Activities

Besides the characteristics that define peer support, research also summarized different activities that included peer support and promoted the improvement of learning transfer and performance. For example, Pidd (2004) indicated that the effect of peer support in learning transfer depends on the level of identification between individuals and the workgroup or organization. In order to improve the effectiveness of training, Pidd emphasized the necessity to include workplace social support activities in training by indicating, "Training programs could incorporate strategies such as team building that are designed to increase the degree to which individual trainees identify with workplace groups and provide support for the training content" (p. 286). Shaw, Duffy, and Stark (2000) indicated that task interdependence and preference of work groups can predict performance results, while Dayaram and Fung (2012) concluded that team learning affected team performance and suggested the implementation of cooperation initiatives in order to achieve organizational goals.

Moreno et al. (2010) supported these statements and indicated that workgroup initiatives are innovative methods to potentiate learning transfer and that learning in work groups involves a collective, shared, and meaningful learning that supports learning transfer and individual and organizational changes. Moreno et al. (2010) conducted a study with a group of Spanish professors in order to identify the characteristics of

workgroups that affect the application of learning into jobs. Findings showed that participants transferred approximately 50% of learning and suggested that the main factors that influenced the transfer were motivation to apply, success expectations, suitable climate, availability of resources, and peer support. Moreno et al. suggested the importance of supporting teamwork and cooperative learning initiatives to promote future performance improvement.

Moreover, the actions of peers, such as networking, immediately after training or after long periods, are financially convenient to improve learning transfer (Cromwell & Kolb, 2004). Hawley and Barnard (2005) emphasized the importance of peer support activities by indicating that due to the increasing globalization and the use of technology, organizations and teamwork are flatter, and the understanding of peer support and the identification of initiatives supporting teamwork are essential. Park and Jacobs (2011) agreed with this statement and suggested that a blend of training with task force team projects can maximize the effectiveness of workplace learning. In addition, Holton et al. (2000) indicated that depending on peer support results of the LTSI, performance initiatives might include team building. In summary, workgroups, social support activities, teamwork, cooperative learning, or team projects are activities that can enhance peer support and consequently the transfer of learning.

Peer Support and Work Cultures

Besides the identification of peer support effects, characteristics, and the activities promoting them, different circumstances and contexts can affect peer support. Literature indicated that learning transfer varies depending on different contexts and organizations. That is, cultural differences can affect the level of support for transfer results. For

example, Holton et al. (2003) compared and contrasted the results of the LTSI in three organization types, eight organizations, and nine types of training and confirmed that transfer systems differ across organizations and training characteristics. Moreover, Holton et al. (2003) suggested that peer support might be a better predictor of transfer than supervisor support when organizations show a strong team culture. On the other hand, the authors indicated that peer support might be less important than supervisor support in the case of a state government institution. Based on these findings, it might be useful to identify peer support as it affects learning transfer, especially in countries that present cultural dimensions aligned with team cultures.

Peer Support Implications

Based on the analysis of research, peer support is a key environmental variable that, depending on the cultural context, can increase learning transfer more than other work environment variables. The effect of peer support for learning transfer can increase when observation, feedback, collaboration, and assistance of peers is promoted. Peer support can be potentiated through the reinforcement of the identification of peers with social groups and the organization and the implementation of strategies such as workgroups, team building, networking, or team projects. These phenomena imply that training and performance initiatives that include peer support can increase learning transfer (a) when training and performance programs potentiate transfer, especially during and after delivery phases and even under a complicated climate; (b) when motivation to transfer is low or when there is a necessity to increase motivation to transfer, especially for experienced employees; (c) when the desire is to improve individual performance, provided that the climate is adequate; (d) when supervisors

support learning transfer, and (d) when organizations or contexts present characteristics aligned with team cultures.

Cultural Dimensions

In order to understand the importance of the influence of different contexts on learning transfer, this section presents key definitions, characteristics, and research findings of cultural dimensions. More specifically, organizations are influenced by values of national cultures, and culture refers to shared values and beliefs (Bunch, 2007). According to Hofstede (1984), culture "is the collective programming of the mind which distinguishes the member of one group of society from those of another" (p. 82), and it indicates that people-related projects require the understanding of values and beliefs that depend on the collective programming and experiences of the people involved. Hofstede (as cited in Hidalgo Campos, Manzur Mobarec, Olavarrieta Soto, & Farías Nazel, 2007) also indicated that the definition of culture can be applied to nations, organizations, professions, religions, or ethnic groups. Dartey-Baah (2013) clarified this idea by indicating that national cultures affect organizational culture, and both can influence human resource projects and performance concerns such as return on sales or return on investments. Nevertheless, national culture refers to the values and mental models constructed during the first years of life while organizational cultures refer to the practices acquired in workplaces (Hofstede, Hofstede & Minkov, 2010).

Hofstede's Cultural Dimensions

The typology of Hofstede is one of the most important approaches to explaining the cultural differences around the world. After conducting a study for more than 50 years with 50 multinational subsidiaries from around 70 different countries, Hofstede

(1984) proposed five cultural dimensions, as summarized in Table 2: individualism versus collectivism, large versus small power distance, strong versus weak uncertainty avoidance, masculinity versus femininity, and long-term versus short-term orientation.

Table 2
Summary of Hofstede's Cultural Dimensions

Cultural Dimension	Description	
Individualism versus collectivism	Individualism is an "I" self-concept that refers to the preference that a society has for taking care of themselves and immediate family.	Collectivism is a "we self-concept" that refers to the preference that a society has for taking care and be loyal to family, relatives, or groups.
Large versus small power distance	Large power distance is the acceptance of power inequalities, or the high acceptance of hierarchical order.	Small power distance is the no acceptance of power inequalities, and demands justification of power inequalities.
Strong versus weak uncertainty avoidance	Strong uncertainty avoidance is the no acceptance of ambiguity or uncertainty and the acceptance of rigid codes of behaviors.	Weak uncertainty avoidance refers to the preference of practice over principles, and acceptance of unknowing situations.
Masculinity versus femininity	Masculinity is a self-concept that refers to the preference that society has for material success, achievement, heroism and assertiveness.	Femininity is a self-concept that refers to the preference for modesty, relationships, caring and quality of life.
Long term orientation versus short term normative orientation	Long-term orientation is a pragmatic viewpoint that supports modern initiatives to be prepared for the future.	Short-term orientation refers to the preference for maintaining and respecting time traditions and norms while seeing changes with suspicion.

Note. Hofstede's cultural dimensions were used as the basis of the creation of this table.

Individualism versus collectivism. This is the first dimension that refers to the individual or group role. Individualism is task-oriented, while collectivism is personal relationship-oriented. Individualist societies value privacy, autonomy, and individual liberty (Hidalgo Campos et al., 2007), and this is why people make decisions based on

individual thinking (Dartey-Baah, 2013). People are educated in terms of individual interests and the application of value standards to everybody. Honesty is appreciated; friendship is voluntary, and individual ownership is valued. These societies are associated with the interest in personal time, appreciation for freedom, and challenging work activities. Individual needs of employees are respected, relationships of employers and employees are business transactions, decisions are taken based on personal freedom, and poor performance is a justified reason to end a working relationship (Hofstede et al., 2010).

On the other hand, collectivism is the level of interdependence that individuals maintain among themselves in a society; it is defined as the preference of belonging, caring, and expectation of loyalty from the family or a close group. In collectivist societies, individuals belong to and protect their groups in exchange for loyalty. In addition, collectivist cultures are high-context communication societies (Mooij & Hofstede, 2010) that value group loyalty, commitment to group, social cohesion, and collective activities more than individual goals, autonomy, and privacy (Hidalgo Campos et al., 2007). According to Hofstede et al. (2010), collectivist societies prefer harmony to confrontations, friendship is determined, sharing of resources with relatives is expected, and high-context communication and public socialization are common. Hofstede et al. indicated that collectivism is associated with the interest in training to improve competencies, the appreciation for good physical conditions for working, and the willingness to fully use skills and abilities in workplaces. In workplaces, relationships between employer and employee operate on moral sense, and the level of performance is not a reason for firing. In addition, Dartey-Baah (2013) indicated that collectivist

societies act based on the needs of the group, individual liberty is not supported, and creativity and innovation are not promoted; people feel more comfortable with group-based training and feedback than individual training and feedback.

Large versus small power distance. The second dimension, power distance, refers to the dependence relationships in countries and the extent to which the less powerful people accept the unequal distribution of power (Hofstede et al., 2010). In societies that present a large power of distance, people accept different power statuses (Hidalgo Campos et al., 2007); loyalty and obedience to individuals in higher authority is the norm (Dartey-Baah, 2013); employees are unlikely to approach emotionally or contradict their bosses (Hofstede et al., 2010); and in workplaces, centralization of power, structured hierarchies, and relationships based on emotions are common. On the other hand, in societies presenting small power of distance, inequalities are minimized, interdependent relationships are supported, children and adults are treated as equals, people prefer consultation, and the dependence of employees on bosses is limited; organizations are decentralized, and bosses are accessible to employees (Hofstede et al., 2010).

Strong versus weak uncertainty avoidance. This third cultural dimension is the extent to which a society accepts or rejects unclear or ambiguous situations. Strong uncertainty tries to control the future while weak uncertainty let events unfold (Hofstede et al., 2010). In societies that feature strong uncertainty, people protect conformity, maintain rigid codes, and are intolerant of different viewpoints (Hofstede, 1984), which can cause anxiety (Hofstede Centre, n.d.). These societies also feel uncomfortable with non-structured situations and prefer order, clear rules, and laws (Hidalgo Campos et al.,

2007). In workplace settings, people are usually risk-averse and accept rigid processes for decision-making (Dartey-Baah, 2013). Moreover, work-life balance is more difficult, organizations value technical solutions and experts' viewpoints, employees have an emotional need to be busy, work hard, and be motivated by security and a sense of belonging. Managers focus on daily operations, creativity is limited by rules, and implementation is more important that innovation.

On the other hand, societies with weak uncertainty avoidance tolerate the ambiguity and uncertain situations, seem to be more practice than principles oriented, prefer a relaxed work environment, and are tolerant of deviant viewpoints. Additionally, organizations apply only the strictly necessary rules, are tolerant of chaos, and value common sense and the opinion of generalists; managers focus on strategies and support more invention than implementation initiatives; and employees are motivated by achievement (Hofstede et al., 2010).

Masculinity versus femininity. Masculinity is the fourth cultural dimension that values challenge, recognition, competition, and earnings. According to Hofstede et al. (2010), masculine societies value excellence in education and competitive scenarios while failures are considered to be disasters. Aggression might be accepted, and job choices depend on career opportunities. Masculinity is associated with giving importance to opportunities for high earnings, challenges for accomplishments, and recognition for exemplary work, career development, and higher levels of jobs. Management might be decisive and aggressive, negotiation is based on strengths, rewards depend on equity, financial earnings are preferred over personal time, and people live to work.

Hofstede et al. (2010) added that feminine societies value average performance,

aggressive behavior is not accepted, and job choices depend on internal interests. Femininity is associated with the importance of having positive relationships with managers, working in cooperation with others, living with the family in a positive climate, and having job security. Management is based on consensus and intuition, conflicts are solved through negotiation and commitment, leisure time is preferred over financial earnings, and people work to live.

Long-term orientation versus short-term orientation. Finally, this dimension refers to supporting or limiting modern trends to the future. Long-term orientation supports the acceptance of the newest or futuristic initiatives, while short-term orientation focuses on maintaining traditions and norms. According to Dartey-Baah (2013), societies with long-term orientation adapt traditions to modern contexts, present high savings ratio, are perseverant to get slow results, and value the virtue. People are pragmatic and accept unexplained facts due to the complexity of the world. Hofstede et al. (2010) indicated that learning, honesty, accountability, and self-discipline are the principal work values, organizations value lifelong personal networks, employers and employees share similar aspirations, and financial goals are long-term oriented.

On the other hand, societies with short-term orientation are concern with traditions and do not accept changes easily, present lower savings ratio, are oriented to quick results, and value the possession of the truth (Dartey-Baah, 2013). Short-term societies present a normative orientation, which means that people try to explain as much as they can. Hofstede et al. (2010) also indicated that main work values in short-term oriented businesses include freedom, rights, achievement, and individual thinking; leisure time is essential, individual loyalty depends on organizational needs, employers and

employees do not share similar aspirations, and financial goals are focused on current periods.

General Findings of Cultural Dimensions

In order to understand how different countries differ in terms of cultural values, this section summarizes general findings around the world. According to Hofstede et al. (2010), large power distance societies are aligned with collectivist countries while the small power of distance is related to individualist countries. Asian and Latin countries present a high level of power of distance while German-speaking and Nordic countries present low levels; the highest level of power distance is for Malaysia, and the lowest level is for Austria. Hofstede et al. also indicates that in the majority of societies, people prefer the interest of the group to the individual, and collectivist societies tend to be poor while individualist tend to be rich. The report of the Hofstede Centre (n.d.) shows that the United States represents the highest level of individualism and Australia represents the second highest level of individualism. On the other hand, Guatemala has the highest level while Ecuador presents second highest level of collectivism.

The Hofstede's cultural dimensions also indicate that Latin American, Latin European, and Mediterranean countries present high scores on uncertainty avoidance; the highest level of uncertainty avoidance is for Greece, and the lowest level is for Singapore. Regarding masculinity, the highest level of masculinity is represented by Japan while the highest level of femininity is represented by Sweden. Latin American countries vary the masculinity-femininity scale. For example, Central American countries are feminine while Colombia and Ecuador are strongly masculine. Findings also indicate that East Asian countries are long-term oriented, and South Korea represents the highest rating. In

contrast, Anglo countries such as Canada, New Zealand, United States, and Australia represent short-term oriented countries (Hofstede et al., 2010).

Ecuadorian Cultural Dimensions.

A Latin American country that can represent the cultural dimensions of other countries of the region is Ecuador. Although there is no rating for long-term versus short-term orientation for Ecuador, this country presents a high score of power distance, very high score of collectivism, high score of uncertainty avoidance, and a high score of masculinity (Hofstede Centre, n.d.). These findings indicate that Ecuador values cooperation, solidarity and belonging, and respecting group decisions more than individual interests and goals (Hofstede, 1984). Because of the high power distance, Ecuadorians identify themselves with different groups depending on social distinctions, accept inequalities, and believe that these inequalities are linked to social classes. The high level of collectivism and power of distance implies that Ecuadorians value relationships, avoid conflicts with groups in order to preserve harmony, and although group decisions are essential, decisions might be mainly taken by the holders of power (Hofstede Centre, n.d.).

Ecuador presents a high level of uncertainty avoidance, which means that people look for different strategies to avoid uncertainty such as the use of rules, policies, norms, traditions, and structured processes and decisions. This dimension, combined with the high power of distance, means that the power holders decide about rules and norms, and that combined with the very high collectivism, these strategies are supported and respected to preserve the group cohesion (Hofstede et al., 2010). Ecuador is also a masculine and hard-working society driven by competition, achievement, success, and

status. Because Ecuador is a collectivist society, competition might be toward groups that do not represent a sense of belonging or implication of success. The members of Ecuadorian society might prefer success and earnings to consensus and positive relationships (masculinity); at the same time, they might try to maintain group cohesion over personal interests (collectivism) using several strategies to reduce ambiguity (uncertainty), especially from those who are the power holders (power of distance).

Implications of Cultural Dimensions for Learning Transfer

The level of identification with different organizations or social groups can affect the transfer of learning. Holton et al. (1997) suggested that work groups' beliefs about the organization, social roles, and perceptions about themselves may determine the level of acceptance of training and learning transfer. Cheng and Hampson (2008) pointed out, "since trainees would determine to which social group they should refer, these referent others become stimulants of transfer behavior and may be one missing link in the transfer process" (p. 335). Hence, social values, perceptions of social groups, and viewpoints about group interactions can influence the transfer of learning and the level of impact of learning transfer variables.

Cultural dimensions are essential for the effectiveness of training and learning transfer. According to Bunch (2007), training failure has been related only with variables of learning transfer frameworks without noticing the importance of beliefs, values, and assumptions that can limit the transfer of learning; Bunch suggested researchers should focus on the differences in social contexts to better understand the transfer process. For example, Rogers and Spitzmueller (2009) concluded that collectivist people exhibit high intentions to transfer learning while Dartey-Baah (2013) indicates that group-based

training and feedback are adequate for collectivist societies. In other words, workgroup activities that feature peer support might impact the effectiveness of training, learning transfer, and performance in collectivist cultures such as Ecuador's.

Sales Performance

Besides attempting to understand how cultural dimensions potentially affect workplace cultures, this study presents key definitions and characteristics that support the importance of the independent variable, individual sales. Sales indicators are tangible benefits that can be used to analyze organizational performance. In the training and performance field, the objective of training programs is the application of new competencies reflected in changes of behavior and the improvement of accomplishments that need to be financially measured (Gilbert, 2007). Phillips and Phillips (2007) supported this statement when they proposed that evaluation phases of performance programs should focus on the analysis of outcomes, including intangible benefits and their potential impact and tangible benefits and their monetary value. Intangible benefits may include customer service, team effectiveness, innovation and creativity, reputation, image, employee capabilities, social responsibility, leadership, communication, stress, networking, intellectual capital, or any other indicator that can or cannot be converted to monetary values but can imply an invisible advantage to organizations. On the other hand, tangible benefits are the most common outcomes associated with organizational goals and monetary values, such as profit margin, retention rate, customer profit, workload, inventories, market share, and sales. This final indicator has been a common metric to evaluate sales force performance (Kumar, Sunder, & Leone, 2014).

Individual Sales

From an organizational perspective, according to Phillips and Phillips (2007), sales indicators are one of the most important standard values for organizations because they can be directly converted to profit. Phillips and Phillips defined sales as "the sale of the product or service recorded in a variety of different ways: by product, by period, by customer" (p. 265). Thus, regardless of the kind of recorded data, this indicator should imply a financial value. For example, common sales indicators are turnover decrease, customer satisfaction improvement, selling costs decrease, sales force improvement, time management efficiency, and improvement of sales volume (Leach & Liu, 2004). Particularly, unit sales evaluation is an objective measure of performance on sales because this rating can show a quantitative level of improvement (Kumar et al., 2014).

Sales Performance and Training

One of the most important factors that affects sales performance is training. According to Zoltners, Sinha, and Lorimer (2012), monetary incentives have been commonly used to support performance on individual sales. Nevertheless, according to Dong-Gil and Dennis (2004), "prior studies suggest that no single factor can explain a large proportion of the variation in sales performance" (p. 318); previous research also indicated that sales performance depends on knowledge, experience, and expertise. Zoltners et al. (2012) argued that incentives may produce undesired results on sales performance. The authors proposed a sales force framework that included additional drivers representing an equal level of importance, such as sales process design; size, structure and alignment; hiring; data, tools and customer targeting; training; sales manager and coaching; performance management and goal setting; and culture.

In most cases, training is an initiative that can influence the improvement of skills and performance of salespeople. Capability is a sales factor that affects sales innovativeness, sales supportiveness, and customer orientation, which at the same time can influence job satisfaction and outcomes of sales performance (Evans, Landry, Po-Chien, & Shaoming, 2007). Bell, Mengü and Widing (2009) proposed a similar perspective by indicating that the competencies of salespeople may affect customer orientation and sales performance, while after analyzing four years of training data, Kumar et al. (2014) indicated that task-related sales training and growth-related sales training programs can affect individual sales performance. In addition, Zoltners et al. (2012) indicated that training is a sales force effectiveness driver that has a very strong impact on sales capabilities, which at the same time have a very strong impact on sales quality and a strong impact on sales quantity. These connections entail that sales training efforts should be aligned with sales indicators (Leach & Liu, 2004).

The United States spends around $10 billion per year in sales training due to the importance of the continuous improvement of skills and knowledge of sales persons (Sager, Dubinsky, Wilson, & Shao, 2014). Nevertheless, literature about sales shows contradictory findings regarding the effect of training and learning transfer on performance on sales. For example, Kontoghiorghes (2004) concluded that learning transfer can increase service quality, customer satisfaction, and profitability. Wilson et al. (2002) concluded that learning orientation affects learning transfer and sales performance. Kumar et al. (2014) pointed out that sales training is effective when the application is based on needs and preferences of salespeople and suggested that organizations implement sales training with restraint because the positive effect on

performance decreases with overtraining. Kumar et al. (2014) suggested that salespeople need to attend to limited training programs and implement them only when objectives support the improvement of selling performance.

Nevertheless, literature also indicated that learning transfer does not influence sales performance. Sager et al. (2014) conducted a study to test a learning transfer model that predicted a favorable impact of learning transfer over salesperson performance. Conclusions indicate that though organizational support affects learning transfer, learning transfer does not predict salesperson performance perhaps because the training content was designed to make the customer feel comfortable instead of focusing on their needs. These conclusions imply that sales performance might depend on the combination of several factors and not only one variable such as incentives or sales training (Zoltners et al., 2012). For that reason, after conducting a study to test a training evaluation model, Leach and Liu (2004) concluded that sales organizations trying to improve performance of salespeople should understand the effectiveness of training by focusing on learning transfer variables.

Implications of Individual Sales

Based on the analysis of sales performance, a key conclusion is that sales indicators are tangible measures of performance because they can be objectively and financially measured. With that in mind, there are different factors that can support the improvement of sales performance. For instance, the use of incentives has been a common initiative to promote better results of sales. Nevertheless, the literature suggested further research to understand the application and combination of several initiatives. For example, sales training can depend on organizational needs, the

preferences of salespeople, the duration of training and performance programs, and the understanding of learning transfer variables. Therefore, this study supported the understanding of how sales training can affect learning transfer and sales performance.

Chapter 2 Summary

The Learning Transfer System Inventory (LTSI) supports the understanding of the effect of peer support in a collectivist culture. The human capital theory supports the necessity of focusing on the return on investment of training programs that include peer support. The systems model supports the understanding of the relationships between peer support and individual outcomes. Also, in the training and performance improvement field, a focus on organizational outcomes such as individual sales is important. The effect of peer support can vary depending on the characteristics of work cultures. Therefore, it seems that activities that include peer support might positively affect learning transfer and performance in a collectivist culture.

Training and performance practitioners could benefit from considering learning transfer frameworks, theories of human resources, cultural dimensions, and performance outcomes when analyzing performance opportunities, designing, developing, implementing and evaluating training and performance initiatives. In addition, by identifying the degree of the relationship of peer support that affects learning transfer and individual performance, researchers can test the LTSI in different contexts while practitioners can promote or reduce activities that involve peer support (such as workgroup initiatives) when designing and implementing training and performance programs in Ecuador. Additionally, corporate training organizations will benefit from knowing if training and performance programs that promote peer support influence

learning transfer and individual performance. Consequently, this study advanced the scientific knowledge base of training and performance improvement field in a South American work culture.

CHAPTER 3. METHODOLOGY

Introduction

Previous literature suggested to conduct learning transfer research in different contexts (Holton et al., 2003; Martin, 2010), and to apply the LTSI for practical reasons (Holton et al., 2000). Based on the literature review, this study answered the following research question: To what extent is there a relationship between participants' peer support and performance on individual sales in a South American work culture? This study supported the understanding of trainees' perceptions regarding the effect of a learning transfer variable on individual performance in the workplace. Chapter 3 presents the research hypothesis, research design, instrumentation, procedures for data collection, expected findings and ethical considerations of a quantitative non-experimental research that correlated peer support and individual sales among a group of employees who participated in a sales training program in an Ecuadorian work setting.

Purpose of the Study

Burke and Hutchins (2008) indicated that job performance should be an outcome of training and performance initiatives and proposed testing learning transfer models with quantitative methods to support their understanding. The purpose of this quantitative study was to explore the relationship between peer support as described in the Learning Transfer Systems Inventory (LTSI; Holton, 2005), and individual performance in a South American work culture. This study could be useful for performance specialists and

researchers to understand how learning transfer occurs in a South American work culture in which collaborative activities are highly valued.

Research Hypothesis

With the aim of exploring the research problem of this study, the following alternative and null hypotheses were formulated:

H_1: There is a relationship between peer support and performance in individual sales among a group of sales consultants who participated in a training program in a South American work culture.

$H_Ø$: There is no relationship between peer support and performance in individual sales among a group of sales consultants who participated in a training program in a South American work culture.

Research Design

The paradigm that supported this study was positivism, an objective approach independent of social influences and the researcher's interpretations that analyzes facts based on relationships of variables (Swanson, 2005; Wahyuni, 2012). The methodology of this study was a correlational non-experimental research. Non-experimental research design focuses on the study of a phenomenon without the implementation of a particular intervention or manipulation (Gall, Gall, & Borg, 2003; Ravid, 2011). Moreover, correlational non-experimental quantitative research "seeks to determine the degree of relationship between two or more variables" (Lodico et al., 2010, p. 32). Creswell (2012) emphasized this idea by adding that correlational studies determine the degree of relationship "at one point in time" (p. 358) while Ravid (2011) added that correlation is a procedure that quantifies relationships based on the analysis of a correlation coefficient.

The correlation coefficient is useful to identify how the dependent variable can be explained by the variation of the independent one by defining the degree and direction of the correlation, positive or negative (George & Mallery, 2012; Sirkin, 2006). Nevertheless, the direction of correlation does not imply causation between variables (McMillan & Schumacher, 1997; Ravid, 2011).

According to the research purpose, the research problem, and the hypotheses regarding the association between only two variables, this study used the Pearson product-moment or Pearson's correlation (George & Mallery, 2012). The Pearson's correlation was adequate to identify the correlation between two continuous variables measured on interval scales (Ravid, 2011), peer support (as measured by the LTSI), and individual sales (as reported in organizational documentation), without implying causation. According to Anderson, Sweeney, and Williams (2008), the *F* test is adequate to identify the level of significance of relationships between variables. Therefore, after obtaining the correlation coefficient, the significance of the relationship was identified by determining the level of significance or *p* value (Ravid, 2011).

The methods to collect data were a survey and archival sales records. According to Scott and Morrison (2005), conducting a survey with a single group of participants can identify relationships among variables in correlational research. For the independent variable (peer support), the study included the use of a survey, a validated instrument called the Learning Transfer Systems Inventory (LTSI; Holton, 2005), to a group of 84 employees. For the dependent variable (individual sales), data of the same 84 employees was collected from sales reports that were archival data already collected by the host organization. In order to support the validity of the information, the individual sales

report was doubled checked by their author (Lodico et al., 2010). Data was collected after the completion of a sales training program. Both the independent and dependent variables were identified for each participant, and correlations were computed using correlation as a statistical test.

Target Population, Sampling Method, and Related Procedures

The host organization for this quantitative study was a multinational Ecuadorian company that leads several franchises around the country. The Ecuadorian headquarters began operations in the 1970's and was represented by several franchises totaling more than 600 sales consultants nationwide. One of the most important objectives of the headquarters and the franchises was to improve the customer satisfaction. Also, a strategic priority of the company was to develop professional initiatives and training and performance solutions for the commercial area with the aim of increasing individual sales and performance (as indicated in the organization's 2013-2014 strategic plan).

The commercial area of the host organization managed a development plan for the sales consultants of the country. The company included a formal budget for training and performance improvement initiatives and was willing to participate in the study as a means of identifying current perceptions regarding training and to explore ways to improve practical activities of a training program called School of Sales and Performance. The training program consisted of five levels that lasted 60 hours each over four months. The complete program consisted of 300 hours completed over 20 months. From the first to the fourth levels, traditional classroom classes were dictated but during the last level, participants developed an application project whose objective was to propose a sales plan to be applied in the workplace.

According to CEPAL (2004), training and development programs of the corporate Ecuadorian sector supported the flexibility, career development, incentives, and stability of employees, and one of the most important expectations of companies in the industrial and services sectors, was to increase the level of practical activities of training programs. The School of Sales was an example of the inclusion of practical activities that were developed during a course called Project Plan for Sales. The course required workgroup activities based on common interest and objectives of their business units. The main requirement was to work in groups during and after classes in order to collect strategic information, identify valuable topics, and develop sales projects proposals to be applied in the organizations (as indicated in the organization's training program description). This section summarizes the target population, sampling, and recruitment process of this study.

Target Population

According to Cunillera (2012), the target population refers to a group presenting characteristics in common. For this study, the target population consisted of all the employees of the host organization who attended and supported the implementation of training and performance programs. A total of 652 employees completed at least high school education and presented common individual objectives such as fulfilling individual sales and obtaining minimum specific ratings in the customer satisfaction index. The participant pool of this study consisted of 240 full-time employees who completed the School of Sales Training of the company, passed the last level, and completed the course called Project Plan for Sales that required workgroup activities. Participants were Ecuadorian sale consultants with sales experience who presented

different levels of education in professional sales. Because all participants were Ecuadorian citizens, it was believed that all of them shared the same cultural dimensions described by the typology of Hofstede (1984).

Employees of the host organization were appropriate participants because they were accessible, were willing to participate, and did not represent a high investment in terms of time and financial resources to conduct the survey meetings. Moreover, participants worked in a company that has been promoting training initiatives for more than ten years.

Sampling Method

This study collected data from a group of employees who participated in a sales training program of a private Ecuadorian company. The total number of employees that attended to different training programs was 652, while the total number of employees that finished the sales training program and passed the 4th last level was 240. A random sampling technique was used to obtain a sample of 120 participants. According to Ravid (2011), for simple random sampling, "every member of the population has an equal and independent chance of being selected for inclusion in the sample" (p. 26). In other words, random sampling is a process to choose individuals with the same probability (Creswell, 2012; Cunillera, 2012; Morales, 2012). The Academic Coordinator of the sales training program provided a list of the 240 full-time employees who passed the last level of the program. Then, a three-digit number was assigned to each participant starting with the number 120 for the first, 122 for the second, and so on, for all 240 people. Then, using the randomizing function of Microsoft Excel, 120 participants were selected. Each of the 120 participants of the random list received an e-mail invitation letter and the

informed consent to participate in the study. After receiving the confirmation to participate, the LTSI was physically distributed at the host organization. Finally, data was collected and analyzed using the SPSS statistical software.

Sample Size

The sample size was chosen based on three criteria, the minimum quantity to conduct educational research, a statistical formula for small populations, and the representativeness of the population. Ravid (2011) indicated, "the majority of the research studies in education are designed to study populations by using samples that are representative of these populations" (p. 25) and emphasized that "A sample size of at least thirty cases or subjects is recommended in most studies in education" (p. 29). Fraenkel et al. (2011) confirmed this statement by suggesting a minimum of 30 participants when conducting a correlational research.

The sample size also considered the formula for finite, known, or small populations proposed by Morales (2012) in which there are three key factors: (a) confidence level (or risk to accept error), (b) variance (or estimated diversity of opinions), and (c) error margin (acceptable margin of minimal error). The minimum sample size was calculated according to the following formula:

$$n = N/(1 + \frac{e^2(N-1)}{z^2\ pq})$$

$$n = 240/(1 + \frac{0.10^2(240-1)}{1.96^2\ (0.50)(0.50)})$$

- N = is the number of the population. In this case, 240 participants completed the sales training program.
- z = is a measure of confidence level. A confidence level of 95% (α = .05) (or

the probability to failure 5 times per 100 times) corresponds to $z = 1.96$ of typical errors (Morales, 2012).

- e = is the accepted error margin of a study. For non-experimental studies, a 10% of accepted error is adequate (Morales, 2012). Therefore, for this study $e = 10\%$.
- p = is a measure of the proportion of answers in one category while q = is the measure of the proportion of answers in another category. The bigger diversity of answers is assumed when half of participants answer one category and the other half answer the another category so $p = q = .50$ where $pq = 0.25$ is a constant that hypothesizes that the sample has the maximum diversity of answers (Morales, 2012).

After implementing this formula, the sample size was 69 participants. In other words, to support a confidence level of 95%, a maximum error of 10%, and a maximum diversity of answers, al least 69 persons were considered to participate. Finally, Ravid (2011) indicated that when sample size increases, "it is more likely to be representative of the population, especially when the sample is randomly selected" (p. 28). Therefore, in order to increase the representativeness of the population, 120 participants were invited to participate.

Setting

The survey meeting took place in a classroom setting at the headquarters of the host organization located in Ecuador. The questionnaire was physically distributed three times according to the dates and times scheduled by the company. These dates did not coincide with schedules of regular training courses or job responsibilities of participants.

Therefore, participants were exclusively focused on answering the LTSI questionnaire.

Recruitment

The process of recruitment included the following activities:

1. The list of potential participants was obtained from the customer relationship management software (Sugar CRM) from the Academic Coordinator of the sales training program. The list included e-mail addresses.
2. All participants received an individual invitation and explanation letter.
3. Participants who agreed to participate in the study received an informed consent form via e-mail.
4. Participants were asked to return the signed consent form via e-mail or confirm the acceptance to sign the form the same day of the survey meeting.
5. After receiving the signed informed consent (or the confirmation to sign the form the day of the survey meeting), the parties agreed on dates to complete the survey.

Instrumentation

The questionnaire used in this study was the Learning Transfer Systems Inventory (Holton, 2005). The instrument was developed by Holton and Bates (1997) in the 1990s to identify a complete set of variables affecting learning transfer. The LTSI was subsequently updated and findings confirmed the validity (Holton et al., 1997), usability, confidence (Holton et al., 2000), and uniqueness to assess transfer dimensions (Holton et al., 2007).

The LTSI identifies individual and environmental variables that can promote or limit the transfer of learning (Holton et al., 2000). The current version of the LTSI

consists of a questionnaire of 48 questions that measure 16 factors classified into four scales (Holton & Bates, 2011), as shown in Table 3. The survey includes three items (questions) per variable. Trainees' characteristics scales include learner readiness and performance self-efficacy. Motivation scales include motivation to transfer learning, transfer effort-performance expectations, and performance-outcomes expectations, while work environment scales comprehend performance coaching, supervisor/manager support, supervisor/manager opposition, peer support, resistance to change, positive personal outcomes, and negative personal outcomes. Finally, ability scales include the opportunity to use learning, personal capacity for transfer, perceived content validity, transfer, and design (Holton & Bates, 2011). Motivation, environmental, and ability scales are the primary variables that can affect learning and individual and organizational performance, while trainee characteristics (performance self-efficacy and learner readiness) are secondary influences that can affect the motivation variables (Holton et al., 2003).

Additionally, Holton (2005) indicated that the LTSI facilitates the analysis of training specific scales and general scales. The training specific scales include learner readiness, motivation to transfer, positive and negative personal outcomes, personal capacity for transfer, supervisor support, supervisor sanctions, peer support, transfer design, perceived content validity, and opportunity to use. The general scales include transfer effort-performance expectations, performance-outcomes expectations, resistance/openness to change, performance self-efficacy, and performance coaching.

Table 3
Scales and Factors of the Learning Transfer Systems Inventory

Trainee Characteristics	Motivation	Work Environment	Ability
• Learner readiness • Performance self-efficacy	• Motivation to transfer learning • Transfer effort-performance expectations • Performance-outcomes expectations	• Performance coaching • Supervisor support • Supervisor opposition • Peer support • Resistance to change • Positive personal outcomes • Negative personal outcomes	• Opportunity to use learning • Personal capacity for transfer • Content validity • Transfer design

The researcher obtained the permission to use the LTSI from one of the authors of the instrument, Dr. Reid Bates. The agreement granted the researcher permission to use 120 copies of the instrument in English and Spanish version during the year 2015. The agreement required the research to send the tabulated data in order to provide the scoring or the corresponding scale of the 16 factors. The calculation of scale scores consists of summing the responses to each item in a scale and dividing the total by the number of items. The agreement also indicates that scorings cannot be shared by any means other than this study.

All questions of the instrument required a response based on the following criteria: 1 (*Strongly disagree*), 2 (*Disagree*), 3 (*Neither agree nor disagree*), 4 (*Agree*), 5 (*Strongly agree*). The Likert scale was treated as interval variables to perform the correlational research. According to Creswell (2012), Likert scale findings can be treated

as interval data. Hence, findings of the LTSI were analyzed as interval data. After the data collection, correlation analysis was applied to identify correlations between peer support and performance on individual sales. For this study, the independent variable (peer support) was measured as the mean of the questions related to this scale. According to Holton et al. (2007), the reliability coefficient for peer support is .83. Walliman (2006) indicated that the reliability refers to the level of consistency of the variables making up a scale or index. When the reliability coefficient approximates number 1, it means that the instrument is more reliable (Lodico et al., 2010). In other words, peer support is a reliable factor of the LTSI.

Data Collection

A group of working learners from an Ecuadorian company who attended the training and performance improvement program was analyzed in terms of peer support (the independent variable) and individual performance (the dependent variable). Two different sources with their respective processes were applied to the data: the LTSI survey and individual sales reports. According to Leeuw, Hox, and Dillman (2008), self-administered surveys are a common method to collect data in educational research because participants can have control over time, and the environment can be managed to assure calm to support reliable and consistent responses. For that reason, surveys were completed in a calm classroom setting. For the independent variable, the LTSI was applied according to the following steps:

1. The host organization confirmed the dates of the survey meeting, according to employees' schedules.
2. Participants were informed about three dates for survey meetings.

3. The researcher attended to the survey meeting, collected the informed consent forms, and explained the instructions to complete the survey.
4. Participants received a copy of the LTSI.
5. The researcher collected the surveys based on the time of delivery of each participant.
6. The LTSI surveys were transported and stored securely at all times.
7. The researcher tabulated the surveys using the Microsoft Excel worksheet.
8. According to the LTSI user's agreement, the tabulated survey was sent to the author of the survey for scoring, consisting of summing the responses to each item in a scale and dividing the total by the number of items.
9. The author of the LTSI sent back the digital document with a number that represented the mean score of the LTSI factors.
10. The researcher used the statistical software SPSS to obtain the Pearson's correlation. Findings of the LTSI were contrasted with archival data to identify if there is a significant relationship between variables.

Also, for the dependent variable, data was collected from existing documentation of the company. Lodico et al. (2010) indicated that archival data refers to "data that have already been collected" (p. 80). Historical information about sales performance and individual sales was available in the customer relationship management software of the host company. The information was collected based on the following activities:

1. The researcher sent a formal letter to the Development Coordinator of the Commercial Area of the host company requesting the last report of sales performance and individual sales.

2. The Development Coordinator sent the report to the researcher.
3. The researcher reviewed the list and chose the participants who confirmed their participation in the survey meeting.
4. The researcher sent the new list to the Development Coordinator to double check the indicator of individual sales.
5. The Development Coordinator sent back the list of individual sales of participants attending to the survey meeting.
6. The researcher assigned the three digit codes to each participant corresponding to the list of the LTSI survey (the same codes that were used to choose randomly the sample).
7. The researcher used the statistical software SPSS to obtain the Pearson's correlation.

Data Analysis Procedures

This study answered the null hypothesis by collecting data from the LTSI, by identifying the individual sales of participants, and by analyzing the results of the Pearson's correlation coefficient using the SPSS software version 20. The following steps summarize the procedures that supported the data analysis before and during the data analysis using the SPSS:

Procedures for Data Preparation and Tabulation

1. Participants were assigned with a code of three digits.
2. During the survey meeting, all participants wrote their corresponding codes in the LTSI questionnaires. During the survey meeting, participants answered 48 questions based on the following Likert scale: *1* (*Strongly disagree*), 2

(*Disagree*), 3 (*Neither agree nor disagree*), 4 (*Agree*), and 5 (*Strongly agree*).

3. Using Microsoft Excel worksheet, the answers of the LTSI were tabulated according to the codes of each questionnaire.
4. The Excel document was sent to the LTSI author who kept the information of the LTSI variables confidential.
5. The author of the LTSI identified numbers from 1 to 5 that corresponded to each of the 84 participants and represented a mean score of the 48 questions. Peer support was measured as a mean of the corresponding questions aligned with this variable.
6. The author of the LTSI sent back the tabulated data including the mean scores of the LTSI variables.
7. The coded information of the independent variable peer support, and the dependent variable individual sales was unified using Microsoft Excel Worksheet.

Procedures for Statistical Techniques and Significance Level

The indicators or mean scores of the independent variable, peer support, and the individual sales indicators were used to identify the level of correlation. The researcher chose Pearson's correlation coefficient and the significance level by analyzing statistical literature, confirming statistical procedures with one of the authors of the LTSI, and running the statistical tests in the SPSS. Pearson's is the most common coefficient used in correlation with Likert scales, and it is appropriate for measurements taken from interval scales, when the assumption is that the relationships between variables is linear and when the distribution of data is relatively normal (R. Bates, personal communication,

June 10, 2015). The procedure included the following steps:

1. The Excel document containing the coded independent and dependent variables was imported from SPSS version 20.
2. Using the options of the SPSS, Analyze, Correlate, Bivariate, and Pearson, Pearson's correlation analysis was conducted.
3. Using the options of the SPSS, Analyze, Descriptive Statistics, Frequencies, Charts and Histograms, the normality test the distribution of data was identified.
4. Using the options of the SPSS, Graphs, Chart Builder, and Scatter/Dot, the linear relationship between variables was identified.
5. The significance level was identified by analyzing previous results.

Also, to deepen the understanding of the relationship between variables, Spearman's correlation was also identified. Spearman's correlation coefficient is adequate when one of the measurements is taken from ordinal scales, and when relationships are more monotonic than linear (Bates, 2015; Walliman, 2006). Therefore, the value of Pearson's and Spearman's were compared to confirm the type of relationship between the independent and dependent variables.

Limitations of the Research Design

The research design supported the identification of the degree of relationship between variables. Nevertheless, correlational research does not determine causation between variables (Ravid, 2011). Hence, further research is suggested to reveal causation between peer support and individual sales. Besides, because the limitations of financial resources and the difficulty of access to Ecuadorian companies, this study was conducted

in just one company from the automotive industry. Therefore, the use of a limited sample limited the generalization of findings to all Ecuadorian companies and the population of Ecuadorian sales professionals.

Internal Validity

Internal validity refers to the degree to which gathered data answers the research question. According to Walliman (2006), "validity of research is about the degree to which the research findings are true" (p. 34). Walliman also indicated, "internal validity is the extent to which causal statements are supported by the study" (p. 34). Lodico et al. (2007) clarified this idea by indicating that internal validity involves confirming that an instrument measures what it intended to measure; Lodico et al. also emphasized that construct validity refers to the accurate measurement of a trait or ability. For that reason, a valid instrument "is a test that measures what is designed to measure" (Phillips & Phillips, 2007, p. 405).

According to Holton et al. (2007), the LTSI has been internally validated through the construct validity of all the variables influencing learning transfer, and is "the most comprehensive and most extensively validated instrument to access dimensions of the learning transfer climate that has been developed to date" (Holton et al., 2007, p. 414). The construct validity of the LTSI was built on factor analysis using a database of 8,000 participants from 20 countries representing different organizations, jobs, and industrial sectors (Holton & Bates, 2011). Therefore, because the LTSI accurately measures the variables that influence learning transfer, the research design and findings of this study support accurate evaluation of the proposed hypothesis.

External Validity

Besides the internal validity of the LTSI, the analysis of external validity is relevant to understand the generalization of this study. External validity is the extent to which findings can be generalized to populations, measures, settings, or contexts (Creswell, 2012; Walliman, 2006). External validity depends on drawing a representative sample (Russ-Eft & Hoover, 2005). According to Holton et al. (2007), the LTSI has demonstrated external or cross-cultural validity. The LTSI has been applied in different countries such as China, France, Germany, Jordan, Korea, Portugal, Taiwan, Ukraine, and the United States. The construct validity of the learning transfer variables is supported by studies conducted with participants from 20 different countries representing different organizations, jobs, and industrial sectors (Holton & Bates, 2011). Therefore, this study can be potentially applicable to other settings aligned with Latin American work cultures.

Expected Findings

According to Chen et al. (2006), work environment factors such as peer support can be critical for learning transfer in collectivist cultures. Moreover, Rogers and Spitzmueller (2009) concluded that people in a collectivist culture exhibit high intentions to transfer learning. The research hypothesis of this study was answered in terms of justifying the relevance of including peer support activities when implementing training programs in Latin American work settings. Peer support has been identified as a relevant factor affecting learning transfer. Because this study was conducted in a collectivist Latin American culture, the expected result of this study was to identify a significant relationship between peer support and performance in terms of individual sales at the p =

<.01 level. In other words, the expected result was to reject the null hypothesis and accept the alternative hypothesis that stated that there is a relationship between peer support and performance on individual sales among a group of sales consultants who participated in a training program in a South American work culture.

Ethical Issues

This section presents potential ethical issues involved in this study. A researcher's position statement and summaries of conflict of interest and ethical issues follow.

Researcher's Position Statement

Disclosing of relevant information and the absence of any sponsor financially supporting this study reduced the conflict of interest. The researcher works at the executive school that manages the corporate training initiatives of the host organization. With the aim of reducing potential conflict of interest, the researcher disclosed this information to the host organization and participants of the study, who knew they were not obligated to participate. Also, the researcher is the Director of the Executive School that provided the training program where the study was conducted. Nevertheless, the researcher did not participate in the design of courses, training sessions, or academic evaluations of the training program.

Ethical Issues in the Study

This study did not include situations that exposed participants to any harm. During data collection, there was not evidence that participants felt uncomfortable as a result of the survey meeting or questions of the LTSI. Further, the researcher detected no evidence of unconformity when collecting archival data of the host organization. Before

data collection, no evidence indicated that the host organization felt uncomfortable with the recruitment process. Nevertheless, the ethical issues of this study dealt with the protection of confidentiality of participants. The host organization granted the permission to conduct the study, and the academic coordination of the program provided the contact information of participants who received an invitation to participate in the study and signed the informed consent forms. Participants were aware of their voluntary participation, confidentiality of information, and protection of identity. In order to protect the anonymity, an exclusive code was assigned to each participant; during the survey, identifying information was not collected. The surveys were kept locked in a cabinet at the office of the researcher while the electronic file containing the tabulated data and coded identifiers was protected with a password and saved on the personal computer of the researcher.

Chapter 3 Summary

This chapter summarized the alignment between the research problem and hypothesis with the methodology, data collection, and data analysis procedures. Training and performance specialists need to optimize learning transfer and improve evaluation processes of training programs aligned with organizational outcomes; specialists need to learn from the literature to satisfy this necessity (Salas & Cannon-Bowers, 2001). This study supported the understanding of a learning transfer variable affecting performance in a different context through the identification of the relationship between peer support and individual sales.

Data collection and data analysis procedures supported the identification of the relationship between peer support and individual sales. Pearson's correlation was used to

analyze the correlation and the level of significance of the relationship between these variables, and Spearman's correlation was used to compare the significance of correlations and identify the most accurate relationship between them.

CHAPTER 4. DATA ANALYSIS AND RESULTS

Introduction

Based on the hypothesis that guided this study, this chapter will report on the descriptive data and correlations derived from the data that was collected. The purpose of this study was to determine if there was a relationship between peer support and performance on individual sales among a group of sales consultants who participated in a training program in a South American work culture. This study tested two hypotheses:

H_1. There is a relationship between peer support and performance in individual sales among a group of sales consultants who participated in a training program in a South American work culture.

$H_Ø$. There is no relationship between peer support and performance in individual sales among a group of sales consultants who participated in a training program in a South American work culture.

To test these hypotheses, data collection included the application of the LTSI and the analysis of existent documentation. Both sources of information were reviewed and analyzed three times before and after introducing data into the SPSS statistical software. Then, descriptive and correlational statistical options were calculated to obtain and analyze data and report results. This section includes a description of the sample, the results based on the null hypothesis and assumptions to use Pearson's correlation, and a summary of the chapter.

Description of the Sample

The sample size was chosen using simple random sampling, as described in Chapter 3. The response rate in this study was 70%. The recruitment process included a total of 120 invitations to participate in this study. One hundred percent of participants who received the invitations and consent forms confirmed their participation. Nevertheless, after conducting the survey meetings, a total of only 84 participants with two to 20 years of experience in sales attended the survey meetings and completed the LTSI. Participants' demographics are shown in Table 4.

Table 4
Participants' Demographics

Demographic Variable	Category	Sample (n = 84)	
		Frequency	Percentage (%)
Gender	Female	39	46%
	Male	45	54%
Age	26-35	33	39%
	36-45	40	48%
	46-55	10	12%
	56-65	1	1%
Main goal of training program	Personal growth/self improvement	46	55%
	Upgrade skills for current job	11	13%
	Acquire new skills for current job	25	30%
	Preparation for new career	1	1%
	Required to attend by employer	1	1%

Summary of the Results

Pearson's correlation was used to test the null hypothesis and identify the relationship between peer support and individual sales. The independent variable, peer support, was measured using the LTSI. This instrument measured peer support using a Likert scale: 1 (*Strongly disagree*), 2 (*Disagree*), 3 (*Neither agree nor disagree*), 4 (*Agree*), and 5 (*Strongly agree*). The numbers from 1 to 5 represented the mean score of the questions that comprised this variable. The dependent variable, individual sales, was identified using archival data and represented the average of units sold in a period. A significant relationship was found between peer support and individual sales among a group of sales professionals who attended to a sales training program in a Latin American work culture; therefore, the null hypothesis was rejected.

Detailed Analysis

Table 5 displays results according to the null hypothesis and the analysis of key factors required for Pearson's correlation. Chen and Popovich (2002) indicated that the interpretation of Pearson's correlation to test hypotheses depended on some assumptions. The authors argued that the use of Pearson's correlation is meaningful when the distribution of variables is normal, when the relationship between variables is linear, and when data is normally distributed about the regression line.

Descriptive Statistics

According to George and Mallery (2012), descriptive statistics are useful to understand the distribution of variables. Descriptive statistics for peer support and individual sales are shown in Table 5.

Table 5
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
Peer Support	84	1.00	5.00	3.82	.81	-.870	.263	1.030	.520
Individual Sales	84	2.13	22.64	8.70	4.00	.642	.263	.610	.520

Linearity of Variables

The scattergram in Figure 3 shows the graphic correlation between peer support and individual sales.

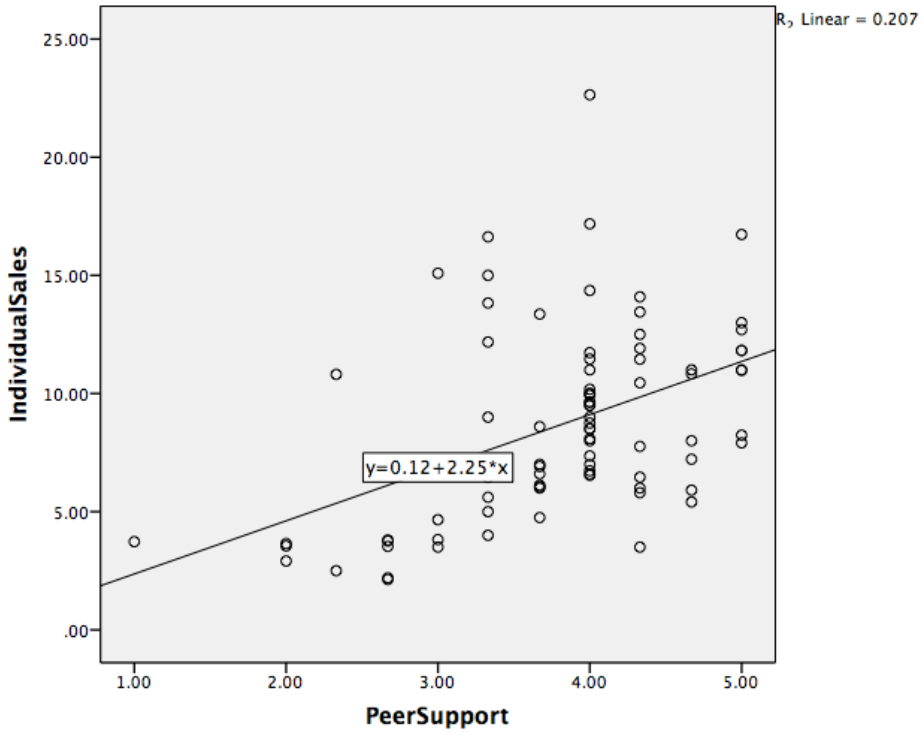

Figure 3. Correlation of variables.

According to Ravid (2001), a scattergram or scatterplot "is a graphic representation of a correlation between two variables" (p. 114). Ravid indicated that a "pattern that goes from the bottom left upward to the top right" (p. 114) is typical of a positive correlation. Although not all the points shown in Figure 3 were perfectly aligned with the regression line, the pattern showed that several points were near the line.

Correlation

Table 6 shows the Pearson's coefficient correlation between peer support and individual sales.

Table 6
Pearson's Correlation Between Peer Support and Individual Sales

		Peer Support	Individual Sales
Peer Support	Pearson Correlation	1	.456**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	54.532	122.569
	Covariance	.657	1.477
	N	84	84
Individual Sales	Pearson Correlation	.456**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	122.569	1327.698
	Covariance	1.477	15.996
	N	84	84

** = Correlation is significant at the 0.01 level (2-tailed).

According to Rumrill (2004), "Correlation coefficients range between –1 and +1, with zero representing no relationship and coefficients closer to −1 or +1 representing stronger relationships between variables" (p. 256). Pearson's correlation was analyzed

based on the strength of the correlation. According to Ravid (2011), "Coefficients between .00 and .33 would be defined as low; coefficients between .34 and .66 would be considered moderate; and coefficients between .67 and 1.00 would be considered high" (p. 120). Results in Table 6 indicate that Pearson's correlation between peer support and individual sales is a positive and moderate correlation of 0.456 with a level of significance of 0.000. This analysis used the level of significance or *p*-value of 0.01. Despite Pearson's correlation, Spearman's Rho correlation was also calculated in order to compare results and identify the most adequate relationship between variables. The results of the Spearman's correlation are shown in Table 7.

Table 7
Spearman's Correlation Between Peer Support and Individual Sales

			Peer Support	Individual Sales
Spearman's rho	Peer Support	Correlation Coefficient	1.000	.459**
		Sig. (2-tailed)		.000
		N	84	84
	Individual Sales	Correlation Coefficient	.459**	1.000
		Sig. (2-tailed)	.000	
		N	84	84

** = Correlation is significant at the 0.01 level (2-tailed).

Chapter 4 Summary

The results presented in this chapter indicated that the correlation between peer support and individual sales was moderate and positive; therefore, the directional hypothesis was supported. Pearson's and Spearman's correlation coefficients were

significant. The analysis of data led the researcher to reject the null hypothesis in this study. Chapter 5 presents an interpretation of findings, summarizes limitations, provides an analysis about how findings relate to previous studies, and presents recommendations for future research and practice.

CHAPTER 5. CONCLUSIONS AND DISCUSSION

Introduction

Learning transfer is a matter of concern for training and performance specialists and researchers. This study analyzed the relationship between peer support and individual sales. Previous research confirmed that learning transfer studies could be useful to comprehend how learning can affect performance (Holton, 2002), and suggested the necessity to test the LTSI in different cultural contexts (Holton et al., 2007; Martin, 2010). Also, the literature indicated that work environmental factors are key variables for collectivist cultures (Chen et al., 2006). One of the most important environmental factors affecting learning transfer is peer support (Grossman & Salas, 2011). The purpose of this study was to explore the relationship between peer support and performance on individual sales among a group of sales professionals who participated in a training program in a South American work culture. Pearson's correlation coefficient was used to determine the relationship between peer support and individual sales.

The objective of Chapter 5 is to discuss and interpret results presented in Chapter 4. This section includes a summary of results, and a discussion according to Pearson's correlation assumptions and the correlation of variables. This chapter also includes a discussion of results based on findings of previous literature, the limitations of the study, implications for practice, recommendations for future research, and conclusions of the study.

Summary of the Results

The following alternative and null hypotheses were proposed in this study:

H_1. There is a relationship between peer support and performance in individual sales among a group of sales consultants who participated in a training program in a South American work culture.

$H_Ø$. There is no relationship between peer support and performance in individual sales among a group of sales consultants who participated in a training program in a South American work culture.

The hypotheses of this study examined a learning transfer variable of the LTSI, peer support, and individual sales of a group of sales consultants. Peer support refers to the degree to which peers support and reinforce the application of learning in workplaces (Chiaburu & Marinova, 2005; Holton et al., 2007; Holton et al., 1997; Holton et al., 2003; Hua, 2013). This variable explains the level at which peers mutually identify and implement opportunities to apply learning, encourage each other, and appreciate the use of skills learned in training (Holton & Bates, 2011). Results of testing the null hypothesis indicated that there is a positive, moderate but significant relationship between peer support and individual sales among a group of sales consultants who participated in a training program in a South American work culture. The LTSI measured peer support using questions that identified the extent to which peers identify and implement opportunities to transfer new competencies and encourage or expect the use of skills. The questions also identified the degree to which peers can overcome obstacles that limit the use of skills and the level to which peers demonstrate interest for the application of new skills (Holton, 2011). The instrument measured peer support using a Likert scale: 1

(*Strongly disagree*), 2 (*Disagree*), 3 (*Neither agree nor disagree*), 4 (*Agree*), and 5 (*Strongly agree*). The mean of the scale score for peer support was close to 4 (M = 3,82). Hence, participants perceived that the mutual identification of opportunities, support, and encouragement to transfer learning influenced the application of knowledge and skills in the workplace.

Discussion of the Results

This discussion of the results presents the interpretation of findings according to Pearson's correlation assumptions of normality and linearity, and an interpretation of correlational results between peer support and individual sales as shown in Table 6.

Assumptions of Pearson's Correlation

The use of Pearson's correlation was justified by the assumption of normality of distributions and linearity between variables (Chen & Popovich, 2002). Parametric tests such as Pearson's correlation are adequate when the distribution of the dependent variable is relatively normal, while non-parametric tests are adequate when the distribution is not normal (Statsoft, 2013). A normal distribution presents many mid-range values and few extreme values, which means that the distribution of data is symmetric around the mean. George and Mallery (2007) considered that "many naturally occurring phenomena produce distributions of data that approximate a normal distribution" (p. 155) and indicated that skewness measures the deviation of the distribution concerning symmetry while the kurtosis measures the peakedness of the distribution. The findings of descriptive statistics shown in Table 5 indicated that though the distribution of data was not perfectly symmetrical as the normal distribution (which presents a value of zero for skewness and kurtosis), the skewness and kurtosis values of

variables were not large. In other words, distribution of data of peer support and individual sales approached a normal distribution.

The second assumption to use Pearson's correlation coefficient was the linearity between variables. Pearson's correlation identifies the level of proportion or the linear relationship between variables that can be modeled by a straight line called the regression line (Statsoft, 2013). Also, Ravid pointed out that a "pattern that goes from the bottom left upward to the top right" (p. 114) is typical of a positive correlation. The scattergram in Figure 3 indicated a positive relationship between peer support and individual sales. Although not all the points shown in the scattergram were perfectly aligned with the regression line, the pattern showed that several points are near the line.

Correlation of Peer Support and Individual Sales

Results of the correlational analysis of this study indicated a moderate and positive correlation between variables. The Pearson's correlation $r = 0.456$ ($p = 0.000$) shown in Table 6 falls in a moderate correlation between peer support and individual sales. Also, the level of significance refers to the probability that the relationship between variables occurs by chance from sampling error (Alreck & Settle, 2004; George & Mallery, 2012). The level of significance (or *p*-value) $p = 0.000$ means that there is a 0% probability that results occurred by chance. Because the *p*-value $p = 0.000$ was significant (George & Mallery, 2012), the null hypothesis, that there is no a relationship between peer support and performance on individual sales among a group of sales consultants who participated in a training program in a South American work culture, was rejected. Therefore, the correlation analysis indicated that there is a positive and moderate relationship between peer support and individual sales ($r = 0.456$, $p = 0.000$).

Additionally, the Spearman's Rho correlation $r = 0.459$ ($p = 0.000$) shown in Table 7 also falls in a moderate correlation between peer support and individual sales. Spearman's Rho is a non-parametric correlation that does not require the estimation of population parameters such as the normal distribution, does not assume linearity between variables, and is used when one of the continuous variables is converted into a set of ranks or ratio scales (Chen & Popovich, 2002). The Spearman's coefficient was only 0.003 higher than Pearson's correlation. These results indicate two implications. The first one is that Spearman's coefficient presented the same level of correlation as Pearson's correlation, that is, a moderate and significant correlation between peer support and individual sales. The second implication is that Spearman's higher correlation could suggest that the relationship between variables is more monotonic than linear. According to Chen and Popovich (2002), linearity implies a description of a linear interdependence between the dependent and the independent variables, while monotonic relationships indicate that variables move together, in the same or opposite direction, in a non-linear form. Nevertheless, the relationship between peer support and individual sales could have been interpreted as monotonic if one of the variables were measured on a ratio scale. This study considered two continuous variables, which means that Pearson's correlation coefficient was adequate to determine the correlation between peer support and individual sales (Chen & Popovich, 2002; Ravid, 2011).

Discussion of the Results in Relation to the Literature

This section presents a discussion of the results presented in Chapter 4 based on the learning transfer systems framework and on the findings of previous literature about peer support and learning transfer, peer support and individual performance, training and

learning transfer, and individual sales. The discussion also includes a section about peer support and cultural contexts.

Learning Transfer System Framework

The conceptual model that guided this study was the learning transfer system (LTS). The LTS proposed a systemic perspective that presents the work environment variables (peer support, supervisor support, feedback, and openness to change) that influence learning transfer on individual performance (Holton et al., 2000). In addition, Holton et al. (2000) refined the LTS and created the LTSI instrument that assessed individual perceptions of transfer regarding different individual behaviors resting from learning experiences. The LTSI identified specific variables, such as peer support, that affected specific training programs; the LTSI also identified general variables that affected general training experiences. According to Holton et al. (2000), respondents of the LTSI are asked to think about specific training programs when they answer the questions that identify the level of peer support. In other words, the LTS framework suggested that behaviors of individuals affect learning transfer and individual performance, while the LTSI proposed that the measurement of peer support is adequate when training programs are specific.

The participants of this study attended a sales training program and participated in activities that included peer support before, during, and after classes. One of the indicators that the host organization used to measure performance of participants was individual sales. The objective of this study was to identify the relationship between peer support and individual sales. The results shown in Table 5 indicated that the mean score of peer support affected learning transfer. Also, the correlational findings shown in Table

6 confirmed that peer support has a positive and moderate influence on individual sales (an individual performance indicator). In summary, findings of this study confirmed that peer support influenced learning transfer and individual performance, as indicated by the LTS and the LTSI. In addition, the LTS framework indicated that the learning transfer variables can affect performance over different levels: learning, individual performance, and organizational performance. The LTS also indicated that individual performance can be affected by learning and also can affect organizational performance. Although the analysis of training, learning experiences, and individual performance was beyond the scope of the objective of this study, findings and related literature could confirm a potential connection between training, learning transfer, and performance. The following subsections expand upon these conclusions.

Peer Support and Learning Transfer

This study measured peer support using the LTSI from a group of sales professionals who attended a sales training program in a Latin American work culture. Peer support refers to the extent to which the support from peers influences the transfer of learning (Chiaburu & Marinova, 2005; Holton et al., 2007; Holton et al., 1997; Holton et al., 2003; Hua, 2013). Previous literature confirmed the positive and direct influence of peer support on learning transfer (Grossman & Salas, 2011). For example, Yaghi, Goodman, Holton, and Bates (2008) conducted a study to validate the LTSI in Jordan and concluded that peer support was significant to applying learning into the workplace. Also, Holton et al. (2003) compared responses to the LTSI among different North American organizations. For peer support, the authors obtained a mean of 3.59 for nonprofit organizations, 3.40 for public organizations, and 3.34 for private organizations.

Holton et al. (2003) concluded that within the scales of peer support, "the nonprofit organization was significantly higher than public and private organizations" (p. 468); the researchers further concluded that the relationship between peer support and learning transfer was significant.

The findings of this study also show a significant influence of peer support. The mean score of peer support obtained in this study was 3.82, as presented in Table 5. This result indicated two key implications. First, this mean score confirmed the direct relationship that exists between peer support and learning transfer and indicated that participants who responded to the LTSI agreed that peer support perceived during the sales training program influenced the application of sales learning into their workplaces. The second implication is that this study (conducted in a Latin American work culture) revealed that peer support was significantly higher than the results obtained in the study conducted by Holton et al. (2003) in North America.

Peer Support and Individual Performance

The understanding of the effect of learning from training on individual performance is essential to improve learning transfer systems and organizational performance (Holton et al., 2000). The LTS framework indicated that learning can affect individual performance, and the review of literature confirmed this connection. Conducting research to determine the relationship between learning transfer and performance (Holton, 2002) is a suggestion that supported this study. Previous literature indicated that peer support had a high and positive influence in learning transfer and performance and suggested the implementation of cooperation and support initiatives among employees (Moreno et al., 2010). Particularly, Martin (2010) indicated that

trainees who supported each other could demonstrate better performance. Also, Dayaram and Fung (2012) and Shaw, Duffy, and Stark (2000) indicated that activities such as work groups or team learning (which imply peer support) can affect organizational performance. This study is aligned with previous research because findings identified a significant relationship between an environmental variable and an outcome of the LTS. The correlation analysis presented in Table 6 confirmed that there was a positive and moderate relationship between peer support and individual sales.

Training, Learning Transfer, and Performance

The findings shown in Tables 5 and 6 are aligned with the LTS framework, while the characteristics of the training program that participants accomplished before participating in this study are aligned with previous literature. The LTS identifies the variables that affect the transfer of learning. The LTS also indicates that the outcomes of performance initiatives such as training programs are learning, individual performance, and organizational performance. For instance, training is a strategic activity that supports the improvement of learning and human resource development (Park & Jacobs, 2011). Also, the LTSI diagnoses and evaluates the effect of learning from training because this instrument measures the learning transfer variables that affect specific and general training programs (Holton et al., 2000). The findings of this study confirmed the LTS framework. First, based on participants' perceptions during the sales training program, a significant relationship between peer support and learning transfer was identified. And second, the correlational analysis indicated a positive relationship between peer support and individual performance.

In addition, research indicated that training initiatives are significantly associated with effectiveness and performance (Glaveli & Karassavidou; 2011; Park & Jacobs, 2011). Glaveli and Karassavidou (2011) reviewed previous learning and performance literature in order to analyze the effect of training and concluded that training could produce positive effects on performance when organizations implement formal, long-term and career-related training and offer supporting conditions. Participants in this study attended to a formal and long-term training program that was aligned with their sales roles. The sales training program required the completion of five levels during two and a half years and included supportive activities during the last level. The characteristics of the training program could also affect the findings presented in Chapter 4, although a deeper analysis was beyond the limits of this study.

Besides the characteristics of training programs and the organizational conditions, individual factors and behaviors also affect learning and performance. For example, Wilson et al. (2002) analyzed perceptual factors of training and concluded that self-efficacy can influence the application of new learning and sales performance. Demographics of the sample shown in Table 4 indicated that a similar proportion of women (46%) and men (54%) perceived that the main goal of training was self-improvement followed by the acquisition and upgrade of skills to apply to their workplaces. Therefore, the viewpoints of the participants in this study coincided with those in previous studies that indicated that training could affect self-improvement, the transfer of new skills into workplaces, and individual performance.

Individual Sales

Based on the LTS framework, individual sales are an outcome of the learning transfer process. Particularly, this is an individual indicator of performance and the dependent variable of this study that referred to the average number of units sold in a period. Sales are a tangible indicator of organizational performance that can be traduced into profit (Phillips & Phillips, 2007) and can be improved by training initiatives. Sales training programs can influence individual sales performance and sales quantity and quality when the objective of training is to improve sales indicators (Kumar et al., 2014; Zoltners et al., 2012). For example, Wilson et al. (2002) concluded that learning transfer influenced sales performance, while Sonnentag and Volmer (2010) indicated that work group-related activities of training could improve individual performance. Participants in this study attended a training program whose objective was to improve participants' knowledge and skills and improve their sales performance. Findings shown in Table 5 indicated that the mean of individual sales was 8.70 (SD = 4.00) with a minimum of 2.13 and maximum of 22.64 units sold. The results of testing the hypothesis of this study indicated a moderate and positive relationship between peer support and individual sales. This result indicates that individual sales of professionals were influenced by the peer support they perceived during a sales training program.

Peer Support and Cultural Contexts

Findings of this study are aligned with the characteristics of the work culture in which the investigation took place. Holton et al. (2003) considered that peer support could be a good predictor of learning transfer in organizations that value collaboration and team culture. This study was conducted in Ecuador, a country that presents the

second highest level of collectivism. Ecuadorians respect collaboration and group decisions, value training to improve skills, and feel comfortable with workgroup training programs (Hofstede et al., 2010). Moreover, collectivist societies present a high motivation to apply new learning (Hofstede et al., 2010; Rogers & Spitzmueller, 2009). For that reason, Dartey-Baah (2013) indicated that group-based training is ideal for collectivist cultures. Therefore, a significant mean score of peer support was expected according to the characteristics of the collectivist cultural context in which this study was conducted, and the work group activities that participants accomplished during training.

The mean score of peer support obtained in this study ($M = 3.82$) was significantly higher than the mean scores of peer support obtained in a study conducted by Holton et al. (2003) in the United States, a country that presents the highest level of individualism, a cultural dimension contrary to collectivism (Hofstede et al., 2010). Holton et al. (2003) examined the learning transfer system characteristics using a sample of 4,562 responses from North American organizations and reported significant mean scores of peer support for non-profit, public, and private organizations ($M = 3.59$ versus 3.40 and 3.34, respectively). In summary, the comparison between peer support results of this study and the investigation conducted by Holton et al. (2003) confirmed that peer support is significantly higher in the Ecuadorian collectivist culture than in the North American individualistic culture.

Limitations

This section summarizes the limitations of this study based on the sample size, potential response bias, methodology, and limitations of resources.

Sample Size

The sample size for this study consisted of 84 learners who presented experience in sales and attended a sales training program in a South American work culture. The sample size was adequate to conduct an educational study (Ravid, 2011) and accomplished the number for small populations (Morales, 2012). Moreover, the sample size was higher than the minimum number of 69 participants obtained from the calculation of the small populations formula. Nevertheless, although the sample size was adequate to conduct a correlational study, larger samples are ideal to generalize results to larger populations when they are randomly selected (Creswell, 2012; Ravid, 2011). This study cannot be generalized to larger populations of employees working in activities different from sales or other productive sectors.

Response Bias

There is the possibility that participants in this study could have responded with bias. According to Villar (2008), response bias refers to the factors that can affect participant's accuracy to respond and produce an over- or underestimation of results. In other words, response bias represents the possibility that the responses of participants do not reflect the perceptions of the population (Creswell, 2012). In this study, participants responded to the LTSI that used a Likert Scale: 1 (*Strongly disagree*), 2 (*Disagree*), 3 (*Neither agree nor disagree*), 4 (*Agree*), and 5 (*Strongly agree*). According to Richardson (2012), participants can present a tendency to agree with questions of the survey or a tendency to choose extreme response categories. Moreover, according to Nicholls (2006), when participants respond to Likert scales, a phenomenon called *pseudoneglect* can affect participants' responses. Pseudoneglect is the tendency "to

increase the salience of categories on the left relative to those on the right, causing a deviation to the left to balance the left and right sides of the scale" (Nicholls, 2006, p. 1027). Responses of participants could have been affected by the tendencies to agree with the statements of questions or to choose extreme criteria or options on the left of the scale.

Research Methodology

Pearson's correlation was used to test the null hypothesis of this study. According to Rumrill (2004), a theory-based hypothesis is a proposition that suggests the direction of variables, a condition that is necessary but not sufficient to determine causality. In other words, this study only determines the existence of a relationship without predicting a causal relationship between peer support and individual sales.

Implication of the Results for Practice

This section emphasizes the importance of peer support activities when analyzing, designing, implementing, and evaluating training and performance initiatives, especially when the objective of training is to promote learning transfer and influence individual performance. The interpretation of findings, as discussed in the section of results in relation to the literature, indicated that peer support can be more significant for learning transfer in collectivist cultures than individualistic cultures. This significant difference means that when performance specialists design, implement, and evaluate training and performance initiatives for Latin American work cultures, peer support characteristics and activities should be taken into account to promote learning transfer. In addition, the positive and moderate relationship between peer support and individual sales obtained in

this study suggested the necessity to implement activities that require peer support and collaborative efforts to improve the accomplishment of sales objectives.

Recommendations for Further Research

The results of testing the null hypothesis of this study confirmed a moderate and positive relationship between peer support and individual sales among a group of sales professionals who attended a training program in a Latin American work culture. Findings also indicated that the effect of peer support over learning transfer is more significant in a collectivist culture than in an individualistic culture. Nevertheless, these findings are limited by the lack of generalization and the integration of multiple learning transfer variables that could affect the level of significance of this study. Therefore, the application of the LTSI using a larger sample is recommended, as well as the integration of other variables that may affect the transfer of learning and individual sales.

Previous literature confirmed that peer support could influence motivation to transfer (Kirwan & Birchall, 2006) and reduce poor climate (Martin, 2010), especially when employees present several years of working experience (Petty et al., 2000). Literature also indicated that peer support could be negatively affected by poor supervisor support (Hawley & Barnard, 2005), and the differences of cultural contexts (Holton et al., 2003). Also, more research about the effect of culture and environmental factors is suggested (Noe, 2000). Therefore, more research about the interactions of supervisor support, motivation to transfer, years of trainees' working experience, and different cultural contexts could be useful to understand how peer support influences learning transfer.

In addition, more research about the factors and activities that define and promote peer support are relevant to understanding how training initiatives can be potentiated or limited in Latin American work settings. For that reason, causal-comparative studies could expand the knowledge of the organizational elements that affect peer support and learning transfer. The identification of other variables of the LTSI that affect learning transfer could be useful to understand how the learning transfer system manifests itself in a Latin American context. Also, quantitative and qualitative research would be useful to confirm the validity of the LTSI scales (Noe, 2000). Qualitative studies can strengthen the understanding about how trainees and employees perceive the environmental variables that influence learning transfer and performance.

This study confirmed a positive relationship between peer support and individual sales through an objective analysis of trainees' perceptions and sales indicators. However, this study did not include the analysis of other factors that influence individual sales, such as monetary incentives, sales process, hiring, trainees' previous experience, coaching, learning orientation, customer orientation, trainees' preferences, training contents, sales indicators, or performance management (Bell et al., 2009; Dong-Gil & Dennis, 2004; Kumar et al., 2014; Leach & Liu, 2004; Zoltners et al., 2012). Therefore, further research about variables that affect sales indicators is suggested to compare their level of importance with peer support and other organizational factors that affect individual sales.

Besides deepening the comprehension of variables that affect learning transfer and performance, the understanding of cultural dimensions is a topic for further research that can support the effectiveness of the LTSI and the interpretation of learning and

performance initiatives. Finally, from a training and performance viewpoint, more research in real organizational settings is suggested. Conducting studies in real organizational contexts could promote the use of research-based practices, support the collaboration between academia and management, and promote the improvement of organizational performance (Rynes & McNatt, 2001).

Conclusion

There is a moderate and significant relationship between peer support and individual sales among a group of sales consultants who attended a sales training program in a South American work culture. The LTSI mean score of peer support obtained from the sales professionals revealed that a positive learning transfer was perceived. The mean score for peer support also indicated that the significance of peer support is higher in the Latin American collectivist culture in which the study was conducted than in the North American individualistic culture. The sample size of this study limited the generalization of findings, while the research methodology did not imply a predictive relationship between variables. In addition, the study did not support the understanding of other organizational factors that influence learning transfer and individual sales. Therefore, further research is recommended using a larger sample size and analyzing more individual and organizational factors that can affect peer support and individual sales, especially in different work cultures.

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APPENDIX A. STATEMENT OF ORIGINAL WORK

Academic Honesty Policy

Capella University's Academic Honesty Policy (3.01.01) holds learners accountable for the integrity of work they submit, which includes but is not limited to discussion postings, assignments, comprehensive exams, and the dissertation or capstone project.

Established in the Policy are the expectations for original work, rationale for the policy, definition of terms that pertain to academic honesty and original work, and disciplinary consequences of academic dishonesty. Also stated in the Policy is the expectation that learners will follow APA rules for citing another person's ideas or works.

The following standards for original work and definition of *plagiarism* are discussed in the Policy:

> Learners are expected to be the sole authors of their work and to acknowledge the authorship of others' work through proper citation and reference. Use of another person's ideas, including another learner's, without proper reference or citation constitutes plagiarism and academic dishonesty and is prohibited conduct. (p. 1)
>
> Plagiarism is one example of academic dishonesty. Plagiarism is presenting someone else's ideas or work as your own. Plagiarism also includes copying verbatim or rephrasing ideas without properly acknowledging the source by author, date, and publication medium. (p. 2)

Capella University's Research Misconduct Policy (3.03.06) holds learners accountable for research integrity. What constitutes research misconduct is discussed in the Policy:

> Research misconduct includes but is not limited to falsification, fabrication, plagiarism, misappropriation, or other practices that seriously deviate from those that are commonly accepted within the academic community for proposing, conducting, or reviewing research, or in reporting research results. (p. 1)

Learners failing to abide by these policies are subject to consequences, including but not limited to dismissal or revocation of the degree.

Statement of Original Work and Signature

I have read, understood, and abided by Capella University's Academic Honesty Policy (3.01.01) and Research Misconduct Policy (3.03.06), including the Policy Statements, Rationale, and Definitions.

I attest that this dissertation or capstone project is my own work. Where I have used the ideas or words of others, I have paraphrased, summarized, or used direct quotes following the guidelines set forth in the APA *Publication Manual*.

Learner name and date	Ana María Novillo Rameix, April, 2015
Mentor name and school	Dr. Paul Hardt, School of Education

APPENDIX B. DEFINITIONS OF LEARNING TRANSFER VARIABLES

Scale Name	Scale Definition	Scale Description
Trainee Characteristics Scales		
Learner Readiness	The extent to which individuals are prepared to enter and participate in a training program.	This factor addresses the degree to which the individual had the opportunity to provide input prior to the training, knew what to expect during the training, and understood how training was related to job-related development and work performance.
Performance Self-Efficacy	An individual's general belief that they are able to change their performance when they want to.	The extent to which individuals feel confident and self-assured about applying new abilities in their jobs, and can overcome obstacles that hinder the use of new knowledge and skills.
Motivation Scales		
Motivation to Transfer Learning	The direction, intensity, and persistence of effort toward utilizing in a work setting skills and knowledge learned in training.	The extent to which individuals are motivated to utilize learning in their work. This includes the degree to which individuals feel better able to perform, plan to use new skills and knowledge, and believe new skills will help them to more effectively perform on-the-job.
Transfer Effort-Performance Expectations	The expectation that effort devoted to transferring learning will lead to changes in job performance.	The extent to which individuals believe that applying skills and knowledge learned in training will improve their performance. This includes whether an individual believes that investing effort to utilize new skills has made a difference in the past or will affect future productivity and effectiveness.
Performance-Outcomes Expectations	The expectation that changes in job performance will lead to outcomes valued by the individual.	The extent to which individuals believe the application of skills and knowledge learned in training will lead to recognition they value. This includes the extent to which organizations demonstrate the link between development, performance, and recognition, clearly articulate performance expectations, recognize individuals when they do well, reward individuals for effective and improved performance, and create an environment in which individuals feel good about performing well.

Scale Name	Scale Definition	Scale Description
Work Environment Scales		
Performance Coaching	Formal and informal indicators from an organization about an individual's job performance.	The extent to which individuals receive constructive input, assistance, and feedback from people in their work environment (peers, employees, colleagues, managers, etc.) when applying new abilities or attempting to improve work performance.
Supervisor/Manager Support	The extent to which managers support and reinforce the use of learning on-the-job.	This includes managers' involvement in clarifying performance expectations after training, identifying opportunities to apply new skills and knowledge, setting realistic goals based on training, working with individuals on problems encountered while applying new skills, and providing feedback when individuals successfully apply new abilities.
Supervisor/Manager Opposition	The extent to which individuals perceive negative responses from managers when applying skills learned in training.	This includes when managers oppose the use of new skills and knowledge, use techniques different from those taught in training, do not assist individuals in identifying opportunities to apply new skills and knowledge, or provide inadequate or negative feedback when individuals successfully apply learning on-the-job.
Peer Support	The extent to which peers reinforce and support use of learning on-the-job.	This includes the degree to which peers mutually identify and implement opportunities to apply skills and knowledge learned in training, encourage the use of or expect the application of new skills, display patience with difficulties associated with applying new skills, or demonstrate appreciation for the use of new skills.
Resistance to Change	The extent to which prevailing group norms are perceived by individuals to resist or discourage the use of skills and knowledge acquired in training.	This includes the work groups' resistance to change, willingness to invest energy to change, and degree of support provided to individuals who use techniques learned in training.
Personal Outcomes-Positive	The degree to which applying training on the job leads to outcomes that are positive for the individual.	Positive outcomes include: increased productivity and work effectiveness, increased personal satisfaction, additional respect, a salary increase or reward, the opportunity to further career development plans, or the opportunity to advance in the organization.

Scale Name	Scale Definition	Scale Description
Work Environment Scales		
Personal Outcomes-Negative	The extent to which individuals believe that if they do not apply new skills and knowledge learned in training that it will lead to outcomes that are negative.	Negative outcomes include: reprimands, penalties, peer resentment, reassignment to undesirable jobs, or reduced opportunities for further job or career development.
Ability Scales		
Opportunity to Use Learning	The extent to which trainees are provided with or obtain resources and tasks on the job enabling them to use the skills taught in training.	This includes an organization providing individuals with opportunities to apply new skills, resources needed to use new skills (equipment, information, materials, supplies), and adequate financial and human resources.
Personal Capacity for Transfer	The extent to which individuals have the time, energy and mental space in their work lives to make changes required to transfer learning to the job.	This factor addresses the extent to which individuals' workload, schedule, personal energy, and stress level facilitate or inhibit the application of new learning on-the job.
Perceived Content Validity	The extent to which the trainees judge the training content to accurately reflect job requirements.	This factor addresses the degree to which skills and knowledge taught are similar to performance expectations as well as what the individual needed to perform more effectively. It also addresses the extent to which instructional methods, aids, and equipment used in training are similar to those used in an individual's work environment.
Transfer Design	The extent to which training has been designed to give trainees the ability to transfer learning to job application.	The extent to which the training program is designed to clearly link learning with on-the-job performance through the use of clear examples, methods similar to the work environment, and activities and exercises that clearly demonstrate how to apply new knowledge and skills.

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