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This is to certify that the doctoral study by

Robert R. Bing

has been found to be complete and satisfactory in all respects, and that any and all revisions required by the review committee have been made.

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Walden University 2015

Abstract

Perceptions of Customer Service

Trainers Relating to Informal Workplace Learning Experiences

by

Robert Russell Bing

MEd, Colorado State University, 1976

BA, Chaminade College, 1973

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2015

Abstract

Promoting informal workplace learning to improve workplace learning and performance within a competitive business environment presents a challenge for customer service training managers within a large corporation. The purpose of the study was to determine which attributes of informal workplace learning experiences contributed to meaningful professional development and improved performance. Constructivism and experiential learning provided the theoretical foundations for this study. Conceptually, learning is mediated by the meaning learners attribute to it. The primary research question concerned how customer service training associates perceived informal workplace learning experiences as having meaningful impact on their overall professional development and work performance. An embedded single case study design was used for the study. Data were collected through the use of semi structured interviews of 6 customer service training associates who were selected through maximum variation sampling. Thematic analysis was applied to transcribed interview data. The following were foundational to improvements in learning and performance: (a) participating in work-based projects, (b) receiving feedback through coaching and peer collaboration, (c) associating learning with achieving desired project and professional development objectives, and (d) structuring work activities and support so as to facilitate learning. The study demonstrated that informal workplace learning is grounded in the purposeful integration of certain essential elements. Study results advance social change by contributing to improved learning and performance thus benefitting individual trainers and the customer service organization.

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Dedication

This study is dedicated to Jesus Christ and my family. The Lord has offered me the opportunity to pursue this degree for the purpose of serving others. At death's door, He returned me to life. It is an opportunity for which I am ever in His debt. As importantly, I dedicate this study to my loving wife, Dawn Marie Bing, without whose support, understanding, patience, and encouragement this study would not have been pursued or completed. The achievement of the study is as much hers as it is mine. The study is also dedicated to my mother, Pamela K. Barton, and in memory of my father, Robert N. Bing, Jr. At an early age, they instilled a love of learning and the value of being persistent in achieving my goals. Most importantly, they ingrained a deep respect for my Hawaiian heritage and the importance of *ohana* (family). Finally, I dedicate the study project to my son Michael C. Bing and in memory of my son Brendon K. Bing, and to my grandchildren, Aubriana K. Bing and Robert K. Bing. Together, they have taught me the lessons of repentance, acceptance, and grace.

Ua Mau ke Ea o ka Āina i ka Pono

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Beyond my family, I cannot fully express my gratitude to my committee chair, Dr. Claudia Santin. She exemplified the model of a supportive and caring scholar. To Dr. Santin: You are an extraordinary person, and it is not an exaggeration to state that completion of this project could not have been achieved without your guidance and support. The insightful questions and suggested improvements guided completion of this study.

Throughout the construction of my study, I also received invaluable guidance and suggestions from my second committee members, Dr. Michelle Bartlett and Dr. Earl Thomas, and from URR reviewers Dr. Sharon Brooks and Dr. Robert McClure. Their critique, comments, and guidance reflected their scholarship, were instrumental to my learning, and guided the construction of this study. Finally, I appreciate the guidance and detailed suggestions of Ms. Carey Little Brown for her review and editing of this study.

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Mahalo Nui Loa (Thank you very much)

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Section 1: The Problem

Introduction

An ever-changing and highly competitive business environment demands a high level of performance from organizations and their respective workforces. Companies must sustain high levels of performance to align, execute, and renew themselves in a manner that will give them a competitive edge (Keller & Price, 2011). In the opening of their book, Kotter and Rathgeber (2005) argued that companies adept at handling change will prosper, whereas those that treat change poorly will be at risk of not surviving. Given that change is inevitable, the capacity to adjust to change with deliberate focus and agility is imperative in today's corporate environment. Researchers have observed that organizational success is at least partially influenced by individual learning (Argote, 1999; Baxter, 2012; Hicks, Bagg, Doyle, & Young, 2007). There is a clear distinction between organizational learning and individual learning (Schwandt & Marquardt, 2000), although the latter is foundational to the former. It is, therefore, with individual learning in mind that organizational theorists focus on systems and structures designed to facilitate individual learning and the sharing of learning experiences (Keegan & Turner, 2001). The goal of individual learning in the workplace is to improve the performance of the organization through improved learning and performance by its workforce.

According to human resources documents, 70% of an individual's professional development should occur through participation in assigned work activities and projects The training division within the corporation that was the focus of this study set the same expectation for its trainers. Learning through work experiences has been termed *informal*

learning by a number of researchers (Berg & Chyung, 2008; Choi & Jacobs, 2011; Fenwick, 2008; Lohman, 2005; Marsick & Watkins, 2001). Although 60-80% of workplace learning occurs through informal methods (Marsick, 2006), the overriding question is the following: What types or attributes of workplace learning experiences will result in well-targeted learning and improved job performance for corporate trainers? Within the training division, there are questions as to whether or not job-relevant learning is occurring through mere participation in work projects. Understanding and unlocking the meaning of workplace experiences are essential to the learning process (Knowles, Holton, & Swanson, 2005). Engaging individuals in work experiences that align with learning outcomes they deem as meaningful can facilitate informal learning. The focus of this study was understanding what types and attributes of informal learning experiences contribute to learning and improved performance within the context of the training organization.

Learning from experience is a complex and multifaceted undertaking. Given the complexities of a work environment, there is considerable uncertainty that work activities alone will result in learning. Literature on the topic suggests that experience alone will not necessarily lead to desired learning outcome (Dewey, 1938; Grossman et al., 2009), especially when an individual performs in a patterned, nonreflective , and automatic manner (Argyris, 1982; Lohman, 2005). Learning from experience is neither easy nor automatic (Grossman et al., 2009). While there are many dimensions to the understanding of informal workplace learning, this study focused on gaining in-depth insights into the lived workplace learning experiences of corporate trainers. In this section, the problem is

defined, and evidence of the problem at the local level is presented. Additionally, the central research questions are specified, followed by a comprehensive review of literature relating to the problem. The section closes with a statement of the implications and a summary of the problem.

Definition of the Problem

Experience alone does not result in learning. The corporation in this study, with corporate offices located in Massachusetts, has the expectation that 70% of an employee's development will occur through work-based experiences. Company leaders, however, have not defined an approach concerning how this expectation is to be met. Leaders of the company anticipate that experience will naturally result in learning. They support the policy wherein an individual's development should occur at an approximate ratio of 70% through participation assigned work projects, 20% through a feedback from managers and peers, and 10% from formal training Without a prescribed program or approach, the company leaves it to individual business units to decide how the mandate that 70% of an associate's development should occur through assigned projects is to be executed. One of these business units is the training division, the target of this study, which serves a customer service organization with approximately 1,100 associates distributed throughout the United States and Canada. A director and three program managers oversee the training organization. Overall, there are approximately 25 trainers and training specialists reporting to three program managers. Physically, the training staff is dispersed throughout several U.S. states and Canadian provinces. Based on information received from training managers, the training staff has a vast array of backgrounds and

experiences. Most of the training staff came to the training unit as customer service representatives through voluntary transfer.

Within the customer service training organization, there is no consistent approach to implementing this corporate expectation. Training managers revealed that some trainers were assigned to projects in which they were coached and mentored. Other associates, however, were merely assigned to projects where they received little or no guidance, coaching, or feedback as to their performance. Some associates were assigned to projects that challenged them to stretch the boundaries of their knowledge and skills, whereas others were not afforded similar opportunities. Conversations with managers revealed uncertainty as to what types or attributes of assignment-based experiences would promote learning and improved job performance. Managers mentioned that there was no method or process in place to capture information to determine the degree, if any, to which learning and improved performance resulted from work-related experiences. The lack of a consistently applied process of work-based learning made it difficult to facilitate staff members' development in their respective teams.

In this study, I sought to address the problem of how to promote informal workplace learning such that trainers can effectively learn and improve their performance through participation in work activities and projects. In pursuing this problem, the purpose of this study was to determine which attributes of informal workplace learning experiences training associates perceive as contributing most meaningfully to their professional development and improved performance within their current and future roles. Without this understanding, constructing a viable plan to meet the expectation of 70% of staff development occurring through work-based learning experiences is, at best, a catch-as-catch-can process. Many of the trainers, as indicated by their managers, are subject matter experts (SMEs) who have chosen to pursue a training career path. While this gives them instant credibility with trainees, they usually do not enter their respective training roles with the requisite knowledge and skills related to how to deliver this knowledge or offer training in their areas of expertise. For these SMEs-turned-trainers, the expectation is that they will develop those requisite knowledge and skills through onthe-job experiences. Doing so, however, is very difficult even under the most favorable circumstances, because learning from experience is not a straightforward process (Day, 2010).

From Dewey, in 1938, through recent years, a number of researchers have cautioned against the expectation that learning will automatically result from experience (Beard & Wilson, 2010; Day, 2010; Dewey, 1938; Marlow & McLain, 2011). Merely exposing a person to an experience does not imply that learning will occur, nor does it necessarily result in improvements in performance. Senge (2006) held that people learn best from experience, but only when they can observe or receive feedback regarding the consequences of many of their most important decisions. He continued his argument by stating that when the consequences of an individual's actions are not assessed or when individuals do not receive feedback as to the effect of their actions, it becomes difficult to learn from experience. Informally, trainers and their managers openly note that there is little assessment or feedback in many training projects. When well-targeted feedback regarding one's performance is not forthcoming, then learning from that experience is minimally handicapped, if not altogether denied.

Training within a corporate environment is intended to improve operational performance and to enhance the capacity of the business to compete in an extremely competitive environment. Ineffective training is a waste of time and money (Williams, 2001). Further, any losses in productivity and increases in error rates due to inadequate training are additional cost burdens to companies. Learning is a primary strategy used by organizations to improve performance (Bates & Holton, 2004); however, research by Burke and Saks (2009) revealed "disappointing estimates" (p. 382) relative to the transfer of skills from training to use on the job. Some researchers (Bates & Holton, 2004; Hutchings, Burke, & Berthelsen, 2010) have attributed this failure, in part, to a lack of knowledge and experience on the part of trainers. Billett (2001a) noted that informal workplace learning had as its goal the development of knowledge and skills through guided learning strategies capable of being transferred to on-the-job performance. If trainers, therefore, are not afforded some level of structured activities, their learning may be impeded, thus impacting their training-related knowledge and skills.

Research regarding the impact of project-based staff development on workplace learning and performance is very limited, particularly when applied to corporate trainers. Allix (2011) observed that little is known about learning at work and the conditions that facilitate learning. Though work-based learning is gaining momentum among organizations as a means of staff development (Beckett, 1999) and much has been written about workplace learning, there is little evidence-based research indicating whether informal workplace learning promotes improved job performance by corporate trainers. Some researchers (Hicks et al., 2007; Hutchins et al., 2010) have explored how trainers learn and have found informal workplace learning approaches to be frequently used by trainers as a means of acquiring training-related information. These studies have not addressed what types of informal learning experiences customer service trainers have found most meaningful in promoting their professional development and improving their performance.

Rationale

Evidence of the Problem at the Local Level

An international corporation applies a 70-20-10 model of staff development. It is a model wherein 70% of development should occur through assigned projects, 20% of development should occur through a manager's feedback, and 10% of development may occur through formal training Learning, therefore, is largely of an incidental or informal nature. The condition of limited formal training does not appear to be an uncommon expectation. Lieberman (1995) wrote, "What everyone appears to want for students—an array of learning opportunities that engage them in experiencing, creating, and solving real problems, using their own experiences, and working with others—for some reason is denied to teachers" (p. 67). Lieberman was referring to formal training being limited to workshops, conferences, and projects. The point is that opportunities and alternatives for professional learning are often limited for educators and trainers alike. Subsequent to Lieberman's plea, some researchers (Cook, 2009; Steinert et al., 2006) have argued for more experientially work-based developmental strategies. Though managers expect that 70% of a trainer's development will occur through learning taking place through participation in work assignments, they are not specific as to how organizational units such as the training division should execute this policy. Following the corporation's expectation and example, the training division also applies the 70-20-10 model to staff development and has not defined a structured approach to implementing the policy. According to James (a pseudonym), a training manager, within the training division, there is an expectaton that staff will use work activities as learning opportunities (personal communication, November 3, 2010). Monroe, another training manager, confirmed James's point of view (personal communication, July 11, 2011). These and subsequent conversations with both managers revealed a lack of clarity as to what types or attributes of work experiences led to the acquisition of desired skill sets.

More fundamentally, they were of the opinion that very little learning of skill sets related to training design and development occurred through the performance of their daily assignments. It appeared as though trainers tended to get into a pattern of performing their respective roles and that these patterned behaviors served to impede the acquisition of new knowledge and skills. On occasion, they believed, trainers would pick up new teaching or development techniques from other trainers. While the managers found that some learning occurred through this form of learning, they were of the opinion that it was unreliable, with no assurance that what was learned would lead to improved job performance. Additionally, the managers estimated that most learning of this type was tactical and did not address an understanding of principles of adult learning, design strategies, evaluations, and the transfer of learning. These observations were somewhat of a surprise to James, who had expected trainers to gain greater insights into course design and development than they seemed to reveal in conversations. Both managers, however, admitted only a cursory understanding of the types of learning experiences and the attributes of those experiences that trainers found meaningful.

During another of our discussions, James expressed uncertainty as to how to assist the members of his team in furthering their skills sets by merely assigning them to develop training courses (personal communication, January 21, 2011). James concluded that learning through experience seemed to be insufficient for learning the technical aspects of course design and development. This was especially true when most, if not all, of the team lacked in-depth knowledge about design, assessments, and the transfer of training. James argued that people can learn from each other when they collaborate as a team. If the team has limited technical knowledge of course design and development, then learning is likely to be minimal. Both managers were very interested in carrying out the company policy that 70% of an individual's learning and development should occur through assigned projects. The overarching issue, however, was determining how to execute this policy. Doing so requires an understanding of the types of work-based learning experiences trainers find meaningful.

The problem addressed by this study was expressed not only by managers of the training organization, but also by training associates. Largely, trainers felt limited in their ability to execute their responsibilities due to lack of training-specific knowledge and skills. Wendy1 (pseudonym) had over 5 years with the training unit developing and delivering training. When she was asked about her background in designing training, she

was uncertain about what was meant by the term *design* (personal conversations, July 18-21, 2011). For her, course development involved constructing a PowerPoint presentation of key points and screen shots of computer software and finding customer orders that helped her to demonstrate how the software was to be used. While she did not think the training was particularly useful and wanted to learn more about developing effective training, she was unclear as to how to acquire information about developing courses. During our conversations, however, she did mention that she had discovered that learners did better on practical exercises after she demonstrated the steps involved in handling customer inquiries rather than merely talking about them. Based on Wendy's statements, some learning did occur through her on-the-job experiences; however, though she was looking for other learning opportunities to expand her training-related knowledge and skills, such opportunities were not available.

Jaimie (pseudonym), another trainer, explained that she would welcome opportunities to learn more about the design and development of training courses (Jaimie, personal conversations, July 18-21, 2011). She was aware of the company's policy that 70% of an associate's growth should occur through work-based assignments, but she found it difficult to learn by merely performing her day-to-day functions. Jaimie was a former customer service representative who had been transferred to the training team. With no formal training or background in the training field, she had learned to perform her role by observing and mimicking other members of the training team. In doing so, however, she did not have a foundation or a basis to determine if what she was observing was effective in promoting learning or not. Therefore, she used her best judgment to decide on the approach to use when teaching a class and hoped that learning would occur (personal conversations, July 18-21, 2011).

The experiences of both trainers demonstrated that participating in work-based projects did not necessarily result in meaningful learning. Both wanted to learn more about design and development but did not perceive that learning opportunities existed within their day-to-day activities. Though they were afforded the opportunity to develop courses, their focus was on completing the task in the fastest and easiest way familiar to them rather than viewing course development tasks as learning opportunities. Wendy's approach to developing and delivering training was to determine how job tasks were performed and then describe the steps and procedures to learners (personal conversations, July 18-21, 2011). Occasionally, she would show computer screen shots in explaining details of particular software. Wendy was highly skilled as a customer service representative. Therefore, her tendency was to rely on demonstrations and practical exercises as her instructional strategy. When asked if she thought her approach to instruction was effective, her response was that it probably could be a lot better but she did not know of a better way to teach the class.

These conversations with managers and training associates suggested that people do not automatically learn from work experiences and that there is a fundamental lack of clarity as to how to best promote work-based learning. The trainers interviewed expressed a deep interest in learning more about course design and development but perceived a lack of opportunity to do so when engaged in day-to-day work assignments. Both trainers commented that they tended to develop a pattern of developing courses and stuck to it. Their prevailing concern was completing the project, rather than actually promoting learning. Such concern is consistent with insights of Poell and van der Kroght (2006) that trainers were likely to act in patterned ways when developing programs. Managers recognized inconsistencies in the skill sets of individuals and wanted to implement uniformly the corporate policy that 70% of a person's learning should occur through assigned projects. Unfortunately, the question of how to do so remains largely unanswered. Managers were unclear as to what types of learning experiences were most meaningful to training associates and would yield the greatest impact in terms of improved job performance.

Evidence of the Problem From the Professional Literature

It is estimated that 60-80% of workplace learning occurs informally (Marsick, 2006; U.S. Bureau of Labor Statistics, 1996) through planned or unplanned on-the-job learning experiences. A study by Hutchins et al. (2010) revealed that approximately 80% of the trainers surveyed indicated that their knowledge of training design and development was gained through informal learning activities. The most frequently cited of these learning activities were on-the-job experiences, interacting with colleagues, and observing others. A trainer learns about training design and development by discussing them with colleagues, observing others teaching classes, and then applying what was discussed and observed in developing and conducting training.

Despite the prevalence of informal learning as a means of workforce development, Marsick and Volpe (1999) acknowledged that "we know little about how it can best be supported, encouraged, and developed" (p. 3). There is, therefore, much that needs to be understood and discovered about how informal learning actually works and how it is actualized in different organizational environments and conditions. In that there is much to be learned about informal learning, there are a wide range of oftentimes antithetical perspectives on the topic. For example, Marsick and Volpe (1999) stated that informal learning is "seldom consciously and critically examined" (p. 87),while Streumer and Kho (2006) noted that informal learning "is not possible without reflection" (p. 16), which suggests a conscious process rather than an unconscious one. It is within the context of the push and pull of ideas that Billett (2010) concluded that without "knowing more about how individuals engage in and learn through work" (p. 2), there can be little certainty as to whether or not the expectations of employers are realistic regarding professional development through informal workplace learning.

Informal learning strategies are widely practiced, yet it is also recognized that learning from experience is neither automatic nor simple (Grossman et al., 2009). For example, while Hutchins et al. (2010) recognized the extensive use of informal learning, the issue of whether or not informal learning strategies are effective in improving the job knowledge, skills, and performance of trainers was not addressed. Lohman (2005) noted that one of the possible results from experience is nonlearning, which occurs "when a person responds in routine ways, is too preoccupied to consider a response, or rejects the opportunity to learn" (p. 503). Learning does not necessary result from experience. Grossman (2011) proposed a framework for understanding the practice of teaching. Portions of this framework can be used to illustrate the difficulty of learning something as complex as training design and development through experience.

Within Grossman's (2011) proposed framework, there are three vantage points for viewing the practice of teaching. One of the perspectives is called *representation*, which refers to the descriptions, stories, narratives, and observations that make the work of practioners visible or known to others. The features of teaching conveyed or not conveyed in these representations have consequences in terms of the degree to which others gain a perspective on the practice of training. Grossman et al. (2009) noted that these "representations of practice, however, can vary significantly, both in terms of comprehensiveness and authenticity" (p. 2065). For example, in that trainers learn about training design and development through discussions with colleagues, what aspects of training design and development are discussed? What information is included in these discussions, and what is excluded? Are the contents of these discussions based on evidence-based practice or merely a colleague's opinion? These representations are never complete (Grossman, 2011), in the sense that much about the practice of training is not visible through observation or included in discussions between colleagues. The reasoning, for example, underlying a trainer's actions is invisible to a person observing the interaction between a trainer and the class. An individual, therefore, may have the experience of observing a colleague teach a class;, however, much of the complexity of the practice of teaching is occurring in the head of the trainer and not visible to the observer.

The fact that a person may have 5 or 10 years of work experience in training design and development does not imply that the person has acquired the knowledge and skills to design training programs that will effectively transfer learning acquired in a

training environment to the job. A person may have 1 year of experience repeated 10 times rather than 10 years of experience. Dokko et al. (2009) noted that knowledge and skills mediate the relationship between experience and job performance. Dokko et al. contended that work experience may improve performance but only on the condition that individuals possess the requisite knowledge and skills to perform and are afforded the opportunity to apply them. Thus, if trainers lack the knowledge and skills to design for training transfer, additional experience alone will not remedy the deficit. According to Hutchins et al. (2010), the failure of training to improve job performance may, in part, be due to a lack of knowledge and skills on the part of training designers to construct training interventions capable of impacting performance through the transfer of training. Further, it may be that the current reliance on informal learning methods such as experience, discussions, and observing others is insufficient to acquire the knowledge and skills to design for effective training transfer.

Lacking structured or intentional learning, the expectation is that mere participation in a training project will result in learning. This assumption is based on the premise that a person learns through experience and as a result will be better able to perform on the job. While many studies of experience and performance treat experience as a proxy for knowledge, the bottom line is that work experience improves performance only to the extent that certain conditions are attendant to that experience (Dokko et al., 2009; Jordi, 2011; Kolb, 1984). Marsick (2006) cautioned that people who learn informally may also find themselves not fully realizing what was learned from an experience and therefore may be inclined to repeat mistakes. The mere experiencing of work-based activities does not automatically lead to learning. Literature defining the conditions that must exist to promote the informal learning of corporate trainers is, at best, limited. Marsick and Volpe (1999) noted that "it is important to discover how informal learning actually works" (p. 3). It is to this end, of gaining a better understanding of how informal learning works within the context of the training organization that serves a large customer service operation, that this study was targeted.

Definitions

For the purposes of this study, the following terms are defined.

Formal learning: Formal learning is described as resulting from planned, structured, instructor-created courses that are institutionally sponsored (Crouse, Doyle, & Young, 2011). The U.S. Bureau of Labor Statistics of the U.S. Department of Labor (1996) has depicted formal training as one of two types of training methods. It defines formal training as (a) being planned in advance, (b) having a structured format, and (c) having a defined curriculum. It estimated that approximately 30% of workplace learning occurs through formal training methods. In this study, therefore, *formal learning* refers to learning that "results from planned, structured, instructor-led courses and programs that tend to be institutionally based" (Hicks et al., 2007, p. 62). An advantage of formal learning is that it can stimulate informal learning by improving the ability of participants to assimilate informal learning (Choi & Jacobs, 2011).

Informal learning: Informal learning may be planned or unplanned learning (Hicks et al., 2007) that occurs as a result of individuals making sense of experiences they encounter while engaged in work activities or projects (Choi & Jacobs, 2011).

Typically, informal learning is not structured, and learning is largely controlled by learners (Marsick & Watkins, 2001), as opposed to trainers. It is estimated that 60%-80% of workplace learning incorporates informal learning strategies (Marsick, 2006).

Incidental learning: Incidental learning is a form of informal learning that is an unintended consequence of participating in other activities, such as an on-the-job project, and is of such a nature that people are oftentimes unaware or unconscious that learning has occurred (Choi & Jacobs, 2011; Hicks et al., 2007).

Possible selves: Markus and Naurius (as quoted in Ronfeldt & Grossman, 2008) defined possible selves as "the ideal selves that we would very much like to become. They are also the selves we could become, and the selves we are afraid of becoming" (p. 42). As individuals assume and experiment with different roles, they form a professional identity that influences those roles they find meaningful.

Project-based learning: Project-based learning (PBL) refers to the theory and practice of using real-world work assignments on time-limited projects to achieve performance objectives and facilitate individual and collective learning. (DeFillipi, 2001, p. 5). Use of projects for both learning and task achievement is most typically associated with *action learning*, "which assumes people learn most effectively when working on real-time problems that occur in their own work setting" (DeFillipi, 2001, p. 5).

Provisional selves: Provisional selves "are temporary solutions people use to bridge the gap between their current capacities and self-conceptions of the representations they hold about what attitudes and behaviors are expected in the new

role" (Ibarra, 1999, p. 765). While the concept of provisional selves builds on the concept of possible selves, the two concepts are different.

Transfer of training: As to the transfer of training, Blume, Ford, Baldwin, and Huange (2010) suggested that it is composed of two dimensions: generalization and maintenance. *Generalization* is the extent to which knowledge and skills acquired in one setting (i.e., training) are used in another setting (i.e., on the job). The second dimension, *maintenance*, refers to the degree to which changes resulting from a learning experience persist over time. Frequently, transfer of learning is viewed in behavioral terms such that what can be transferred can be specified in behavioral terms. Caffarella (2002), however, suggested that it is much more complicated. The transfer of training requires the application of multiple forms of knowledge, within a specific context, and the capacity to integrate a variety of knowledge and skills to perform on the job.

Workplace learning: Workplace learning refers to a "process whereby people, as a function of completing their organizational tasks and roles, acquire knowledge, skills, and attitudes that enhance individual and organizational performance" (Hicks et al., 2007, p. 62).

Significance

The significance of this study resides in its focus on understanding the attributes of workplace learning experiences, as perceived by corporate trainers, that contribute to performance of their current and future roles within the training organization. In 1995, the U.S. Bureau of Statistics (1996) estimated that 70% of an employee's learning occurs through informal training strategies, which are unstructured and unplanned experiences

that are part of an individual's work activities. Then, in 2010, Marsick (2006) estimated that 60-80% of workforce learning occurs through informal learning. Therefore, over the past 15 years, informal learning has been the primary workforce development strategy employed by organizations. Yet, despite the persistent reliance on informal learning, Eraut (2004) advised that it would be a mistake to rely on informal learning as an effective and reliable means of acquiring job-related knowledge and skills. Being exposed to a work activity does not automatically result in learning, which is largely dependent upon how a person responds to a specific situation. For example, if the learning situation is routine and lacks meaning, if there are distractions diverting the learner's attention, or if a learner is more interested in sustaining current patterns of thought, then learning is less likely to occur (Lohman, 2005). Argyris (1982) suggested that people have theories-in-use that govern their actions. He noted that learning about the ineffectiveness of one's own theories-in-use requires one to be helped in realizing that the actions one deems to be competent are in actuality incompetent. The implication of both Lohman's (2005) and Argyris's (1982) arguments is that whether or not workplace learning occurs is largely determined by the perspectives and actions of the individual within the context of the work environment. Though informal workplace learning is widely practiced, there is much about it that remains unclear.

Trainers, like most workforce populations, rely primarily on informal learning strategies for professional development. Informal learning, however, is not a unitary strategy; instead, it has evoked a wide range of oftentimes antithetical points of view. Perspectives regarding informal learning are varied, thereby leaving it to practioners to determine the most meaningful or relevant approach that best serves the needs of their organization. Some models of informal learning place a stronger emphasis on intentional and goal-directed reflection than do other models (Meyer & Marsick, 2003). Marsick and Volpe (1999) characterized informal learning as not highly conscious, haphazard, and influenced by chance. In contrast, Billett (2002) argued that describing workplace learning environments as informal serves to "constrain understanding about how learning occurs through work" (p. 58). Instead, informal learning involves the structuring of workplace learning activities to align with the continuity of work practices. Given the divergence of perspectives, it is incumbent upon training organizations to decide which approach will best serve their needs.

From the perspective of the training associate, this problem is significant from several perspectives. First, Senge (2006) stated that people "with high levels of personal mastery are continually expanding their ability to create the results" (p. 131) they are seeking.. This study addresses the issue of how can informal workplace learning contribute to on-the-job learning and performance. Mastery, according to Senge (2006), is more than the acquisition of information; it is the capacity to produce desired results. Consider, for a moment, the impact of mastery upon a person's feelings of self-worth, accomplishment, and self-efficacy.

This problem is also significant because it gives training associates a voice in the construction of an eventual solution. Caffarella (2002) suggested that programs need to gain the support of various groups if they are to be successful in their implementation and outcomes. One of these groups is the learners themselves. Support from learners is best

gained through the delivery of meaningful and useful programs. A program is perceived by participants as meaningful to the extent that it is well presented and useful (Caffarella, 2002). As people engage in their current roles and assume new roles, they have a need to acquire new knowledge and skills to assist them in the execution of those roles (Ibarra, 1999). Workforce development programs are viewed as having greater meaning to the degree that they help learners cope in real-world situations (Wlodkowski, 2008). With an understanding of professional development within the context of current and future roles, a deeper understanding of what is and is not meaningful to individuals can be gained. Caffarella (2002) also held that program planners should possess a clear understanding of what they are developing and why they are developing the programs they intend to deliver. Again, the source of this understanding is the participants themselves.

Freire (1970) argued for the importance of giving people a voice in those issues that impact their lives. He went on to instruct that the role of educators—or, in this case, program designers—is not to impose their views upon learners but rather to understand their perspectives through dialogue. In giving a voice to those most impacted by projectbased learning, I sought to understand trainer perceptions relative to their roles, how they acquire knowledge and skills necessary to execute their roles, and what their visions of an effective project-based learning program are.

From the perspective of the training organization, this problem is also significant to an issue raised by Bartlett (2003) regarding the necessity for developing competencies and qualifications to be an effective trainer. He went on to comment that companies cannot afford ill-prepared trainers, given the need for a well-trained workforce in an increasingly knowledge-based economy. The message, he suggested, is that training and development left in the hands of ill-prepared trainers is "unacceptable and inappropriate" (p. 233). Ineffective training wastes dollars in terms of instructor time, the time of participants attending the training, employee time, and lack of increased performance that might have resulted from better training (Williams, 2001).

Several members of the training team were subject-matter experts (SMEs) who had joined the training team with little or no training background. Barlett (2003) used the term "accidental trainers" (p. 231) to refer to SMEs with limited training background. He argued that companies should not count on these SMEs when workforce development is a strategic focus within an organization. When SMEs are not afforded development support, they "may cause employees to feel demoralized because they cannot apply the skills on the job" (Williams, 2001, p. 92). When trainers lack the skill sets to effectively develop and deliver training, they, too, become frustrated and, over time, demoralized.

From the perspective of the business, this problem is significant because, as Keller and Price (2011) suggested, in order to survive the pervasive changes in the current economic and business environment, organizations must sustain high levels of performance to align, execute, and renew themselves more quickly than their competitors. To achieve success in today's challenging business environment, corporations must have the capacity to develop and execute staff development programs designed to improve workforce performance. It is with this sense of urgency that Schwandt and Marquardt (2000) suggested that the prime focus of businesses is to become effective learning organizations if they are to be competitive in the 21st century.
Without continual learning, execution, and adaptation, profitability is highly improbable. Schwandt and Marquardt (2000) were quite blunt in their projection that organizations needed to learn more quickly and adapt to rapid change or they would not survive the harsh economic realities confronting today's businesses.

The challenge for businesses is to determine how to develop a training staff with the capabilities of contributing to workforce performance. Hutchins et al. (2010), for example, observed that training professionals struggle to generate performance improvements as a result of their training efforts. In response to this disappointing lack of results, approaches to workplace learning are undergoing a rather swift and dramatic transformation (Boud & Garrick, 1999). Barnett (1999) argued that learning is an integral and inseparable part of work. Similarly, Senge (2006) noted that the most powerful learning comes from direct experience through a process of taking action and noticing the consequences of that action. It is to the end of improving workplace learning that projectbased learning offers an effective and flexible (Scarbrough et al., 2004) alternative to formal staff training. In the context of rapid business change, the role of organizational learning in general, and learning through project teams in particular, has been elevated to new heights (Keegan & Turner, 2001).

Guiding/Research Question

The purpose of this study was to determine which attributes of workplace learning experiences training associates perceive as contributing most meaningfully to their professional development and to improved performance within their respective roles. In keeping with this purpose, the primary research question was the following: How do customer service training associates perceive informal workplace learning experiences as having meaningful impact on their overall professional development and work performance? The following are subquestions stemming from this primary research question:

- What forms and attributes of informal workplace learning have contributed most to professional learning and performance improvement?
- Upon what basis or rationale are workplace learning experiences and context deemed to be meaningful?
- Specifically, how have workplace learning experiences and workplace environment contributed to professional learning and improved on-the-job performance?

Previous research related to corporate trainers and workplace learning is very limited. Hutchins et al. (2010) revealed that trainers learn through engaging in work activities, having discussions with internal professionals, reading books, and searching the Web for topics of interest. Other studies have indicated that informal workplace learning is used with a high level of frequency, especially when compared to formal learning strategies (Berg & Chyung, 2008; Hicks et al., 2007). Finally, limited past research has identified why individuals used particular approaches of workplace learning (Hutchins et al., 2010). None of these studies investigated the research questions being pursued by this study.

Review of the Literature

Workforce development through participation in work activities and projects is a highly relied-upon strategy by organizations. Therefore, forming an understanding of what attributes to incorporate into a program of work-based informal learning is foundational to developing and executing a well-structured program. To the end of establishing comprehensive understanding of the characteristics relating to an informal learning strategy, I sought to determine which attributes of informal workplace learning experiences training associates perceive as contributing most meaningfully to their professional development and to improved performance within their respective roles.

Researching the problem was an iterative process that began with the exploration of project-based learning and over time expanded to a host of other areas of inquiry. Early in the research process, the focus of project-based learning and the issues associated with it grew into experiential learning, action learning, self-directed learning, and collaborative learning. I concentrated the search on these areas to understand the benefits and limitations of project-based learning strategies within the workplace. Through further research, the investigation expanded to organizational learning, workplace learning, and informal workplace learning strategies. It was during this later stage of research that the real issues and problems surrounding informal workplace learning began to emerge. Not surprisingly, the wellspring of many of the questions and challenges of informal workplace learning was inherent in the process of workplace and experiential learning.

Theoretical Framework

The theoretical framework for workplace learning is rooted in the constructivist notion that learning is the process of constructing meaning, how people make sense of their experiences, and how knowledge is gained through interactions with one's environment (Hein, 1991; Illeris, 2011; Merriam, Caffarella, & Baumgartner, 2007; Sutinen, 2008; Vanderstraeten, 2002). A shift in perception occurs as people make sense of things for which they have an adequate amount of relevant experience (Canine & Cain, 2006). Hein (1991) noted that by following the path set forth by Dewey, Piaget, and Vigotsky, constructivists accept the premise that there is no such thing as knowledge that is independent of the knower. Knowledge is constructed by the learner through exposure to an array of experiences rather than some external truth to be discovered by the learner or imposed by an external authority (Marquardt, 2011; Simons & Rowland, 2011). At first glance, this may appear to be a distinction without a difference. Does it really matter if learning is the discovery of some external truth or the construction of knowledge by the learner? The short answer is yes. Epistemological differences dictate differences in pedagogy (Hein, 1991). Following a constructivist framework of learning, the task of facilitating learning is to afford learners the opportunity to engage in those experiences that will result in learning.

From a pragmatic workplace perspective, the emergent issue is what kinds of experiences promote learning and mastery that improve job performance. There are a number of perspectives under the banner of constructivism. Dewey's pragmatic approach to constructivism, called *transactional constructivism*, is one of these variations on a central theme of constructivism. Transactional constructivism maintains that "knowledge construed by an individual emerges in the transaction between the individual's activity and the environment" (Sutinen, 2008, p. 2). From the perspective of workplace learning, the concept of transactional constructivism is important because it brings into consideration the relationship between the environment and individual development. Learners create rules, mental models, and habits of action through experience and reflections on those experiences (Hegarty & Kelly, 2011; Nagowah & Nagowah, 2009; Sutinen, 2008). Through this interaction of individual and environment, meanings are constructed that influence a person's perception, learning, and actions (Ivers, 2012).

Constructivism is not a monolithic perspective relative to learning. Despite multiple approaches to constructivism, Hedin (2010) suggested that the basic characteristics of constructivist learning are the following: (a) learners are active participants in the learning process, (b) prior learning serves as the foundation for current learning, (c) interactions with others lead to further learning and understanding, and (d) the focus of learning is on real-world issues rather than abstract concepts. While all of these characteristics provide a foundation for understanding informal workplace learning, Fenwick (2000) suggested another attribute. From a constructivist perspective, learners "construct, through reflection, a personal understanding of relevant structures of meaning derived from his or her action in the world" (Fenwick, 2000, p. 248). Learners reflect on lived experiences, interpret them, and form generalizations that influence their thoughts and actions (Yoders, 2014). This is also consistent with the theory and practice of experiential learning as the "reflective construction of meaning" (Fenwick, 2000, p. 244). The outlined characteristics of constructivism parallel the principles of experiential learning. Another characteristic that serves as the foundation for workplace learning is the constructivist notion that prior learning is the foundational for learning and fundamental to Dewey's concept of the continuity of experience (Dewey, 1938). Continuity of experience means that every experience both is influenced by previous experiences of a similar nature and influences the quality of future experiences. In this manner, there is a continuity of how people experience things. If, for example, someone is criticized for making an error, he or she may feel upset and frustrated based on previous experiences of being rebuked for similar errors. Unless something is done to mitigate these feelings, the individual may act with defensive avoidance to be shielded from the responsibility of being expected to achieve a particular outcome (Argyris, 1993). Through this process, the current experience is influenced by past experiences and will serve to potentially influence future experiences of a similar nature.

Theoretically, therefore, constructivism and experiential learning provide the framework that is the foundation of informal workplace learning (Roberts, 2006; Yardley, Teunissen, & Dornan, 2012). Within both perspectives, learning is an active process in which learners interact with their environment and, in doing so, construct meaning from those experiences that guides their thinking and future actions (Yardley et al., 2012). Skill building, according to Klein and Riordan (2011), is most effective when occurring within a real-world context. It is this real context that provides meaning to the process of learning. The emphasis on understanding the meaning of experiences, as constructed by learners, is central to this study. Rogers (as cited by Roberts, 2006, p. 18)

postulated that learning occurs on a continuum from what is perceived as meaningless by learners to what they perceive as significant. Both constructivism and experiential learning place an emphasis on learning as an interactive process between the individual and the environment as a person constructs what is personally meaningful through a process of feedback and reflection.

Though informal learning is a widely used strategy for staff development, there are also words of caution raised in literature. Dewey (1938), a critical advocate of experiential learning, offered the caveat that "all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative" (p. 25). Some experiences, according to Dewey, are mis-educative and have the effect of impeding growth. Similar to Dewey's comments, Beard and Wilson (2010) noted that learning results from individuals engaging in an experience and reflecting on it. Without reflection, "experience will tend to merge with the background" (Beard & Wilson, 2010, p. 20) with other experiences and sensory input. Not all experiences lead to learning (Guthrie & Jones, 2012). Understanding that learning through experience, where learners engage in workplace activities, will not necessarily result in productive learning is foundational to understanding the problem addressed by this study.

Caffarella (2002), in discussing program development and planning, noted that program planners should base their planning on understanding two key concepts: (a) adults are not likely to engage in learning unless they find it meaningful and (b) the how, what, and why of adult learning is influenced by learners' various roles. Therefore, understanding what is meaningful to training associates and understanding how they perceive their respective roles are essential to developing an effective informal learning strategy that can be applied to their professional development.

Conceptual Framework

The effect of workplace learning experiences and the workplace learning environment on a person's learning and performance is mediated by the meaning learners (de Vries, & van de Grift, &Jansen, 2013; Guthrie & Jones, 2012) attribute to them. Figure 1 illustrates the conceptual framework for the research study. Informal workplace learning experiences provide the impetus for professional learning and performance improvement (Estepp, Roberts, & Carter, 2012). The attributes of informal learning experiences and the context in which those experiences occur are mediated by how they are perceived by training associates as meaningful to improving learning and performance. Not all informal learning experiences result in learning and performance improvements. Research has demonstrated that an individual's perceptions of the learning environment affect learning (Gijbels, Van De Watering, Douchy, & Van Den Bossche, 2006). The study, therefore, explored the perceived experiences, the meaning ascribed to those experiences, and the qualities or attributes of those experiences that contribute to learning and performance.



Figure 1. Conceptual framework for the study. This figure illustrates the conceptual framework of this study, wherein attributes of learning experiences and the learning context are mediated by the meaning learners assign to those attributes, thus impacting subsequent learning and performance outcomes.

In the data collection effort for this study, I concentrated on understanding the perceptions of training associates regarding their learning context and experiences. It was to the end of understanding the perceptions of training associates, within a specific context, that a case study approach using interviews as the primary means of collecting data was employed. Hancock and Algozzine (2011) suggested that case studies are well suited to understanding a phenomenon within a particular context.

Organizational Learning

Organizational success is inextricably linked to the capacity of groups and individuals within an organization to achieve a high level of performance. Achieving and sustaining a competitive business culture necessitate attending to the people-oriented

aspects of an organization (Keller & Price, 2011). Argote (1999) contended that the creation and transfer of knowledge are the bases for a company's competitive advantage. By embedding knowledge in the interactions between groups and individuals within an organization, the transfer of knowledge can be facilitated (Park & Jacobs, 2011). Embedded knowledge is transferable only under certain circumstances (Gadille & Machado, 2012). The process of transferring embedded knowledge is understandable when one considers that group learning refers to activities through which group members acquire, share, and synthesize knowledge into a collective outcome (Argote, 1999). Argote cited two reasons why group learning is vital to forming an understanding of organizational learning. First, groups are more frequently becoming forms of organizing and facilitating organizational learning. The second reason is that group learning involves social processes, such as information sharing, which are miniature replicas of those found at the organizational level. According to Argote (1999), it is imperative that groups acquire knowledge through collaboration and interaction among members. Additionally, Argote noted that group members tend to be more receptive to sharing information not commonly possessed by members of the group when individuals sharing information are viewed as being knowledgeable. Having knowledgeable members of a group facilitates group learning, which, in turn, facilitates organizational learning.

Schwandt and Marquardt (2000) made it clear that while organizational learning is more than the total of individual learning; individual learning is an essential condition for organizational learning. At the core of group and, ultimately, organizational learning is the learning and performance of the individual (Tahir, Naeem, Sarfraz, Javed, & Ali, 2011). When group members possess substantive knowledge and skills, the sharing of information and experiences may lead to changes in knowledge and performance. For group and organizational learning to occur, individuals must be able to transfer the knowledge and skills acquired through training to performance on the job (Weber, 2014). It is, therefore, with individual learning in mind that organizational theorists focus on systems and structures designed to facilitate individual learning and the sharing of learning experiences (Keegan & Turner, 2001). As previously mentioned, the demands placed on organizations require individual learning to be faster, more productive, and capable of converting learning to performance.

This study examined learning within an organizational setting where success was linked to the capacity of individuals to learn and apply what they learned to job performance. Thus, as learners decided what was meaningful to them and constructed their learning based on that decision, it was necessary that they contribute to organizational performance. Individual and organizational learning must be aligned and mutually compatible (Melton & Harline, 2013). Workers must be able to take what they have learned and apply it to performing on the job. To facilitate the linkage between learning and performance, corporate trainers learn to design and execute strategies that will facilitate the transfer of learning from a learning context to the job. Additionally, for group learning to occur within the training organization, trainers must view their colleagues as being knowledgeable and informed for meaningful collaboration to take place.

Transfer of Learning

The goal of workplace learning is to apply knowledge and skills acquired through training to on-the-job performance (Hoyt, 2013). For this reason, the transfer of learning is vital to individual and organizational performance. One of the factors essential to effective training transfer is the design and execution of training programs (Baldwin & Ford, 1988; Blume et al., 2010; Hutchins & Burke, 2007). Conversely, the failure to transfer is a "major problem" (Larsen-Freeman, 2013, p. 107). To impact job performance through individual learning, it is vital that knowledge and skills acquired on the job transfer from a training environment to the job. There are different definitions of the term *transfer of training*. It refers to applying the knowledge and skills acquired during training to the job (Burke & Saks, 2009). For the purpose of this study, the definition by Blume et al. (2010) was used. According to Blume et al. (2010), the transfer of training is composed of two dimensions: generalization and maintenance. *Generalization* is the extent to which knowledge and skills acquired in one setting (i.e., training) apply to another setting (i.e., on the job). The second dimension, *maintenance*, refers to the degree to which changes resulting from a learning experience persist over time. Learning that results from training rarely leads to increases in performance. Instead, changes in work performance occur when individuals are able to transfer the knowledge and skills acquired during training to the job. It is the on-the-job application of those knowledge and skills that leads to meaningful improvements in performance and ultimately to organizational learning (Blume et al., 2010).

Transfer of learning, however, presents an unexpectedly difficult challenge to improving individual performance and organizational learning. Butler (2010) made the point that the theoretical and practical importance of transfer could not be overstated. Despite the importance of training transfer, it presents a profound and persistent challenge to workplace performance. Burke and Saks (2009) noted "We continue to read disappointing estimates of trained skill use on the job" (p. 382-383). They cited a study wherein training professionals surveyed reported that less than 50 percent of the employees trained successfully transferred their knowledge and skills acquired during training to the job. Holton and Baldwin (2003) stated, "The most commonly cited estimate is that only 10% of learning transfers into job performance" (p. 4). They noted there is little empirical basis for this estimate. Nonetheless, whether the amount of transfer is 10% or 50% (Pollock, Jefferson, & Wick, 2015), it is still a low rate of transfer and a cause of concern for business and training managers.

A frequently cited model of training transfer, develooped by Balwin and Ford (1988), subdivided the transfer of training into inputs (training design, trainee characteristics, and work environment) and outputs (learning and retention occurring during training). Martin (2010) noted that "Proper design and delivery of a training program is a major contributor to the transfer of learning" (p. 521). One of the reasons why there were such lackluster results, from the transfer of training, is a lack of knowledge on the part of trainers (Baldwin & Ford, 1988). Hutchins et al. (2010) also suggested that a lack of knowledge on the part of trainers regarding evidence-based training transfer practices contributes to the relatively poor levels of training transfer.

Addressing this issue, Hutchins et al. (2010) commented that "what trainers know (and do not know) about the transfer of training, and how they come to know it, may be contributing to the root cause of low transfer rates" (p. 600). In a study, although 45% of the trainers responding to a survey reported using practitioner journals to learn about training transfer, they did so rarely (Hutchins et al., 2010). Additionally, they found research journals were referenced less frequently than were practitioner journals; a point that appears to confirm the suspicion expressed of researchers that corporate trainers lacked substantial knowledge of evidence-based training transfer methods. If trainers lack the knowledge and skills to design and develop training, then the impact of training on job performance and productive will be severely handicapped.

Workplace Learning

Evidence indicates that training, according to Argote (1999), may be counterproductive to improving productivity. A survey by the Customer Contact Council (Corporate Executive Board, 2006), of member organizations, revealed that on average 27% of a company's staff development resources were committed to employee training. This same survey revealed that executives of these organizations believed that training has a negative impact on the potential for increasing performance. Along this same line of thought, an article in the McKinsey Report (Gurdjian & Triebel, 2009) reported that many training programs do not return desired results because they to accurately target gaps in employees' skills. Gegenfurtner, Veermans, Festner, and Gruber (2009) summarized concerns regarding the efficacy of training by stating "Major concerns in human resource development (HRD) theory and practice are the failure of training and the low return on investment" (p. 403). Essentially, the knowledge and skills gained during training do not translate to improved job performance or increase productivity.

Employee training and development within the workplace are designed or intended to improve organizational and individual performance (Burke & Hutchins, 2008). But, as Blume et al. (2010) suggested "original learning in a training experience is rarely enough to render that training effective (p. 1066). Instead, they contended it is the positive transfer of training that leads to meaningful work performance and thus is the primary concern of executives examining organizational training efforts. When determining the effectiveness of training, executives are less impressed with the amount of learning that has occurred during training than they are with the impact of training on job performance.

Workplace learning is a process of acquiring the knowledge, skills, and attitudes necessary to perform organizational tasks and goals. While its purpose is to improve individual and organizational performance (Baert & Govaerts, 2012; Hicks et al., 2007), the "central role and significance of the self" (Billett, 2011, p.60) is indispensable to workplace learning. It is clear that workplace learning is purposeful, with goals and experiences structured (Billett, 1999) structured to improve organizational and individual performance. Unfortunately, much of workplace learning is unplanned, unstructured, and left to a random and accidental occurrence. According to Marsick and Watkins (2001), "When people learn incidentally, their learning may be taken for granted, tacit, or unconscious" (p. 26). Billett (1999) made the point that learning and its outcomes cannot be considered ad hoc or incidental, but rather are targeted opportunities to reinforce and

extend knowledge. Workplace learning, however, is much more than a random consequence of accidental, serendipitous events. Instead, it is structured (Billett, 2001b; Bingham & Davis, 2012). Minimally, learning in the workplace is guided by the activities, goals, and structures of the organization to increase performance, productivity, and competitiveness (Inman & Vernon, 1997) and, therefore, is not unstructured.

Trainer Development: Formal and Informal Learning

As previously noted, the expectation expressed by managers is that 70% of a trainer's learning should occur through engagement in assigned on-the-job projects. There is no structured process defining how this learning is to occur, what learning outcomes are expected, or how it is to be determined if learning occurred. Any learning, therefore, that does occur is largely incidental, which is unintended, unplanned, and unexamined learning wherein the learner is unaware that learning has occurred (Marsick & Watkins, 2001). While incidental learning does occur, it is important to note that experience alone does not necessarily lead to learning (Beard & Wilson, 2010; Dewey, 1955; Grossman et. al, 2009). Dodge (1998) argued that the lack of planning, intention, and reflection inherent in unintentional learning can lead to negative consequences. He suggested that within the workplace, "Negative unintentional learning is insidious" (Dodge, 1998, p. 112). Thus, the unstructured application of the 70-20-10 rule can lead to negative consequences as well as positive consequences.

Based on the work of Marsick and Watkins, Hicks et al. (2007) identified three forms of workplace learning: formal, informal, and incidental. Formal learning is planned, structured, and instructor-led programs sponsored by the organization. Typically, informal learning is not classroom-based, tends not to be highly structured, results from performing duties on-the-job, and "is the result of individuals' making sense of the experiences they encounter" (Choi & Jacobs, 2011, p. 241). Finally, incidental learning, which is a form of informal learning, refers to learning that occurs as a serendipitous by-product of engagement in some other activity. A person, therefore, is said to have learned incidentally when unintended and, oftentimes, unconscious learning occurs while participating in non-training work related activity. Under these circumstances, "people are usually unaware that learning is happening and it is generally unplanned and unexamined" (Crouse et al., 2011, p. 41). When learning is unintended and unexamined, there is the potential for learning to be counterproductive to the interest of both the individual and the organization.

Understanding the principles of training design and development are essential to the effective transfer of training and learning these principles and how they are to be applied does not occur through mere participation in a training project. But, acquiring an accurate understanding of these principles can be handicapped or impeded. While well intentioned, some trainers may learn practices and patterns of behavior, from more experienced co-workers, that are counterproductive (Billett, 2001a; Fenwick 2001) to effective training design and development. This aspect of staff development is a concern, particularly in light of findings by Hutchins et al. (2010) that trainers frequently depend on discussions with other internal trainers as a source of information.

When writing about adult learning Merriam (2008) noted: "The more we know about how adults learn the better we are able to structure learning activities that resonate with those adult learners with whom we work" (p. 93). In this statement, Merriam encouraged educators and trainers to pursue continued study and inquiry into adult learning and the strategies that will promote it to the end of better serving adult learners. Sagor (2010) reflected on the issue of what does it mean to be a professional(i.e., a professional educator or trainer). One of the qualities of a professional is attaining a high level of mastery in one's field that comes about only through years of preparation and learning. Sagor (2010) noted that lawyers are expected to know the law, doctors to know medicine, and educators know about learning. Corporate trainers should master the ability to analyze business needs, design effective learning interventions, and execute implement these interventions to facilitate the transfer of learning from the training environment to the job.

McBain (2004) suggested that training "is a key way to develop sustainable competitive advantage through human resources" (p. 23) and one of the most effective means of improving individual performance. For training to be effective, it must be well designed, which assumes that training developers have the requisite knowledge and abilities to design effective training capable of improving job performance. Wlodkowski (2008) noted that if adults have a problem experiencing success, their motivation to learning will diminish. If training is not well-targeted and well-designed to promote onthe-job success, adults will question the utility and relevance of the training they receive, thus reducing their motivation to learn. Just as effective instructional design can be a reliable means of creating effective instruction (Rowland & DiVasto, 2013), poor instructional design can impede it. Understanding the principles of adult learning, learner motivation, instructional strategies, and the transfer learning requires a depth of knowledge not typically acquired incidentally through participation in a project.

While trainers have demonstrated a preference for formal training, they nonetheless tend to rely on informal methods of learning to acquire information about training and the transfer of learning due to its accessibility (Hutchins et al., 2010). In doing so, they were less selective in choosing informal learning methods and sources of information that may have contributed to the poor rate of training transfer (Hutchins et al., 2010). Being less selective, trainers were influenced by opinions, fads, or trends unsubstantiated by empirical evidence. This lack of selectivity led them to execute ineffective training transfer strategies. Burke and Hutchins (2008) warned that "Unless grounded in a reasonable level of support, any performance improvement practice is likely to be fad-driven, resulting in spurious and inconsistent results" (p. 108). The complexity of the designing and developing training is frequently underestimated because it is perceived as being easy (Grossman et al., 2009). Design and development are not readily observable by others and, therefore, as being less complex than they are. The practice of professional domains such as traininginvolves the "orchestration of understanding, skill, relationship, and identity to accomplish particular activities" (Grossman et al., 2009, p. 2059).

A study by Hutchins et al. (2010) revealed that 80% of those trainers surveyed acquired their knowledge of training methods and practices through informal learning activities. Informal learning is based on a constructivist approach to learning, which presumes learning is a process of creating meaning by making sense of experiences (Merriam, Caffarella, & Baumgartner, 2007). With limited access to formal training opportunities, learning tends to emerge by interacting with others, working on challenging projects, and observing others (Hutchins et al., 2010). Under these circumstances the prospect of capturing learning acquired while working on real-world projects within the workplace and applying that learning to other projects is a practical and appealing alternative to limited formal training opportunities. Project-based learning offers an efficient and effective alternative to formal classroom-based instruction and is triggered by the need to close knowledge and performance gaps (Poell, Yorks, & Marsick, 2009).

Burke and Hutchins (2008) developed a transfer of training model that was consistent with and expanded the model of Baldwin and Ford (1988). One of the traits that influenced the transfer of learning was trainer characteristics, which referred to a trainer's "knowledge of the subject matter, professional experience, and knowledge of teaching principles (such as adult learning strategies) as important to supporting training transfer" (Burke & Hutchins, 2008, p. 114). Another factor influencing the transfer of trainingwas the design and delivery of a learning solution. The effective design and delivery of developmental interventions necessitates that trainers have the knowledge and skills to do so. Training design must ensure that the content and learning experiences of the training program align with job tasks and facilitate training transfer. Trainers must possess the knowledge and skills to design and deliver training solutions that lead to the acquisition of knowledge and skills and to performance on the job. A training staff that is highly skilled in training design and training transfer provides a competitive advantage for companies by stimulating organizational learning that is vital to success in a volatile economic environment. Typically, trainers rely on other internal trainers as sources of information (Hutchins et al., 2010) to acquire insights into design and development strategies that facilitate training transfer. By applying a constructionist framework, to the development of trainers within a corporate environment, it becomes evident that trainers construct solutions based on information perceived as meaningful and relevant to accomplishing their duties. The development of a PBL program, therefore, necessitates an in-depth understanding of their perceptions and preferences to construct an effective project-based learning strategy.

While there are advocates of incidental learning (Marsick & Watkins, 2001), so too are there advocates of goal-directed learning. Leonard (2008) revealed that establishing learning goals was particularly important to competency development. Talanquer, Novodvorsky, and Tomanek (2010) also suggested that goal-directed learning was vital to learning and the transfer of skills. The bottom-line is that the development of high-quality skills necessary for constructing effective training solutions and the transfer of learning are too important to be the accidental by-product of incidental learning. Organizationally, the challenge is to discover what attributes should be incorporated into a coherent, purposeful, and effective program of informal workplace learning.

Implications

It was the intention of this study to gain a greater level of understanding of how informal workplace learning can be supported, encouraged, and structured to facilitate professional development and performance. The study sought to understand informal workplace learning through the perceptual lens of customer service training associates who, it was expected, employed it as their predominant strategy for professional development. Given the intention to form an in-depth understanding the informal workplace learning perceptions of training associates, within a bounded context, by exploring their professional develop experiences, a single case study was used for the project.

There are several potential implications for this study. First, the study will add to the limited body of research relating to the informal workplace learning strategies used by corporate trainers to improve their knowledge, skills, and performance relating to their respective training roles. As previously noted, Marsick and Volpe (1999) observed that there is much to learn about how to support, engage, and promote informal workplace learning. They concluded "If there is to be a formal approach to supporting informal learning, it is important to discover how informal learning actually works" (Marsick & Volpe, 1999, p. 3). This study will also provide customer service training managers with greater insight to improve professional development and performance of their respective training teams. To understand the significance of the work-based experiences of customer service trainers, it is important to remember the constructivist framework, which emphasizes the role of individual choice in determining what and how they learn. aThese decisions are not the prerogative of employers or managers, but rather the prerogative of individual training associates. Discovering what strategies and practices are effective in promoting workplace learning, a theme raised by Marsick and Volpe (1999), furthered the understanding of what initiated and directed an individuals' learning in the workplace. Informal learning, argued Billett (2010) is "far from being fully understood" (p. 2). The conduct of work "that is salient and meaningful for individuals' sense of self and identity lies at the heart of effective work and learning" (Billett, 2010, p. 16). In workplace learning, the emphasis is on the experiences of the learner (Streumer & Kho, 2006). Entwined within a web of countervailing forces of every work environment is the individual. Discovering the attributes of informal learning experiences that trigger and mobilize the motivation to learn has the potential of improving individual and organizational performance. It is also anticipated that gaining insights into the relationships between the individual and the work context will add to the understanding of informal workplace learning.

Finally, there is verylittle, if any, peer-reviewed literature on the use of projectbased learning as a means of trainer development in a corporate setting. While some of the project-based literature centers on teacher education (Brescia, Mullins, & Miller, 2009; Lam, Cheng, & Choy, 2010), the dynamics of an educational system impacting the development of teachers differs from the development of trainers in a highly dynamic business environment. In today's world of business, rapid change and an extremely competitive environment have called attention to organizational learning through the implementation of project-based learning strategies (Keegan &Turner, 2001; Poell et al., 2009). This studywill provide additional insights into how corporate trainers perceive their experiences with project-based learning and how it impacts their current and future training roles.

Summary

A large corporation expects that 70% of an individual's professional development occur through participation in work assignments There is no guidance or direction as to how organizational units are to implement this expectation. The customer service training division, which was the target of this study, conveyed to training associates the corporate expectation that 70% of their professional development should occur through participation in work projects. This is an informal means of workplace learning, which accounted for 60-80% of all workplace learning (Marsick, 2006; U.S. Bureau of Labor Statistics, 1996). Despite the widespread use of informal workplace learning, much more needs to be understood as to how it occurs, how to support or encourage it, and how it should be implemented (Marsick & Volpe, 1999). The limitations of workplace learning are well documented in literature (Billett, 2001a; Fenwick, 2001), as workers may learn counterproductive processes, tactics, and techniques from more experienced co-workers. Workexperience does not necessarily result in learning or learning that is productive in the work environment.

Based on the framework of constructivism and experiential learning, the goal of workplace learning is to develop the knowledge and skills that can be transferred across situations and circumstance to improve organizational and individual performance (Billett, 2001a). It is, however, important to note that workplace learning is not only concerned with the acquisition of immediate skills, but also with the development of future competencies (Boud & Garrick, 1999). Workplace learning, as defined by Hicks et al. (2007) is a "process whereby people, as a function of completing their organizational tasks and roles, acquire knowledge, skills, and attitudes that enhance their individual and organizational performance" (p. 64). Although improved organizational performance is an intended outcome of workplace learning, at its core, workplace learning focuses on an individual's experiences and the meaning derived from them. Individuals are likely to construe the meaning of experiences in ways that are consistent with their goals and professional trajectories (Billett, 2006). Therefore, understanding how individuals learn through work activities is essential to deciding how to structure workplace learning experiences (Billett, 2001b).

This is an embedded single case study with the purpose of obtaining detailed descriptions of those informal workplace learning experiences that training associates perceive as contributing most meaningfully to their professional development. The next section examines the methods and procedures that were taken in the conduct of this study. Included in this section is a detailing of the research design, a description and justification regarding the selection of participants, data collection methods, and the process of data analysis.

Section 2: Method

Introduction

The purpose of this section is to discuss the research design, data collection, and data analysis procedures incorporated into the study. It begins by addressing how the research approach derived from the problem and the research question. Also included in this section are the following: a detailed description of the research design and rationale; participant selection and ethical considerations in the selection of and interactions with participants; a summary of data collection and data analysis processes; and a clarification of how the quality and integrity of the study's results were protected.

Research Design and Approach

The problem addressed by the study was how to facilitate informal learning within the training division so that trainers could effectively learn and improve their performance through participation in work activities. In response to the problem, this qualitative study was designed to answer the overarching research question of how customer service training associates perceive their informal workplace learning experiences as having meaningful impact on their overall professional development and work performance. The question is consistent with those pursued by qualitative studies. There are two dimensions to the question: (a) understanding how training associates perceive their workplace learning experiences and (b) understanding how those experiences have meaning about their professional development and work performance. Answers to the research question provide greater insight into informal workplace learning within the context of a customer service training organization of a large corporation.

From a constructivist perspective, learning is a process of constructing meaning through lived experiences. The premise of constructivism is the belief that learning begins as learners create diverse and multiple meanings of their experiences through perceptions, interpretations, and reflections (Creswell, 2009; Fenwick, 2000; Harasim, 2012). According to Henze (2008), knowledge does not exist independently of the learners who pursue it; rather, it is something that is constructed from the raw materials of experience. With meaning being created as people engage in and interact with the world, it is the task of qualitative researchers to use open-ended questions to uncover the meanings people derive from those interactions (Creswell, 2009). In doing so, they gain access to an understanding of the foundations of individual learning. Research has demonstrated that how learners perceive learning affects their capacity to learn (Gijbels, Van De Watering, Dochy, & Van Den Bossche, 2006). This study addressed this concern by seeking to identify the attributes of an effective informal workplace learning environment by first understanding the perceptions of training associates about their informal workplace learning experiences. Open-ended questions were used and were an effective means of discovering the meaning people ascribed to their experiences (Creswell, 2009).

Description of Research Design

The study employed a single embedded case study design in the tradition of qualitative studies that are interested in understanding how people interpret their experiences and how they find meaning in those experiences (Merriam, 2009). A qualitative case study is a research approach that facilitates in-depth inquiry into a

phenomenon within a particular real-world context (Baxter & Jack, 2008; Yin, 2009). A qualitative case study is a well-suited means of inquiry given the research question to be answered.

Rationale for a qualitative study. A focus of this study was understanding how training associates perceive their lived experiences relating to informal workplace learning and how they ascribe meaning to those experiences. At its nexus, Merriam (2009) viewed qualitative research as being "interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (p. 5). A characteristic of qualitative studies that is shared with this study is that they are experientially focused and are interested in how people interpret their lived experiences (Creswell, 2009; Merriam, 2009; Stake, 2010). Understanding the lived experiences of individuals is an essential ingredient of qualitative studies.

Besides understanding the lived experiences of study participants, another shared characteristic of this project and qualitative studies is an emphasis on understanding the meaning individuals ascribe to their experiences. Creswell (2009) suggested that people construct meaning from their experiences. Qualitative researchers, therefore, seek explore and understand the meaning of human experiences through the data they collect. A third characteristic common to this project and qualitative studies is that of understanding individual perceptions. Stake (2010) acknowledged that qualitative studies are personalistic in pursuing an understanding of different perspectives. A fourth shared characteristic is that qualitative studies are situational such that each context is unique in

terms of time and place (Stake, 2010). According to Merriam (2009), "Qualitative researchers are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (p. 5). The design and conduct of this study were consistent with the qualities of qualitative research.

Rationale for a case study. Yin (2009) defined a case study as an "empirical inquiry that investigates a contemporary phenomenon in depth and within it real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 18). In this qualitative study, the intent was to have training associates describe their real-world experiences with informal workplace learning. The phenomenon under investigation, therefore, was the experience of workplace learning within the context of a customer service organization of a large corporation.

A primary consideration when using a case study approach is the decision of whether the research will incorporate a single case or multiple case design (Yin, 2009). Baxter and Jack (2008) agreed by stating that "researchers must consider if it is prudent to conduct a single case study or if a better understanding of the phenomenon will be gained by conducting a multiple case study" (p. 449). Yin (2009) offered several rationales for using a single-case approach. One of those rationales was the use of a case study where the case represents a unique situation. If the environment in which the study is conducted is unique, then a single case study approach should be considered (Baxter & Jack, 2009). A single case study approach was selected for this study, as I sought to learn about a small group of training associates who were members of a customer service

training unit within a large corporation. The study occurred within a particular context in which all of the training associates chosen for the study were assigned to the customer service training organization within a large corporation. It was upon the rationale that the context of this study represented a unique situation (Yin, 2009) that a single case study was selected as part of the design.

Another design element was the use of an embedded approach, as opposed to a holistic approach. Each participant of the study constituted a subunit within the overall case. Baxter and Jack (2009) commented that if a researcher is interested in examining the same issue but exploring individual variations within it, then a single case study with embedded units should be considered. A "single-case study may involve more than one unit of analysis" (Yin, 2009, p. 50); thus, employing an embedded case study design was appropriate. Yin (2009) cited an example of a clinical services unit of a hospital serving a single organization while individual staff members are subunits within that organization. An embedded study was a design tailored for this study because it enabled the research to explore the informal workplace learning experiences of a small group of training associates who were part of the same training organization. Each participant constituted a subunit within the context of a single training organization.

Alternative Designs Considered

Before deciding on a case study approach to this research project, I considered several alternative designs. One of these designs was a descriptive survey designed to describe behavior and gather people's perceptions, opinions, attitudes, and beliefs about a current issue in education. The descriptions would have been summarized by reporting the number or percentage of persons reporting each response (Lodico, Spaulding, & Voegtle, 2006). This is a nonexperimental approach to research that does not neatly fall into the definition of qualitative or quantitative research. This approach was seriously considered because it is used to gather information regarding the perceptions and beliefs of people, which were the focus of this study. The reason it was not selected was because I I did not have the opportunity to interrogate the survey results to derive greater clarity and understanding of how participants perceived their lived experiences. Survey results could have been interrogated if a mixed methods approach had been used.

Mixed methods research incorporates both quantitative and qualitative data to develop a complete understanding of the research problem (Creswell, 2009; Lodico et al., 2006). Explanatory sequential mixed methods allow a researcher to refine the results of quantitative data through the use of qualitative interviews. In this manner, the "researcher might seek to explain the results in more depth in a qualitative phase of the study" (Creswell, 2012). Despite the flexibility of the mixed method approaches, they lack depth of inquiry into perceptions of lived experiences and the meaning ascribed to those experiences within a unique environment.

Another approach considered for this study was phenomenological research. Phenomenological research is a strategy of inquiry to identify the essence of human experiences about a phenomenon as it is described by participants (Creswell, 2009). According to Sokolowski (2000), phenomenology is "the study of human experience and of the way things present themselves to us in and through such experience" (p. 2). Moustakas (1994) made the point that empirical phenomenological research "involves a return to experience in order to obtain comprehensive descriptions that provide a basis for a reflective structural analysis that portrays the essences of the experience" (p. 13). While all of these elements had relevance to this study, the phenomenological design was rejected because of its emphasis on identifying the essence of human experiences. A phenomenological study is intended to synthesize the meanings and themes of experience into a unified statement of the nature of how people experience the phenomenological research is a composite description of the invariant essence of the phenomenon. In contrast, in this study, I sought to identify common themes among experiences without reducing them to a core essence.

Participants

The study involved participants of a large international company who were selected from various locations within the United States and Canada. From a population of approximately 25 trainers and training specialists, six were chosen for participation in the study. Purposeful sampling was used to select participants for the study. Merriam (2009) stated that purposive sampling is "based on the assumption that the investigator wants to discover, understand, and gain insight and, therefore, must select a sample from which the most can be learned" (p. 77). Another term for purposeful sampling is *criterion-based selection* (Merriam, 2009). According to Conceicão (2006), criterionbased sampling involves the selection of participants who meet predetermined criteria. Applying criterion-based sampling, all participants of this study met the following general criteria: (a) were members of the training organization which was the target of this investigation; (b) were interested in participating in the study and in describing their developmental experiences, their roles, and perceptions regarding informal workplace learning; (c) were to engage in an initial interview not to exceed 20 minutes, participate in a face-to-face in-depth interview of 60-70 minutes, answer follow-up questions via email; and (d) were willing to have their conversations recorded.

A form of purposeful sampling is maximum variation sampling, in which the researcher selects individuals based on widely varying characteristics or traits (Creswell, 2009; Merriam, 2009). Stake (1995), when addressing the issue of sampling, commented that "sampling attributes should not be of the highest priority" (p. 6). Instead, he argued that balance and variety are of primary importance. Based on a maximum variation sampling strategy, another set of sampling criteria were applied in the selection of study participants. First, there were three customer service training teams, with each reporting to a program manager and two individuals selected from each of the three teams. Secondly, the members selected from each of the teams were from different call center sites or locations. A third criterion was the length of service in the training organization. While all members selected had more than 1 year of experience with the training team, selection was also based on years of service with the training team, thus affording a diversity of tenure and experience. It was difficult to set precise criteria for tenure and experience without first collecting background information. Within each team, members with longer and less-than-typical tenure were selected. Thus, in selecting participants representing different program teams, locations, and tenure, it was expected that a participant sample with a range of experiences would result.

Number of Participants Selected

Groenewald (2004) suggested that researchers use their judgment to guide the selection of individuals who have experiences relating to the phenomenon being researched and who best serve the purpose of the research. As to the size of the sample, Merriam (2009) advised that it be determined by informational considerations so as to maximize the information being obtained. A typical qualitative research project limits the sample to a few individuals or cases to derive a more in-depth exploration of the phenomenon under investigation (Creswell, 2012). Moustakas (1994) mentioned that there are "no in-advance criteria for locating and selecting research participants" (p. 107). He argued that the essential criteria are that each participant has experienced the phenomenon, is willing to explore it, and is open to participating in an in-depth interview. The focus is not the number of participants but rather the process of obtaining detailed descriptions of experiences to understand them as perceived by the individual participant (Giorgi, 2009).

A sample size of six study participants allowed for variations in terms of team, location, and tenure while allowing for in-depth interviews. Yin (2009) noted that the typical criteria regarding sample size irrelevant. Similar to phenomenological studies, this case study was developed to obtain thick descriptions of lived experiences relative to the phenomenon being investigated, which was informal workplace learning. Groenewald (2004) stated that selecting a sample of two to 10 participants allows for in-depth interviews to capture rich descriptions. Selecting six participants, two from each program team, afforded a reasonable degree of replications (Yin, 2009) and variation to derive common themes from participants. I did not anticipate that I would have difficulty finding two participants from each team. Maximum variation was applied to the extent practicable within each team of three members.

Access to Participants

Gaining access to the participants began with obtaining permission to conduct the study from the vice president of human resources, who delegated that authority to the respective director of training. Once permission was received to proceed with the research project from the director, access to participants was obtained after gaining the approval of the program managers who supervised one of the three customer service training teams.

A meeting was held with each of the three customer service managers to explain the project and to obtain the names and contact information of their respective team members. During this meeting, the purpose and methods of the research were outlined along with the contents of the informed consent form. Additionally, an estimation of the time commitment that would be required of each participant was discussed, and the managers were afforded the opportunity to ask whatever questions they had regarding the project.

Initially, an email was sent to each manager requesting to set up a meeting to discuss the research project. Attached to the email was a copy of the informed consent form that was sent to participants who agreed to engage in the project. Also contained in the email was a brief statement of intent to request the names, contact information, locations, and tenure of trainers reporting to each of the managers. Following the email,

individual 30-minute telephone meetings were scheduled with the director and each of the managers through the company's internal internet scheduling software. During this meeting, the purpose and methods of the research were outlined, along with the contents of the informed consent form. Additionally, an estimation of the time commitment required of each participant was discussed, and each person had the opportunity to ask questions regarding the project. As anticipated, permission was received from each of the managers prior to any contact with members of their respective teams.

Establishing Rapport

Establishing rapport is critical for a successful interview. Building a relationship with participants of a qualitative study begins with the very first contact and is sustained throughout the course of the study. It implies getting along with each other, working in harmony with, conforming to, and having an affinity for one another (Seidman, 2006). Relative to qualitative research, rapport building is the capacity of the researcher to quickly create a relationship with the interviewee that is positive, relaxed, and mutually respectful (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). According to Gerogi (2009), abiding by commonly accepted civilities and demonstrating sensitivity to the person being interviewed is sufficient to establish a sense of openness and trust. Besides being an essential ingredient for effective relationship building, openness and trust are components of an ethical relationship between researcher and interviewee (Hewitt, 2007). Participants are more likely to talk freely, openly, and honestly when they: (a) feel comfortable in the presence of the researcher, (b) trust the interviewer, (c) are secure about confidentiality, (d) believe the researcher is interested hearing about and
understanding their story, and (e) when they don't feel judged (Mack et al., 2005). What can a researcher do to quickly establish an open, honest, and respectful relationship with the interviewee?

Developing a trusting relationship, between researcher and participant, is an indispensable part of any qualitative interview (Mack et al., 2005). Relative to my study, building trust began with the first contact that will be made via a Microsoft Outlook email to set up an initial meeting. The email detailed: the purpose of the meeting, what the research is about, why the individual was being asked to participate in the research, and an assurance that involvement in the project was voluntary (Rubin & Rubin, 2012).

Trust, according to Rubin and Rubin (2012), increases when potential participants see that they have something in common with the researcher. For this project I was also a member of the same training organization as the trainers who were selected for participation in the research and I had similar experiences in call center training . During the initial and subsequent meetings, but prior to the first interview, I built a sense of shared backgrounds and fostered a sense of mutuality by discussing everyday experiences with the potential participants.

In-depth interviews are an interactive process where the goal of the researcher is to transform a relationship with the interviewee from detached objectivity to a collaborative partnership. Seidman (2006) noted that some researchers argue that anything less than a full equal partnership between researcher and participant is "manipulative and reflects a male, hierarchical model of research" (p. 96). In contrast to this perspective, Seidman went on to suggest that the focus of attention needs to be the respondent and not the interviewer., Researchers, therefore, should reveal enough of themselves to facilitate a collaborative and respectful interaction without becoming the focus of attention. Seidman (2006) commented, "I have never been completely comfortable with the common assumption that the more rapport the interviewer can establish with the participant, the better" (p. 96). To facilitate a collaborative partnership, researchers need to remember that the purpose of the interview is to elicit the participant's perspective (Mack et al., 2005) and every effort should be made to prevent diverting attention away from the interviewee.

Rubin and Rubin (2012) noted that most people like to talk about themselves and are pleased when someone is interested in listening to their stories. Keeping the focus of the interview on the interviewee serves to build rapport. The interviewer's perspective on the phenomenon being researched should be invisible to participants (Mack et al., 2005), as they will be less inclined to modify their responses to satisfy the researcher. Mack et al. (2005) suggested several things an interviewer can do to emphasize the participant's perspective: treat the interviewee as the expert, keep the participant from interviewing the researcher, balance deference to the participant with maintaining control over the interview, being an engaged listener, and demonstrating a neutral attitude.

Rubin and Rubin (2012) recommended that a researcher develop a conversational partnership with the intervieweethat implies a sign of respect for the interviewee's experiences and insights. Each person interviewed, during the course of the research project, has a distinct set of experiences, perspectives, and interpretations to view the phenomenon under investigation. A conversational partnership requires the researcher to adopt a style of interaction that fits both the researcher and the interviewee. Throughout the interviewing process, the researcher assumes an active role by asking targeted questions, following-up on interviewee responses, and facilitating constructive interactions with interviewees (Rubin & Rubin, 2012). By taking an active role, "researchers should be aware of how their attitudes might influence the questions they ask as well as how they react to the answers" (Rubin & Rubin, 2012, p. 72). For example, an interviewee may respond to a question that the researcher may find morally repugnant. If the researcher reacts critically, in tone or manner, it may lead the interviewee to answer questions in a more modulated manner. Acknowledging strong feelings, biases, and predispositions enable researchers to temper their responses. Acknowledgment also invites interviewees to help the researcher to understand their perspectives ingreater depth. It prepares the researcher to respond to evocative responses in a more constructive manner. Rather than ignoring biases and predispositions, it makes better sense to recognize them when formulating questions and preparing for the interview.

Ethical Considerations

This research project was guided by the ethical principles related to research involving human participants and by the understanding that the protection of study participants began with obtaining the permission of Walden University's Interview Review Board (IRB), approval number 08-05-13-0184424. Steps were taken to maintain compliance with ethical standards by establishing clear agreements with participants, recognizing the necessity of maintaining confidentiality, obtaining informed consent, and ensuring full disclosure of the nature, purpose, and requirements of the research project.

A researcher's commitment to confidentiality is an important aspect of any research interview. Weiss (1994) was unequivocal in taking the position that nothing said to an interviewer should be made known or leaked to others and materials pertaining to or resulting from the interview should not be made available to anyone outside of the study. To this end, Kaiser (2009) noted that a commonly recognized responsibility of researchers is to collect, analyze, and report data without compromising the identities of respondents. Several safeguards were instituted to protect against revealing the identity of participants: (a) a pseudonym was used in place of the name of each participant; (b) transcripts, email responses, and audio tapes were stored on a password secured external hard drive, which were housed in a locked file cabinet; and (c) data cleaning removed names, locations, and other identifiers were removed or pseudonyms inserted to prevent inadvertent deductive disclosure. Kaiser (2009) stated the deductive disclosure "occurs when the traits of individuals or groups make them identifiable in research reports" (Kaiser, 2009, p. 1632). Additionally, the issue of confidentiality was addressed in the Informed Consent form that was sent to participants as an attachment to the Initial Invitation to Participate email (see Appendix B) and reviewed with participants prior to conducting the interview.

According to the Belmont Report (1979), informed consent requires that participants in a study have the opportunity to be aware of what shall or shall not happen to them. It is a means of providing participants with the information they need to decide whether or not to engage in a research project. In accordance with the Belmont Report (1979), three critical elements were incorporated into the consent process: information, comprehension, and voluntariness (Belmont Report, 1979). The informed consent form for this study included the following: (a) an invitation to participate in the study, who is conducting it, and contact information of the researcher and faculty advisor; (b) a statement of the purpose of the study; (c) an outline of the procedures to be followed in the conduct of the study such as the number of interviews to be conducted, the length of each interview, and follow-up methods; (d) a statement that participation is voluntary and that withdrawal from the study may occur an anytime; (e) a detailing of risks and benefits; (f) a specification of compensation and costs, if any; and (f) a statement of confidentiality. Kaiser (2009) suggested discussing confidentiality and obtaining informed consent at the outset of the data collection process further serves to build trust with participants in that consent is an ongoing transactional process. Therefore, I obtained an informed consent prior to the start of the data collection process.

Another element of informed consent is comprehension (Belmont Report, 1979). It is not enough to simply provide participants with a listing of information and have them sign an informed consent form. Researchers are responsible for ensuring that participants fully comprehend the information. With this in mind, I reviewed the information contained in the informed consent form and answered all questions posed by participants. The third element of informed consent is voluntariness (Belmont Report, 1979), which means that consent is valid only under the condition that it is voluntarily given. Any coercion or undue influence serves only to invalidate any consent obtained. As required by the Belmont Report (1979), I informed participants that any agreement to participate in the study must be voluntary and free of any undue influence. If necessary, this requirement would have been repeated to ensure that consent was voluntary and uncoerced. This was unnecessary as participants were not hesitant and, in fact, appeared enthusiastic in responding to questions.

A potential area of concern was my role as a training manager within the training organization. I manage a team of training designers serving the customer service and supply chain training organizations. Although no members of my design team were considered for participation in the study, my role as a manager within the training organization was examined as a source of potential conflict. Of concern to me was the issue of perceived coercion. I did not want member of my design team to feel or perceive an obligation to participate in the study. This would violate the condition that any participation in the study must be voluntary and free of undue influence. Seidman (2006) noted that relationship building begins from the very first moment the potential participant hears of the study. It was imperative, therefore, to create an atmosphere of openness while creating the perception of candidates that I did my utmost to protect their confidentiality while avoiding any adverse impact on them as a result of their participation in this study. Therefore, while there was a potential for risk, it was mitigated by implementing several safeguards.

First, I consistently emphasized that participation in the study was wholly voluntary and that participants must not feel any obligation to participate in it. In both the initial invitation email and the informed consent, which was attached to the first email and reviewed with the participant prior to conducting the interview, I indicated that my role as the researcher was as a doctoral student and not as a training manager. Also, both the initial email and the informed consent form notified participants of the safeguards that were to be implemented to protect their confidentiality. Further, the informed consent form addressed the voluntary nature of the study and advised those invited to participate in the study that they were under no obligation to do so.

Second, it was made clear to the candidates that they may stop answering or may elect not to answer a question if, by answering the question, they experienced any emotional distress or hesitation. The principal safeguard against undue influence was for me to understand the potential for perceived, if not actual, undue influence and to be highly sensitive to any signs of such feelings on the part of participants. Throughout all contacts with candidates and participants, I was alert for signs of emotional distress. Through all of the interviews participants appeared to be relaxed and fully engaged in the discussion.

The Belmont report (1979) recognized several variations of harm that include psychological, physical, legal, social, and economic harm. With this in mind, Rubin and Rubin (2012) offered the caveat that interviewees should be no worse off or better off for having been interviewed by the research. Protection from harm means not exploiting participants and not publishing material that would cause them to be arrested, lose a job, be denied promotion, or experience a reduction in income. Further, it means not revealing embarrassing information. One means, suggested by Rubin and Rubin (2012), for protecting interviewees from harm is to avoid asking questions that can cause them harm. After careful consideration of the questions to be asked as part of this research project, there appeared to be little probability of asking questions that would cause harm to participants. Also as a precaution, the interview questions were sent to participants prior to our interview. This process enabled participants to be fully aware of the questions to be asked during the interview. Although follow-up questions were asked during the interview, they were directly related to the questions contained in the Interview Protocol sent to participants.

As previously noted, there was the risk that a piece of information can reveal the identity of the interviewee leading to some level of harm. If this situation arose, the I removed or modified the information from the report while making every effort to avoid distortion (Kaiser, 2009; Rubin& Rubin, 2012). Another safeguard was the use of member checking as a means of providing participants the opportunity to review their transcripts for accuracy and to identify information that may reveal their identities. Rubin and Rubin (2012) suggested that researcher's form a conversational partnership with interviewees. Within the context of this partnership, participants will be more likely to share their thinking and experiences.

By establishing a conversational partnership, I was able to rely on feedback, from participants during the process of member checking, to identify information in the transcripts that may be revealing of their identities. My first responsibility was to do no harm while also having the responsibility to report information as "fully, honestly, and fairly as possible" (Rubin & Rubin, 2012, p. 89). Throughout the data collection and analysis process, I did my utmost to balance these two concerns. In retrospect, however, this was not difficult to accomplish because my highest priority was to protect participants and ensure the voluntary nature of the study.

Data Collection

This study sought to gather insights related to informal workplace learning experiences to gain a more in-depth understanding of how corporate trainers perceived their informal learning experiences, how they related to their professional learning and performance, and an understanding of the meaning they ascribed to those experiences. Workplace learning is rapidly gaining momentum among researchers as they wrestle with how to improve the acquisition, retention, and transfer of job-related skills (Fenwick, 2001). Researchers (Hicks et al., 2007; Hutchins et al., 2010) have found that much of workplace learning occurs through actual work experiences. When interviewing participants of a mixed methods study, Hutchins et al. (2010) noted that "Although learning through work experiences was the most frequently reported informal learning process in the survey results, only one participant mentioned this method in the interview" (p. 611). By probing into the experiences and perceptions of corporate trainers, researchers can gain a deeper understanding of what experiences they perceived as contributing most meaningfully to their learning, professional development, and performance on the job.

Before embarking on the data collection process, an email (Appendix B) was sent to each candidate inviting them to participate in the study. Attached to each email was the Informed Consent form (Appendix D) and the Interview Protocol (Appendix E). After addressing the purpose of the study, the requirements for their participation, and the safeguards to protect their identity and confidentiality, the email asked participants to read and sign the Informed Consent form if they agreed to participate in the study. I viewed consent to have been rendered only after the consent form was electronically signed and received byme via email. Four of the six candidates signed and returned their forms. Two candidates were sent reminder emails (Appendix C), after which I promply received their signed consent forms through email. All of the six candidates initially identified to participate in the study agreed to do so and returned electronically signed consent forms. After receiving a signed consent form, a meeting was scheduled with each participant for the purpose of conducting a 70-90 minute interview.

Gathering and Collecting Data

Data were collected from three sources: one-to-one interviews, a follow-up questionnaire sent and responded to via email, and reflection notes. Researchers (Baxter & Jack, 2008; Creswell, 2013; McCaslin & Scott, 2003; Yin, 2009) suggested that case studies draw data from multiple sources to gain an in-depth understanding of a case. A single source is typically not sufficient to form such an understanding. The interviews were the primary source of information with follow-up questions and reflection notes being used to gain a deeper understanding of data received from the interviews.

Conducting, Recording, and Transcribing Interviews

Interviews were conducted by telephone. Numerous research studies have indicated there are no significant differences in the data collected during face-to-face and telephone interviews (Opdenakker, 2006; Sturges and Hanrahan, 2004). Participants who were selected for this project were located in various states within the United States and Canadian provinces. While conducting face-to-face interviews are preferred to telephone interviews, Rubin and Rubin (2012) noted that "Interviewing by telephone can save time and money" (p.177). There is substantive support for the use of interviewing by telephone.

Prior to starting an interview, approximately 10 minutes were used to review the informed consent form, rapport building, and assess the willingness of participants to voluntarily engage in the study. Seidman (2006) suggested that an initial interview be used to determine if the initially selected individual is an appropriate fit for the project. The review of the informed consent form allowed me to do just that by ensuring that participants were aware of all of the provisions outlined in it, and they were willing to continue with their involvement in the study.

The first component of data collection was the interview, which immediately followed the aforementioned 10-minute discussion. Merriam (2009) observed that "In all forms of qualitative research, some and occasionally all of the data are collected through interviews" (p. 87). The semi-structured interviews lasted for 70 - 90 minutes. Weiss (1994) stated that it is reasonable for an interview to last 1 ½ to 2 hours. In deference to the workloads of participants, I limited the interviews so as not exceed the 90-minute limit.

I digitally recorded the interviews and transcribed the recordings. To facilitate the transcription process, voice recognition software, called Dragon Naturally Speaking, was used to transcribe the digitally recorded data into Microsoft Word, a word processing software (Hahn, 2008). By listening to audio recordings of interviews and speaking into a microphone, I verbally repeated the discussion contained on the audio recording. In doing so, the voice recognition software created a written transcript of the interview in

Microsoft Word. After the initial transcription is complete, I listened to the audio recording while reading the transcript to validate that the transcript was an accurate representation of the recording.

To further ensure that the transcription is an accurate reflection of the interview prcess, I created a new paragraph whenever the speaker changed. Hahn (2008) suggested that the "creation of a new paragraph every time a different person speaks is important to subsequent formatting of the document" (p. 79) for coding. Additionally, the transcription identified the speaker using the identifier "R" for the researcher and "P" for the participant, which made the transcripts easier to read and facilitated the process of member checking as participants reviewed their transcripts. After the transcripts had been completed, they were sent via email to participants requesting they review their respective transcript to verify it accurately reflected comments made during the interview. Four of the six participants responded that they reviewed their transcript and it accurately reflected their comments. Two participants did not submit a response. The email requesting participants to review the transcript indicated that no response from the participants would indicate they did not have any suggested amendments to the transcripts.

There were advantages and disadvantages to the use of telephone interviews. The advantages of conducting telephone interviews were the ease of scheduling interviews especially with those who have limited availability, listening intently for verbal cues, obtaining detailed responses to questions, and avoiding the time and expense of having to travel to different locations throughout the United States and Canada. The disadvantages of telephone interviewing were the inability observe visual cues and the more than expected time it took to transcribe the interviews.

Follow-Up Questions

The second component of data collection was follow-up questions. After reviewing transcriptions of the interviews, follow-up questions were emailed to some of the participants. These items were sent to participants for the purposes of clarifying statements made during the interview. They did not pursue a new line of questioning not raised during the interview as outlined in the interview guide. Post-interview follow-up questions were not asked of participants unless there was the need to clarify a key point central to answering the research question or gaining a deeper understanding of a participant's comment made during the interview.

Reflection Notes

The third component of data collection was reflection notes that were created immediately following each interview. After each interview, I recorded my impressions of the tone of the conversation, the confidence level or uncertainty of a participant's responses, and a brief summary of the interaction as I perceived them. They were used to to assist me in gaining a deeper understanding of the reactions of participants when responding to questions.

Managing Data

The early development of a scheme to organize and manage data is critical to qualitative research because of the large amount of information collected during a study (Creswell, 2012). First, all data files and notes were backed-up on a password protected

external hard drive, stored in a locked file cabinet. Working files were maintained on a different password protected external hard drive. Both external hard drives were appropriately labeled to distinguish between working files and backup files. Data files included copies of consent forms, interview audio files, transcripts, notes, a list of codes and code descriptions, and data analysis files. To assure the confidentiality of participants, a table of participant names, contact information, and pseudonyms were detailed in a document and stored on the backup hard drive. Except for this table and the informed consent form, no other files on the hard drive containing the working files or the backup files will include participant names.

Creswell (2012) suggested that file and computer files should be organized to facilitate data management. As a general prescription, files were structured according to data type and participant. For example, all interview audio files of recorded interviews were housed in an interview audio file directory. The file name included the pseudonym of the person interviewed, the designation "audio," the interview number, and the date of the interview. Transcribed audio files were housed in a transcript directory the file name containing the pseudonym of the person interviewed, the designation "transcript," the interview number, and the date of the interview number, and the date of the interview. As to codes and coding, a list of codes consisting of the code and code description were created and stored within a data analysis directory. This directory also contained the coding of each transcript. File names for those coded transcripts included the designation "code" with the iteration number (i.e., Code1), the pseudonym of the person interviewed, interview number, and the date of the

interview. As coding progressed and common themes emerge, synthesized files created with appropriate file names

Role of Researcher

I was also a member of the training organization from which participants of this study were selected. Over the past several years, my role has changed from a training specialist to a senior training specialist, project manager, and most recently as a manager of a design team. Currently, I manage a small team of senior training designers none of whom were considered as potential participants for the study. They were excluded from consideration to avoid any conflicts of interest or the perception of a conflict of interest. As a manager, I have supervisory responsibility of my design team that includes decisions relating to selecting, evaluating, and retaining members of the team. Members of the training organization, who are not part of the design team, may occasional serve projects I, or a member of my design team,manage. However, my working with them does not extend to decisions relating to their selection, evaluation, and retention; such decisions are the prerogative of their respective managers.

It was not expected that my relationship with any of the members of the training organization will impact data collection. This expectation was based on several key points of consideration. First, I was very aware of the potential for perceived coercion and emphasized in all contacts with participants that participation in the project was entirely voluntary. Second, during the interview process, participants were reminded of the requirement of voluntariness if any hesitation to answer a question is detected. Third, participants had the option of skipping a question or withdrawing from the project at any time. Thus, had they felt any discomfort or be ill at ease about participation, participants could have elected to withdraw from the project. Fourth, participants enthusiastically and unhesitantly engaged in this study because of its potential to increase the understanding of the dynamics of workplace learning and contribute to improvements in facilitating workplace learning (Rubin & Rubin, 2012). Fifth, as a member of the training organization seeking to better understand how participants perceived their informal workplace learning experiences, I was more openly accepted by participants (Rubin & Rubin, 2012). By assuring voluntary participation in the study, guaranteeing the option to withdraw from the project at any time, being a member of the training organization, creating a sense of partnership, and pursuing a research topic that participants found to be meaning, I was able to establish a context for open and candid discussions.

This project began with two fundamental beliefs. First, it was the belief that informal workplace learning is an essential component to promoting professional development and increasing performance within the work environment. Second was the belief that some form of structured informal learning would serve to optimize the efficacy of workplace learning and the development of essential competencies. Both of these beliefs influenced my predisposition at the outset of this research project.

Data Analysis

Immediately following each interview, reflection notes were recorded and the data stored in their respective files, and the process of transcribing the interviews into a Microsoft Word document began as soon as was practicable. After reading through each of the transcripts several times, I started the process of coding, which incorporated

several coding strategies. *Structural coding* was initially employed. According to Guest, MacQueen, and Namey (2012) structural coding is used to impose a structure based on the questions asked by the researcher. In this study, structural coding was used to associate participant responses with interview questions. Structural coding is questionbased code that serves as a labeling and indexing method allowing a researcher to link participant responses to structured questions and associated probing questions (Saldaña, 2009).

Descriptive and *in vivo coding* were used in this project. Before starting to code, the Microsoft Word tables were copied and pasted into a Microsoft Excel file to sorting, categorizing, and clustering subsequent codes. Descriptive and in vivo coding involved the initial coding of meaning units. Referred to as *topic coding* in some literature, descriptive coding, summarizes in a word or a short phrase the subject of a passage and sets the foundation for subsequent categorization of data (Saldaña, 2009). Somewhat similar to descriptive coding, in vivo coding is an approach that uses a word or phrase utilized by the participant as a way to code a segment of the transcript (Saldaña, 2009).

Both descriptive and in vivo coding were used to code one or more meaning units. While reading through and codes meaning units, particular attention is provided to meaning units rich in meaning to the phenomenon under investigation (Giorgi, 2009). Throughout this process all data were treated with equal importance; it was intended that any tendency to overemphasize some data over others based on my preconceived notions would be avoided. For a first round of coding, I read through and coded all transcribed data. This process generated approximately 200 codes. Several more rounds of coding ensued with a final list, consisting of 22 coding categories and 130 codes (Table 1), was generated. This coding process was an iterative process that continued until what emerged was a final set of codes that I was able to apply consistently through all of the transcribed data. Giorgi (2009) observed that "revealing meaning units stand out against all of the other units, so that is why all of the meaning units have to be covered" and plumbed for depth of psychological meaning.

Table 1

Data Analysis: Number of Codes per Category

Category	Number of codes
Administration	4
Design	3
Development	5
Delivery	3
Competency	5
Competency rationale	4
Strengths	8
Improvement opportunities	10
Future role(s)	5
Development goals	9
Significant learning	12
Significant learning rationale	3
Example impact job performance	3
Impact on job performance	7
70-20-10 development methods	7
Significant learning methods	7
Impact project-coaching	3
Professional development methods	7
Methods impacting performance	3
Effective methods of professional development	6
Improvements	9
Limitations	8

Next, the codes were clustered into themes. Through the process of thematic analysis, codes were clustered to themes, which is "a phrase or sentence that identifies what a unit of data is about and/or what it means" (Saldaña, 2009, p. 139). The themes were recurring patterns that emerged from the coded transcripts. Practically speaking, themes served to capture and unify units of meaning into a more generalized form, which will eventually lead to an in-depth understanding of the meaning of experiences. Themes were insightful discoveries that formed a notion of data to make sense of experience and to uncover its inherent meaning. They were analyzed for each individual within the case and across individuals, as this is a single embedded case study. To this end, coded units were interrogated for and clustered into emerging themes. The 22 categories detailed above were synthesized into five themes as specified in Table 2. Coding and theme identification was an iterative process of deconstructing ambiguous codes and themes into small units or avoiding redundancies by combining smaller segments of information to larger units.

Table 2

Themes	Number of categories
Functional diversity	4
Self-assessment	4
Purpose	6
Developmental methods	6
Suggested improvements	2

Data Analysis: Themes and Categories

The next two steps, constructing a narrative description of the emergent themes and deriving meaning from those themes, are detailed in the Findings and Conclusion sections. As to the narrative description, Stake (2010) reminded us that telling how something works is both descriptive and interpretive in nature. A thick description, one of the end products of a qualitative study, is a complete and literal description of a phenomenon under study (Merriam, 2009) based on emergent themes and issues. Therefore, in the Findings section, I outline a description and the findings to each of the themes resulting from the data analysis. According to Merriam (2009), meaning results when data analysis yields results that answer the research question. With this in mind, the Conclusion section answers the research questions based on the descriptions of the emergent themes.

Quality, Accuracy, and Credibility

The study incorporated procedures to facilitate internal validity or credibility, reliability or consistency, and external validity or transferability to promote quality and trustworthiness. Internal validity addresses the issue of whether or not research findings reflect reality (Merriam, 2009). It answers the question: Are the results credible (Miles & Huberman, 1994)? This study used triangulation and member checking to promote internal validity. Merriam (2009) noted that triangulation can occur through several different forms. For the purposes of this study, triangulation occurred by synthesizing data collected from various sources one-to-one interviews, follow-up email responses and reflection notes. Triangulation served to identify similarities or consistencies from one source to another. On the other hand, it also served to identify differences not apparent through a single source (Stake, 2010). Another method of internal validity used by this study is member checking. Member checking is a process of providing information to persons from whom data was gathered and asking for correction and comment (Stake, 2010). The transcribed interviews were sent to the participant for their review and comment only for clarification, or to verify that the results were interpreted correctly.

Traditionally, reliability addresses the issue of whether or not research results can be replicated. Concerning qualitative research, a more critical question is "whether the results are consistent with the data collected" (Merriam, 2009, p. 221). At times, therefore, reliability is conceptualized as consistency or dependability as it pertains to qualitative research. The issue is not whether other researchers can get the same results, but rather do the results make sense given the data collected. Merriam (2009) recommended several strategies to enhance reliability. Throughout this study, a log of the researcher's reflections and questions along with a detailing of "how data were collected, how categories were derived, and how decisions were made" (Merriam, 2009, p. 223) were maintained. According to Merriam (2009), an audit trail is a means by which researchers can increase consistency and dependability.

This study incorporated two processes to promote external validity: thick descriptions and variations in the sampling of participants (Merriam, 2009; Miles & Huberman, 1994). External validity is "concerned with the extent to which the findings of one study can be applied to other situations" (Merriam, 2009, p. 223). Thick descriptions refer to a description of the setting, the participants, and the findings with "adequate evidence presented in the form of quotes from participants" (Merriam, 2009, p. 227). By

doing so, other researchers can determine the extent to which the results of this study apply to other situations. Maximum variation allowed for the selection of participants with a range of experiences relative to informal workplace learning. By addressing the issue of external validity, the researcher provided sufficiently detailed descriptions and variations in experiences that other investigators can make a judgment concerning the applicability of the research findings to their context.

Discrepant Cases

Identifying and analyzing discrepant descriptions, furnished by participants, are essential to establishing the accuracy and quality of the research findings. It was anticipated that some comments would not be shared by others and thus not fit into or may even contradict emerging themes. Maxwell (2005) advised that researchers "need to rigorously examine both the supporting and the discrepant data" (p. 112) thus allowing readers the opportunity to evaluate and draw their conclusions. In this study, discrepant data was revealed affording readers the choice to agree or disagree with the perspectives presented.

Findings

This purpose of this section is to detail the findings as derived from a comprehensive analysis of the data collected in this study of three teams of customer service trainers. The data was collected from telephone interviews of participants, and this section is primarily intended to identify recurring themes the emerged from the interviews (Merriam, 2009). According to Merriam (2009, "the most common way findings are presented in a qualitative report is to organize them according to the,

categories, themes, or theory derived from the data analysis" (p. 248). As previously mentioned, five themes emerged from the data analysis: functional diversity, self-assessments, purpose, developmental methods, and suggested improvements. Throughout this section, therefore, each of the five themes will be examined.

Overview of Findings

At its core, this study sought to understand how training associates, who provided customer service related training to associates of a large multinational company, perceived their informal workplace experiences as having a meaningful impact on the overall professional development and work performance. One of the themes that emerged was that of functional diversity. It referred to the range of functions participants were called upon to perform in carrying out their respective roles. It was determined participants performed several roles and a variety of functions within those roles. Understanding the roles and functions performed by training associates is relevant to the research question by providing insight into the types of skills to be acquired and the functions to be performed. The types of activities in which associates engage influences how they think, act, and what they find as meaningful (Billett, 2001b).

Another theme was that of self-assessment. Participants formed judgements about their level of competency, their strengths, and opportunities for improvement. Selfassessments have been shown to affect motivation (Benbunan, 2010; Deci & Ryan, 2008) as well as self-regulation and performance (Billet, 2001b). The theme of self-assessment is related to the research question by impacting the meaning and the importance participants assign to workplace learning experiences. Also related to meaning was the theme of purpose, which provides individuals with a reason or aim of achieving an outcome. The components of purpose examined in this study included desired future roles, developmental goals, and an understanding of what types of learning did participants perceive as being significant.

A fourth theme was that of the methods associates relied upon for their professional learning and development. Overall, there were three commonly relied upon methods of development: projects, coaching, and collaboration. While these three methods were frequently mentioned, participants also revealed their referred methods. These developmental methods provided insights into the forms and attributes of informal learning used by associates and their impact on learning and performance. The final theme related to improvements suggested by participants that would enhance their learning and development efforts. This final theme, as did the methods theme, related to the research question what attributes of informal workplace learning contributed to learning and development. What follows is an in-depth exploration of the findings related to each of the aforementioned themes.

Theme 1: Functional Diversity

An emergent theme was that of functional diversity, where associates tended to perform different roles or functions (Molleman & Slomp, 1999) in the execution of their respective jobs. Functional diversity occurred within the roles and functions performed by each individual as well as the diversity occurring in the functions performed by persons engaged in the same role. Also, work activities and their variations have an impact the meaningfulness with which people perceive their work experiences. While the research is mixed, functional diversity has demonstrated to improve such things as job performance, job satisfaction, and information processing (Mannix & Neals, 2005; Eliason, 2006; Chu & Lai, 2011; Boerner, Schäffner, & Gebert, 2012). Overall, associates identified four roles they performed: administration, delivery, development, and design. One associate performed all four roles, four associates performed three roles, and one associate performed two roles. The following expressed a participant's sense of role diversity:

My primary role is training specialist, so the primary role there is classroom delivery. But I also can consider one of my primary roles to be supporting development and design of training. And more recently a new primary role for me is getting into the world of staffing and scheduling training and working with the business to balance those kinds of requests. (Melanie 12)

Diversity was not just evident in the roles performed, but more so in the functions performed within each of those roles, as illustrated in Table 3. It specified the roles identified by learners and the number of functions they performed as part of each role. Table 3

Description	Roles				
Description	Design	Development	Delivery	Administration	
Number of participants performing each role	3	6	5	4	
Number of different functions performed per role	3	5	3	4	
Average functions performed per participant by role	1.67	3.83	2.20	2.25	

Diversity of Roles and Functions Identified by Participants

As revealed by Table 3, the development role had the highest level of functional diversity as all six of the participants discharged the role with each participant executing 3.83 functions within the role. Conversely, the least functionally diverse role was that of design with three participants engaged in the role and each of those three participants, on average, performing 1.67 functions. Overall, each participant tended to discharge three roles and eight functions. Clearly diversity occurred among the roles participants performed and the functions they executed. Exploring the administrative role, functional diversity is evident through the comments of participants. Melanie12, for example, explained that the administrative role included the "Set up prior to and then typically the schedule is built" and the handling of "a lot of staffing issues that come up, attendance and things like that in the classroom that I would also need to manage in partnership with the business." Administration, therefore, involved the scheduling of classes, the scheduling of staff, class preparation, and handling student attendance. In contrast, Britt11, who also performed an administrative role, viewed the role as less diverse and centered on communicating with other organizational units: "I have questions from management or other business units to clarify procedures." Still, another variant of the administrative role was expressed by Deanne21, who considered class preparation and communicating with learners as primary administrative functions. As she noted, "different courses need different materials, cheat sheet, sometimes PDF, paper files, computers making sure the programs are on the computers things like that as well." Also, the administrative function included "making sure associates know what is needed, what they need to do." She too viewed administration in somewhat diverse terms. We can see

in each one of these responses that three individuals viewed the execution of their administrative roles in very different ways.

Delivery, performed by five of the six participants, was another role with varying degrees of diversity. Participants identified three functions that were part of delivery: presenting content, facilitating learning, and classroom management. Two of the six participants viewed all three of these functions as being part of delivery. Delivery according to Melanie12 involved presenting "content in the most clear way that I can," facilitate learning by identifying "and being able to effective close gaps for people," and thru class management which involved "adherence to a schedule." Although Deanne21 performed the same delivery functions as Melanie12, her execution of those functions differed. She emphasized presenting or conducting training as an interactive process by "doing activities and exercises. Class management was less a matter of schedule adherence and more a process of keeping "the class in-line and on-track" by "not letting conversations go to places they don't need to go." Deanne21 did share the same view as Melanie12 that the facilitation of learning centered on identifying and closing learning gaps. It is important to note that while Deanne21 and Melanie12 performed the same functions, they varied in how those functions were performed.

Within the role of delivery, participants also differed in the functions they performed. Unlike Melanie12 and Deanne21, Ken22 did not mention class management in his description of his delivery role. Instead, he focused on the functions of presenting and facilitating learning, both of which were also performed by Melanie12 and Deanne21. As there were similarities and differences in functions prosecuted by Melanie12 and Deanne21, so too were their similarities and differences in the functions completed by Ken22. For example, Ken22 viewed delivery as "really getting the class engaged and really getting the class to the point that it can acquire the skills and getting the class, and when I say class I mean students, able to apply it." This perspective was not shared by either Melanie12 or Deanne21. Britt11 had still another point of emphasis relating to delivery. She stated that "my time in front of a classroom of new hires or even incumbents is spent covering either new course material or new functions or new processes that are going on in the center." Her focus on delivering was on the presentation of relevant content. While all of these participants engaged in delivery, the functions performed were both varied and similar and even when the functions were similar participants tended to differ in their approach to executing those functions.

The functions associated with development, as discussed by participants, were concentrated in five areas: student materials (i.e., workbooks, job aides), facilitator materials (facilitator guides), instructional aids (simulations, PowerPoint presentations, etc.), e-learning modules, and assessments (quizzes). Uniformly, all participants identified the development of student materials and instructional aids as part of their development role. Four of the six participants perceived the construction of facilitator materials as a function within the development role, three of them developed e-learning modules, two participants' targeted assessments as a development function, and one participant emphasized the development of instructional aids. Development was the role with the highest level of functional diversity as participants performed an average of 3.83 functions related to it. Within this diversity of functions, the clustering of functions

performed was quite uniform among the participants. Four of the six participants engaged in developing student materials, facilitator materials, and instructional aids. Though each participant performed a variety of functions, they were fairly consistent in how they executed the development role.

Design was the role performed by the fewest number of associates and the lowest number of functions performed by those engaged in the design role. The design function was performed by only three of the six participants. Two of those three participants were members of the same team, Team 3, and both selected the same function as part of their design role, which was defining instructional content. Sandi31, a member of Team 3, explained that design was "laying out in my own mind what type of topics need to be covered and maybe what order to cover them." Similarly, Mia32 described design as determining "what we need to train." Design is a role that "very, very rarely do I touch." In contrast, Deanne21, a member of Team 2, perceived design as the process of conducting a "situational analysis" and following a structured design process "you know like performance objectives, lesson objectives, learning objects, and design documents."

From an individual perspective, participants performed four different roles with three to five functions associated with each role. The number of functions performed by participants ranged from five to fourteen. Functional diversity, therefore, not only pertained to the functions carried out by each associate but also to the variety of functions performed among all of the associates. Examining functional diversity from a team perspective, we find that some teams demonstrated a greater range of diversity than others. Table 4, for example, illustrates the range of functions performed by members of the various teams. Apparently, the members of Team 2 engaged in more functions than did the members of the other teams with each member of Team 2 balancing 11 functions. Table 4

Average Number of Functions Performed for Each Member of a Team

Functions	Team 1	Team 2	Team 3
Average number of functions performed per team member	7.5	11	5.5

Another approach to exploring the functional diversity among the teams was to examine the degree to which each team differed in the number of functions team members performed relative to their roles. Table 5 lists each of the four roles identified by participants, the numbers of functions they attributed to each role and the average number of functions performed by the members of a team. As the table demonstrates, the development role allowed the most diversity within each team but also considerable diversity among the three teams. As to functional diversity within each team, the average number of functions performed by team members ranged from three to five. In addition, the table reveals that Team 2 executed the greatest diversity of development functions with five.

Table 5

	Number of	average number of functions performed			
Roles	functions for	by each team member			
	each role	Team 1	Team 2	Team 3	
Administration	4	2	2	0	
Delivery	3	2	2.5	1	
Development	5	3	5	3.5	
Design	3	0	1.5	1	

Average Number of Functions Performed a Team Member by Role and Team

Functional diversity occurred at multiple levels. First, at the individual level. Individuals performed a range of different roles, functions, and tasks. Second, functional diversity existed among individuals as they pursued different roles, performed different functions relative to those roles, and, even when the functions were similar, the functional tasks they carried out varied. Finally, functional diversity emerged at the team level. The members of some teams demonstrated a higher degree of functional diversity than did the members of other teams. Teams also differed as to the variety of functions performed relative to the various roles assumed by participants. Functional diversity was, therefore, a theme that emerged from the responses of participants.

Theme 2: Self-Assessment

Another emergent theme was that of self-assessment, where participants were able to provide an estimate of their competencies and strengths. The accuracy of their assessments was not evaluated, but what emerged from the interviews as the capacity of participants to discriminate competencies and strengths from those areas where they were less competent and were not an area of strength. Research findings suggest that selfassessments correlated with motivation and learning (Benbunan-Fich, 2010; Lynch, McNamara, Mannix, & Seery, (2012); Mann, 2010).

Competency. Table 6 provides an overview of the number of participants who rated their competency level by roles they performed. As is evident, participants were uniform in assessing their competency level relative to delivery and development. The five individuals engaged in delivering training rated themselves at the expert level while the six individuals who developed training rated themselves as competent in the function. Table 6

Competency level –	Role				
	Design	Development	Delivery	Administration	
Novice	3	0	0	1	
Competent	2	6	0	0	
Expert	0	0	5	0	

Number of Participants Rating Their Competency Level by Role

Administration. Of the four participants that performed the administrative function, only Melanie12 rated her level of competency relative to it. She explained that from a "scheduling and staffing perspective, I would say that novice right now." The basis for her novice rating rationale was her level of experience in performing the function: "I'm very new and it's been a while since I participated in any of this kind of thing." I suspect the other participants did not rate their administrative skills because it was primarily viewed as a clerical or non-training function they performed.

Delivery. Every participant, except the single participant not engaged in training delivery, rated their level of competency to be at an expert level. All of the participants were quite confident in rendering their self-rating. A typical response is reflected in

Deanne21's statement that while "there's always room for improvement, but I would say in facilitation (delivery) I would go expert." Similarly, Britt11 stated: "I would say that I'm leaning towards expert. Not to say that I'm perfect by any means. But I think that with that role I am very comfortable in how I train in front of a group." Mia32, from Team 3, when rating her level of competency relative to delivery responded with "depending on the skill set, overall, I would say expert." Delivery was the primary or significant role of all of the five participants performing the role, as exemplified by Melanie12's statement, "My primary role is training specialist so the primary role there is classroom delivery." As a main role, the confidence of participants in their delivery skills appeared to be quite high given the amount of experience they have had in conducting training sessions.

Development. All the six participants engaged perceived themselves as competent in performing their development functions. When it came to rating his level of competency, Ken22 replied "I would say I am competent but on the middle level if there's such a thing, middle level of being competent." Similarly, Britt11's comments were reflective of most participants: "Some things, I would say that I'm competent in putting together and working with some of the tools, I'm pretty competent." She went on to say:

If somebody gives me some material and asked me to put together a PowerPoint I can pretty much go in there and do that I know what I'm doing. I can use Snag It and paint and get screenshots and I can use all the tools. I'm even pretty good

with Adobe captivate so I can capture screenshots and put together

demos.(Britt11)

Her view of development being the capacity to effectively use are a variety of tools in the construction of training materials were, to various degrees, mirrored in the comments of other participants.

Sandi31 tended to be somewhat more ambivalent in her self-assessment as a developer. As she explained it:

I would say competent. The feedback that I get from my peers and my managers, they would rate me as expert, but I'm not so sure. I'm good at what I do. But I'm not sure I met an expert level. (Sandi31)

Most of the participants were quite definite in their self-assessment. Deanne21, for example, when asked about her development skills said, "I'm competent" without hesitation or pause. For most participants, development was not their primary role but one frequently performed. Minimally, all participants appeared to be definite in their selfrating of competent about the development. The only moderate exception to this trend was Sandi31, who vacillated between an expert and a competent rating.

Design. Design was the least commonly practiced role of participants. Only three participants performed the role, although five of the six rendered a competency rating for it. Melanie12, Britt11, and Mia32 perceived themselves as novices while Deanne21 and Sandi31 evaluated themselves to be competent. "I would say novice when it comes to design" commented Melanie12. This statement is not surprising in that she did not identify design as function she performed. While Melanie12 did not engage in design, she

did view her duties as the "development of a course that's been designed and sort of passed on to me." Similarly, Mia32 also rated her level of design skills at the novice level due to a lack of experience. She noted that "then design, and again, just because I've only had a few opportunities." "I'm still struggling at the novice level," stated Britt11, "just scratching the surface." Both Melanie12 and Britt11 did not identify design as a role they performed. In contrast to Melanie12 and Mia32's lack of design experience as a basis for their self-assessment as novices, Deanne21 and Sandi31 evaluated themselves to be competent at design, with no additional explanation.

Table 7

Darticipant	Toom	Rationale for selecting competency level				
Falticipalit I	I Calli	Experience	Feedback	Assessments	Comfort	Total
BRITT11	1	Х	Х	Х	-	3
MELANIE12	1	Х	Х	-	Х	3
DEANNE21	2	-	Х	Х	-	2
KEN22	2	Х	Х	Х	Х	4
SANDI31	3	-	Х	-	-	1
MIA32	3	х	-	-	Х	2
Total		4	5	3	3	-

Rationale for Selecting Competency Level

Self-assessment rationale. An aspect of self-assessment was the rationale or the basis used in forming self-assessments of competence. Table 7 illustrates the logic used by each of the participants in shaping their self-assessment. With the exception of one participant, they used multiple sources in deciding their competency level. Overall, there were four sources that were identified by participants as having influenced their self-assessments: experience, feedback, assessments, and an individual's comfort level in performing a function. Ken22's response epitomizes the reliance on multiple sources of
information: "So, it is based on my years of my service of delivery and quizzes, surveys, how they're doing in the classroom, what I am observing, from the classroom in terms of the quizzes, and the students feedback." Apparently, most participants, as did Ken22, relied on multiple sources of information when forming an assessment of their competency.

The most cited source of information that served as a basis for forming selfassessments was feedback, as received from managers, peers, and students. Deanne21 described her reliance on feedback from peers and managers by stating "also getting feedback from others be it my peers who have sat in the class and listened or, you know, managers again sitting in and listening and based on their feedback." Britt11 also relied on feedback: "it's also based upon plenty of feedback from the learners as well as the management team. That makes me feel pretty confident." In contrast to Deanne21, BrittT11 called upon feedback received from learners and managers.

While feedback had a significant influenced on perceived competency levels, sometimes it was moderated by another consideration. Based on feedback alone, Sandi31 would have rated herself as expert in development as reflected in the following statement:

the feedback on things that I do develop, from my peers and my manager, would rightly added expert level because I was getting very good feedback on what I create, it is very well done, it is always very professional. (Sandi31) She went to day "I don't have a lot of formal training and therefore don't necessarily consider myself an expert." Hence, the feedback she received while influencing her perceived abilities, was moderated by a lack of formal training.

Another source of information used in forming self-assessments was experience, which included experiences performing a role or observing others doing so. "Largely, I base it on the amount of experience or exposure that I've had," commented Melanie12. When it came to delivery, Britt11 rated herself as an expert. This statement is consistent with her high level of experience in the classroom: "I spend a majority of my time in front of a classroom training new hires or even incumbents." Sometimes the lack of experience influenced a participant's self-assessment. The perceived lack of experience was evident in Mia32's responses. She explained that in many areas "I may not have had the opportunity to do some development work, so I don't feel like I would be considered an expert. But, maybe in some areas that I do frequently, I would. So overall, I would be competent because of that." The more experience participants had to perform a function; the higher were their perceived competency level.

A third source of self-assessments was assessments, which took the form of quizzes that measured student learning and student surveys. Measures of student learning and the results of student surveys provided information were used by participants as indicators of their abilities. In some instances, a participant was able to use assessment data as a basis for comparing their results with those of their peers. Melanie12, for example, mentioned "I can base that [self-rating] more on the feedback and quiz results and survey results as compared to other trainers." Inferred in her comments was the notion that competence is, at least in part, based on how she compared to other instructors. From a slightly different perspective, Deanne21 tended to rely on student survey results as reflected in her statement that "There're an end-of-day and an end-ofcourse survey, and I look at those scores." Unlike Melanie12, Deanne21 did not rely on quiz scores as much as she did survey results when forming her self-assessment: "I didn't mention quiz scores, but quiz scores I don't know that I counted them as much." While both Melanie12 and Deanne21 relied on student surveys and quizzes, they placed varying degrees of emphasis on the two methods of assessment.

The final source of self-assessment data was comfort level, a somewhat ambiguous term but one that was mentioned by three of six participants. The basis of comfort level appeared to vary from one participant to another. For Britt11, it was "just my feeling in general." As for Ken22, his comfort level was related to experience, "First, my years of service in the delivery classroom, I am very comfortable with it." In comparison, Mia32 viewed comfortable as a level of skill: "I just think I look at how I facilitate, where's my comfort level, where's my competence, depending on the skill set to be trained because there is some I know easily." Comfort level, then, may be a generalized feeling related to one's level of experience, or it may be related to skill level.

Overall, participants tended to base their competency ratings on the feedback and comments received from others as well as their experiences. According to participants, the amount of experience they had in performing a function influenced their competency rating. It should be noted that all participants rated their delivery skills as an expert and their development skills as competent regardless of tenure. Receiving positive feedback and having a sufficiency of experience in performing a role were highly influential in their self-assessment.

Strengths. An aspect of self-assessment was the capacity to be aware of one's strengths and weaknesses. Literature suggested that performance is enhanced by focusing on strengths while accommodating weaknesses (Buckingham, 2007). Table 8 reveals the different number of functions and the total number of duties participants identified as a strength within each of the roles they performed. As to delivery, for example, there were two discrete functions identified by participants as strengths: facilitating learning and relationship building. These two distinct functions were identified seven times by participants as a strength. Likewise, while there were four different development functions identified by participants as a strength, these functions were selected seven times by participants as an area of strength.

Table 8

Role	Number of discrete functions selected as a strength	Total number of times function(s) identified as a strength by participants
Administration	1	1
Delivery	2	7
Development	4	7
Design	1	1
Total	8	16

Number of Discrete Functions and Strengths by Role

The roles most commonly identified as strengths were delivery and development. Within the delivery role, four participants identified relationship building while three identified facilitating learning as a strength. As to relationship building, Britt11 mentioned that "I can relate very easily to learners, I remember being very clearly in their position." Similarly, Mia32 noted that "I have a great rapport with the trainees. I think that's a very important piece." For Britt11 and Mia32 relationship building was a strength central to their delivery role.

Other participants viewed relationship as a means of facilitating learning. Elaborating on this perspective, Deanne21 commented: "I think I have a way to make people feel at ease, give them the ability to be comfortable in asking questions, if they don't, then ensure understanding to be sure that they've got it, make people feel comfortable." By helping learners to feel more "at ease" in the class, she was able "to be sure that they've got it." Similarly, Ken22 explained that one of his strengths was the ability "to connect with the student and the ability to convey a message effectively to the student." By connecting with learners, he was better able to "provide feedback to our learners in terms of how they're doing, based on observations and quizzes and activities. You know, how they're progressing. So I'm able to give people feedback in terms of their progression." Even though Melanie12 did not specifically mention forming relationships as a core skill, she indicated that engaging learners was a core strength "in a delivery environment I believe are engagement, engaging learners in the classroom, and also helping them understand the content and why they need to know it." Clearly, participants perceived building effective relationships as an essential to delivering training and facilitating. Three participants identified the facilitation of learning as a strength. All three of these participants related it to relationship building.

Five of the six participants detailed strengths in performing their development role. Four discrete functions were associated with development: applying a training design, subject matter expertise, developing instructional materials, and developing assessments. The only function identified by more than one participants was developing instructional materials. It was selected by four participants, two participants who were members of Team 2 and two members of Team 3. None members of Team 1 specified instructional strategies as a strength. From Team 2, Ken22 noted that "I am able to develop a lesson plan or a job aid or something along those lines that could really connect and will really help in the learning process." Along the same line of thinking, Mia32, from Team 3, explained her strength is "developing the worksheets, the knowledge labs, whatever quiz, or whatever will help us understand if they are getting it." Besides developing instructional materials, there were other development functions identified as strengths. Melanie12 offered the following: "Strengths in term of development are being able to interpret and understand the intention of the design effectively my other strengths I think are being able to present that information based on understanding that intention in a clear way." Her capacity to interpret and follow an instructional design helped her in presenting the information. Along another line of thought, subject matter expertise was a point of emphasis for Deanne21 when she stated that "I think with development I have a good foundation a good solid understanding of the AS/400 in the process and procedures." Having that business knowledge helped her in creating a variety of learning activities. The roles of delivery and development were the more common focal points of strengths detailed by participants.

Improvement. In addition to detailing their strengths, participants were asked to reflect on areas and opportunities for improvement. Unlike their strengths, the weaknesses identified by participants were fewer and repeated less frequently. Table 9 compares the discrete functions and the total number of functions, by role, which participants defined as an area requiring improvement. There was a total of 10 distinct functions that were targeted as weaknesses with a total of 13 weaknesses specified. It is interesting to note that delivery was the role all participants rated their competency level as an expert, yet it was the role most frequently targeted for improvement. Within the delivery role, Table 9 indicates that there were three discrete functions identified as weaknesses. These functions were class management, facilitating learning, and the use of technology. Class management was twice identified as an area requiring improvement, by participants, as such participants declared a total of four weaknesses within the delivery role. Table 9 *Number of Functions and Improvement Opportunities by Role*

Role	Number of discrete functions selected as a weakness	Total number of times function(s) identified as a weakness by participants	
Administration	1	1	
Delivery	3	4	
Development	3	4	
Design	3	4	
Total	10	13	

Although there was little overall consistency among participants of the areas they targeted for improvement, there were three notable exceptions. One exception to this pattern, as previously indicated, was class management. Within the delivery role, it was the only function identified by more than one participant. One of those participants was

Melanie12. She mentioned that "I think that a weakness in the classroom for me is adherence to a schedule, a little classroom management potentially." The other participant who declared class management as weakness was Deanne21. She focused on managing student behavior rather than schedule adherence, as did Melanie12. In terms of student behavior, Deanne21 commented: "I think sometimes I can also improve on some classroom management skills especially if there's a learner who is more outspoken, being able to have those conversations, proper conversations with learners." Though Melanie12 and Deanne21 declared classroom management as an opportunity for improvement, their views of it varied considerably.

Another exception to the pattern of inconsistency occurred within the development role. Two people identified the use of technology when developing training solutions as an opportunity for improvement. In describing her situation, Deanne21 stated:

In development I still have a ton to learn. I still need to learn more about captivate. Although I've been able to put together some basic trainings through captivate, I'd really like to I'd really like to gain more skill in captivate and make it an effective online training. (Deanne21)

Another person who perceived technology as a focal point for improvement was Mia32. Rather than focusing on developing online training modules, she wanted to improve her use of "the different tools out there that are available to create course content," such as PowerPoint presentations. Although two people mentioned the use of technology for improvement, the specific skills they targeted were quite different. Of the 10 discrete functions targeted for improvement by at least one participant, three of them were twice mentioned. As previously noted, one of those twice mentioned functions pertained to the role of delivery, another pertained to the role of development, and the third was within the role of design. Relative to design, Melanie12 commented that "I've been needing some work. The fact that there are so many different strategies that I don't fully understand." She mentioned that she was just scratching the surface in her understanding of training design. Deanne21 rated herself as competent in designing training and expressed the sentiment that there is "still lots to learn in those areas you know determining what is the best way to teach something." For both Deanne21 and Melanie12, there was a lot to be learned about understanding and applying design strategies.

Theme 3: Purposefulness

One of the emergent themes was the concept of purposefulness, which refers to some intended outcome or result as reflected in the future roles, professional development goals, and significant learning specified by participants. Billett (2001b) suggested that learning in the workplace is about the purposeful development of jobrelated knowledge and skills. As people learn and apply that learning to the job, they gain experience and expertise. Expertise, according to Billett (2010) is embedded with meaning. The thought was that purposeful learning, therefore, led to a more meaningful engagement in work activities and, ultimately, better job performance.

Table 10

Participant	Team	Current role	Future role(s)	development goal(s)
Melanie12	1	Delivery	Training manager	Development/design/ training management
Britt11	1	Delivery	Development	Development
Deanne21	2	Delivery	Development/design/ mentor	Development/design
Ken22	2	Delivery	Development/design/ mentor	Delivery/development/ design
Sandi31	3	Development/ Design	Development/ design	Development/design
Mia32	3	Delivery	Development	Development

Comparison of Current Roles, Future Roles, and Developmental Goals

Future roles and developmental goals. The analysis revealed a consistent relationship between the desired future roles of individuals and their immediate developmental goals as reflected in Table 10. When considering future roles, five of the six participants sought some change from their current position, and their developmental goals tended to support or reflect that change. Melanie12, for example, wanted to become a training manager, therefore, her development objectives directly related to becoming a training manager. "In the future," she explained, "I would like to be in a role of training manager and I would also like to learn more around design and even development aspects of training." She wanted to find out more about design and development, to prepare for my overall goal, which is to move into a training manager role that is responsible for delivery." From a training management perspective, her development goals included:

"performance consulting," "learning more about getting return on investment," "the art and or science behind data and metrics related to training," "improve trainer performance," and "creating effective training faster." All of her development goals, therefore, were related to her desire to become a training manager.

Melanie12, however, was not the only participant whose developmental goals related to a future role change. Ken22 wanted to continue as a trainer while focusing more on mentoring instructors, which was outside of the current roles he performed. As he said, "I love to teach instructors how to develop, because it's so important that before you deliver it, you need to develop it, and before you develop it you need to design it." Then, he went on to stipulate that "I really want to get in more to design because you've got to design it, then develop it, and then deliver it. I really want to get those three aspects down pat in my own growth" so that he can mentor a team in performing those roles. Here too, Ken22's goal of mentoring others influenced his goals of learning more about delivery, development, and design.

While Melanie12 and Ken22 those who desired to engage in expanding their current roles, Mia32 was an example of participants who were not interested in adopting new roles but rather were interested in shifting the focus of their current roles. While her primary role was instructional delivery, she also participated in development, and she wanted to change her concentration from delivery to development. "I love being in the classroom" but she would like "more time to work on developing content trainees should have," she explained. Mia wanted to devote less time to delivering training and more time to developing it. In her words, "So if I had less time in the classroom I would have more time to work on developing content trainees should have." Mia32 sought to shift the focus of her role from delivery to development. To this end, she was very specific as to the developmental goal she wanted to pursue.

Basically, we need to revamp the entire new hire and we know this. By this I mean the entire new higher agenda. And, one skill set I would love to tackle is to start from scratch and get rid of the stuff that's not needed and put stuff in that has changed or has come about that has not necessarily be as it should be. So, that is something I would like to do. (Mia32)

As with Melanie12 and Ken22, Mia32's developmental goals coincided with her desired shift in roles.

Not all participants, however, were able to define their developmental objectives. Sandi31, for example, wanted to remain in her current position. "I enjoy what I am doing now," she explained, "so I am not necessarily looking to move to other roles, but to improve on what I'm doing and how I do it." Though she wanted to learn more about design, Sandi31 is unclear as to what she needs to learn in furthering her knowledge and skills. As she said, "I know that there is more to learn and that I would like to keep learning. I'm not sure exactly what that is." Upon reflection, she mentioned taking "some courses and learn more about the design and development side of things." Before ending her comments, she noted, "I think one of the things we're moving more toward is the virtual training. So I'm okay to learn more about those things as well." Overall, there were two participants who were somewhat ambiguous as to the development goals they wanted to pursue. Regardless of the degree of clarity, all participants demonstrated alignment of developmental goals with the future roles.

Significant learning. To determine what is meaningful to an individual, I needed to consider what outcomes they deemed worthwhile pursuing and what purpose they intend to fulfill in pursuit of those outcomes. Therefore, another aspect of purposefulness, as an emergent theme, was what participants identified as learning that they considered to be significant and the rationale for their selection. During the interviews, participants were asked to describe what knowledge and skills they acquired over the past year or two and what the rationale for their selection was. Most frequently, participants identified learning related to their delivery and development roles as being the most significant that occurred within the past year or two. Additionally, they revealed that learning role-related skills, which they viewed as leading to expert or competent performance, was important to them. This insight suggested that the acquisition of the knowledge and skills they specified as significant contributed to their perceived competency level. Overall, there appeared to be a definite relationship between the developmental goals, meaningful learning experiences, and future roles of participants.

Both the delivery and development roles were mentioned by four participants as significant learning occurring within the past year or two. Britt11 was one of three participants who targeted functions of both the delivery and the development roles as significant learning. As to delivery, she stated that "I learned that as in my capacity as a trainer, even though I am facilitating training classes, I have learned to communicate better and have my eyes open more to how to communicate better." Then, as to

development, she noted that "development is one of the most significant because I'm continuing to use it because it's one of the things that I've been developing on. So it's to me one of the most significant." In her explanation, she also offered the rationale that it was significant because she engaged in development, and she is "working on" improving her development skills, as reflected in Table 10. Development was a significant learning because it was both relevant to performing her job and consistent with a career development goal.

All participants targeted skills sets as significant that were relevant to improving their job performance through learning and development. Mia32, who selected delivery as important, noted that "in the last year or two, the more I deliver the same content, the more comfortable I am doing that." She went on to explain that the more she was asked to deliver a different course, it made her feel more "competent and comfortable in delivering" it. The more she was exposed to teaching various aspects of the job, the more her abilities and knowledge base increased. As a result, her comfort level with teaching different courses grew. Similarly, Ken22 mentioned there were "so many things: how to design, what steps need to be taken in developing a curriculum, what strategies need to be employed, what strategies and methods need to be used in designing and developing curriculum" that were significant. They were significant because they assisted in his "development as a student of the craft" and they assisted in "performing his job better." Britt11 stated that learning more about the development process was, for her, significant learning. She reasoned it was significant "because I am continuing to use it. It sticks in my head because it's one of the things that I've been using." Participants consistently

deemed as significant those learning experiences that aided them in performing their respective roles.

Theme 4: Methods

The workplace learning strategies employed by training associates was explored from three different perspectives: methods relating to the 70-20-10 model of staff development, methods resulting significant learning, and methods leading improved performance.Table 11 illustrates the developmental methods or approaches used by participants from the each of these three perspectives. Researchers (Billet, 2001a; Crouse, Doyle, & Young, 2011; Hicks, Bagg, Doyle, & Young, 2007; Marsick, 2006) have suggested that multiple forms or approaches to workplace learning as a means of professional development. Substantially, regardless of perspective, work assignments have served as the foundation of most learning efforts. It is well established that engagement in work activities leads to learning (Billet, 2001; Garrick, 1998). They served as the baseline for trial-and-error learning, reflection, coaching, and collaboration.

Table 11

Developmental method	70-20-10 model	Significant learning	Improved job performance	Total
Assessment	1			1
Coaching	4	4	3	11
Collaboration	3	5	4	12
Observation	1	1		2
Project	5	6	6	17
Research/reading	3	2		5
Team meeting		1	1	2
Formal training		1	1	2
Accountability			1	1
Reflection			1	1

Comparison of Developmental Methods

Note. Compares the number of participants employing various developmental methods for applying the 70-20-10 model of staff development, promoting significant learning, and improving job performance.

70-20-10 model. Relative to the 70-20-10 model of staff development as

employed by the company, participants primarily relied on work projects as well as the coaching and collaboration that accompanied those projects as an essential means of professional development. Five of the six participants, identified projects as a means of professional development and four of these five participants also relied on coaching for their development. In addition to work projects and coaching, both reading and peer collaboration were mentioned by three participants, as developmental approaches. The two participants who did not identify coaching as a means of professional development instead selected peer collaboration. Instead of receiving coaching from managers or project leads as means of development, they relied on peer collaboration. Project-based work assignments, coaching, peer collaboration, and reading were they most commonly methods participants used for professional development.

It appears that project work and coaching were closely associated in that they were both selected by four participants. The following statement reflected this link:

I benefit the most from coaching. So in terms of the most effective method I think that assigned projects are an effective method when they are combined with coaching. I experience growth by doing the task and making the mistakes and maybe even seeking out feedback on how to how to fix the mistakes I find the most value in the most growth for me comes after a project being able to get feedback and coaching as to what went well and what didn't and what I could do better next time. (Melanie12)

For her, project-based work afforded the opportunity to test new techniques and to receive feedback as to that will enable her to make future improvements. With a slightly different perspective on the project-coaching link, Deanne21 explained: "Assigned projects and coaching. Really, assigned projects mainly and of course coaching also plays a role in those assigned projects those two really are the most the two that I've relied on the most for my development." While both Melanie12 and Deanne21 relied on project work and coaching to improve their knowledge and skills, Melanie12 viewed coaching as the most critical method of development while Deanne21 saw it work projects.

Similar to both Melanie12 and Deanne21, Sandi31 relied also relied on work projects as a primary means of development: "The vast majority of what I have learned is through doing. Doing the projects is where most of my learning has come from." Sandi31 did not think that coaching was an important part of her professional development. After noting that 90% of her professional learning occurred through assigned projects, she went on to explain:

And to be fair because I have been in learning and development for so long, I've been through a number of managers and many different supervisors and with each one there were different levels of coaching and opportunities to take training classes and stuff varies quite widely. There have been many years where there was no opportunity to take formal training classes. There were a number of managers were I got no coaching. So, I would say that 90% of what I got was by doing. (Sandi31)

She was not opposed or resistant to coaching, rather it was that the coaching she received was sporadic. Her comments suggested that with coaching being an unreliable means of professional development, she instead looked toward collaboration from peers as a source of feedback. She suggested that "you also have to be willing to take feedback and take direction from others. So if somebody gives you suggestion on how you can do things better that you take that into account as well." For some participants, peer collaboration was a much relied upon means of professional development.

Overall, three of the six participants relied heavily on peer collaboration for their professional development but probably no one more than Ken22. He described his experiences as follows:

I relied on what I called a mentorship program and that's not something formal that's just my name for it. The mentorship program was tag teaming with skilled and experienced trainers that had been there longer than I had. So, in the classroom, I relied on one of my coworkers to basically what we call show-methe-ropes, give me the ins and outs of delivering system training in a classroom setting. I've also relied on my coworkers to help me deliver virtually. (Ken22)
The guidance, assistance, and observations of experienced peers were critical elements for Ken22.

Ken 22 noted the importance of observing his peers teach was also valuable. "So from seeing the trainer do it, my co-workers do it, I then go back and just test that out myself." He went to state that observing other instructors perform was "one of my strongest ways of learning actually seeing it being done, taking my notes down and then going for it myself." For Ken22, interacting with peers through some form of collaboration or observation were keys to his development. Though not mentioned by Ken22, these interactions were within the context of performing some assigned project. Whether he was receiving guidance on how he taught a class, observing a peer teaching a class, or testing some newly acquired technique in an actual teaching situation, for Ken22 learning occurred in the performance of a work-related project.

Besides projects, coaching, and peer collaboration, three participants mentioned reading or research as an approached they relied on for professional development. According to Ken22, "you can't always observe everything being taught. You have to really go learn about it by reading up on it." Melanie12, another participant relying on research, "Just researching the field and reading the Internet is a useful tool in terms of blogs and forums and ASTD" were ingredients of self-development. Reflecting on her developmental experiences, Mia noted "I haven't had a lot of guidance in the training aspect other than a couple of things." Turning to her own resources, reading "the existing agendas that were there when I became a trainer was a huge part of it and then doing some research if I didn't understand something." Reading books, blogs and forums on the internet, and company documents were indispensable to Mia's self-development activities.

Learning and development through the application of the 70-20-10 model encouraged participants to apply an assortment of approaches. Regardless of the approach to professional development used by participants, projects served as the context within which learning occurred or, for some, it provided the opportunity to learn through trial and error. They also relied on coaching and peer collaboration as an essential source of feedback and performance related guidance. To supplement this learning, 50% of the participants turned to reading and researching as sources of information. While this form of learning was not a relied upon means of professional development, it probably would have been a more frequently accessed means of development if they were made more readily available. Britt11 noted that "Even though formal classes are not always necessary, I think they are very helpful for most of what we're trying to develop here." Access to multiple learning approaches, especially work projects, coaching, collaboration, and reading, appeared to be the hallmarks of the 70-20-10 model of staff development as perceived by participants.

Significant learning. Participant interviews sought to understand what approaches participants employed to learn those knowledge and skills they deemed to be significant. Experience plays a central role in learning as learners extract those things that are important and meaningful to them (Billet, 2001; Garrick, 1998; Lohman, 2005). Therefore, understanding what experiences they perceived as contributing most to their professional development was essential to gaining insight into the significance of informal workplace learning practices.

When asked about what methods or approaches they employed to acquire knowledge and skills they deemed significant, it was readily evident through the comments of instructors that learning centered on assigned projects. It was the only method used by all participants. Whilel projects were central to learning, they were not the only approach used by participants. Instead, they tended to utilize multiple approaches to learning. For the most part, participants, members of Team 1 and Team 2, relied on a combination of projects, coaching, and peer collaboration as the primary means of acquiring knowledge and skills they deemed significant. While none of the members of Team 3 mentioned coaching as a method they employed, members of all teams looked upon project work as their primary source of professional development.

All of the participants commented that projects served, in one form or another, as the basis of their learning. For Sandi31, as an example, projects provided the opportunity to "going in and playing around with the technology using the meeting room and WebEx and such." Britt explained the importance of project work by saying: "Because I was assigned projects, I did get an overview of what development was and what we are looking for. I acquired it because primarily I was assigned." In Ken22's case, working on projects provided him the opportunity to observe peers and ask questions that arose during projects, which served to guide him through the project. He explained that coworkers "really modeled away for me and helped me out and was there for me, for my questions and really guide me through the project." Deanne21 found projects to provide the basis for team discussions. "So, really, I think that projects in those meetings," she elaborated, "really sort of helped solidify sort of levels of learning for me as a starting at looking at training in a much different light." It is important to note that projects provided the experiential foundation upon which trial-and-error experiments, coaching, and peer collaboration were based.

Coaching and peer collaboration were heavily relied on approaches to learning and skill development of participants. When Ken22 was working on projects, "getting some feedback from other coworkers" through collaborative discussions were keys to his learning. Collaboration was also an important means of learning for Melanie12. She commented that "discussions, after a design team meeting, with one or more of my peers, and talking through how we understood it" helped her in gaining greater insights into projects and the techniques and strategies associated with them. Melanie12 felt that receiving "coaching one-on-one from the designer" and gaining insight into "their understanding of those things" were vital to her development. With all six participants identifying projects, five specifying collaboration, and four mentioning coaching as means of learning, the nexus of these approaches was instrumental in acquiring what participants perceived as significant knowledge and skills.

Improved performance. The third perspective examined was the learning strategies resulted in improved job performance. The responses of participants to the issue of improved performance were consistent with their responses regarding the 70-20-

10 model and significant learning. Project-based learning, coaching, and peer collaboration were the methods most relied upon for professional development leading to improved job performance. There were some distinguishing and notable insights that emerged. Melanie12, for example, discussed the importance of accountability to her learning; Deanne21, in contrast, elaborated on the importance of reflection; and, Sandi31 noted that while project-based learning was not a preferred method of development, it was the method most often used.

At its core, professional development leading to improved job performance resulted from working on assigned projects, as all six participants identified it as contributing to improved job performance. Projects provided the context and the foundation for learning through peer collaboration, coaching, team meetings, accountability, and reflection. Referring to the relationship between projects and coaching, Melanie12 stated: "For me the best way is to do it is to have that one-on-one experience." The one-on-one experience she referred to was coaching feedback such wherein assigned work projects provided the context for feedback and afforded her the opportunity to apply "feedback for improvement that was offered." Assigned projects also served as a framework for accountability. She explained that "the accountability piece for me, from a professional development perspective, keeps me motivated because I know somebody is holding me accountable" for completing a project. Accountability occurred, for Melanie12, within the context of meeting the deadlines, deliverables, and expectations of a project. Deanne21 noted that projects provided not only a foundation for coaching, but it was the focal point for team meeting discussions and individual reflections. In the following comment, she described how projects provide the foundation or the context for collaboration and reflection:

I think really for me being able to have a conversation, get me thinking about past trainings and things we've developed and then going to the next project. For me, it lets me think how come we improve it next time, how can I make it better next time, so really the combination for me is key. (Deanne21)

Participants consistently viewed projects, coaching, collaboration, and other approaches, such as reflection, team meetings, or accountability, not as distinct learning methods but rather as a more multi-faceted process of learning. Though projects provided the foundational concrete experience for feedback, discussions, and reflection, learning was an outcome from the integration of these various approaches. Sandi31 also reinforced this pattern of learning through a blending of approaches.

While Sandi31, in previous questions, affirmed value and importance of "learning by assigned projects," she made it evident that do so was not her preferred manner of learning. As she explained, "learning by doing is what my experience has been but it is not necessarily what works best for me." She went on to say:

I am someone who learns well by taking a class or learning from someone else or even just having a discussion with someone who has the experience that I don't. So, personally I definitely would feel that the blended approaches necessary. (Sandi 31) Project based learning was not Sandi31's first choice, it emerged as her primary source of knowledge because "I don't have a lot of formal training." As she previously stated, "Doing the projects is where most of my learning has come from." In estimating the amount of her learning that was project based, she said, "I would say higher than 70%, probably more like 90%." Despite her preference for formal learning, at the core of most of her learning were projects that served as a context for peer collaboration, observation, and her research.

Table 12

	Frequency	of Methods	Used by H	Participants
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Method	Number of participants using a method	
Assessment	1	
Coaching	5	
Collaboration	5	
Observation	2	
Project	6	
Research/reading	4	
Team meeting	2	
Formal	1	
Accountability	1	
Reflection	1	

As revealed in Table 11, project work and learning through others, particularly coaching and peer collaboration, were the methods most heavily relied upon by participants. On the average, participants relied on 4.5 different methods for their learning and development. Not only were these methods heavily used by participants across the various perspectives that were analyzed, but they were also used most consistently from one participant to another as Table 12 reveals. The table also indicates

that research and reading were used by four of the six participants. Of the ten methods mentioned by participants during their interviews, six were utilized by no more than two participants. Therefore, while there was considerable consistency among participants regarding some of the methods used, there was also a wide range of variability.

Theme 5: Improvements

Throughout the interviews and, largely, in response to a question asking participants for suggestions to improve their professional development, there were nine areas of improvement suggested by participants as summarized in Table13. Improvements most often suggested were: more opportunities to collaborate with peers, more time to pursue opportunities for professional development, more opportunities to attend formal training, and more coaching. While there were some common trends in the suggestions offered, the mix of was highly individualized. For example, Britt identified three areas of improvement: more coaching, peer collaboration, and formal training. Only one other participant, Sandi, made the same suggestion. The diversity and mix of recommendations appear to demonstrate a broad range of perspectives and preferences held by participants.

Table 13

Suggested Improvements

Suggested improvements	Number of
by participants	responses
Collaboration with other trainers	6
Formal training	4
Time devoted to development	4
Coaching/mentoring	3
Use of assessment data	2
Defined project goals	1
Instructional guide book	1
Opportunity to observe others	1
Standing check-in meetings	1

All of the participants wanted more collaboration with peers to help improve their professional development. One of the reasons cited for collaboration was the rationale of being exposed to more points of view and perspectives. "So it's kind of interesting not to collaborate with just one or two people for feedback," reflected Britt. She went on to say "but to branch out and get a bunch of different feedback, so we are all consistent." Similarly, Mia considered collaboration as a means of learning: "I really do think it really would be great to be involved in talking to other trainers to learn about aspects of learning and development." Another reason cited for collaboration is testing or verifying one's approach or strategy. Reflected in Dari's statement was the point of view that "I need the ability to bounce ideas off of people."

The lack of time was a potential barrier to informal workplace learning. Four associates indicated they preferred to have more time to devote to professional development. Each of the four participants wanted more time for different reasons. Mia, for example, has a desire to engage in more development time and would like "more time to work on developing content trainees should have." Melanie wanted to spend more time working on projects, as a means of professional development; however, the "classroom training schedule makes me unavailable for project work that could help me develop." In contrast, Ken would like more time to "talk to subject matter experts about design, delivery, and development." But, as he stated, time to do so is limited as "we have to get things done very quickly to meet the needs of business." Meetings with project managers, during a project, were valuable learning opportunities for Dari. As Dari continued, "with time limitations being very short, not having the opportunity to sort of check-in as much as you would like" could impede constructive feedback that resulted in further learning. With each of these participants, the limitations of time were a barrier to their professional development and, as a result, they wanted more time for staff development efforts.

While formal training is outside of the scope of informal workplace learning, it was a consistent preference among participants. The relatively persistent emergence of formal learning, as a means of professional development, may suggest less of a disparity between formal and informal learning than is indicated in literature. "You do rely a lot on the assigned projects and a lot less so on the coaching and formal training," explained Sandi, "but, in the very beginning more of the formal training and more of the coaching may be beneficial." It appears she was intimating that formal learning served a greater role professional development when learning a new set of skills. Britt notes that it is "good to have the formal training." She continues by stating that "Even though formal classes are not always necessary, I think they are very helpful for most of what we're trying to develop here." Sandi looked upon formal training as serving the purpose of learning new skills. From a somewhat different perspective, Britt viewed it as being very helpful for most of what needs to be learned but it may not always necessary. From the statements of Sandi and Britt, formal training is for acquiring new skills and advancing existing skills.

Three of the six participants suggested more coaching. According to Sandi, she would "love to see would be more coaching, more collaboration, and more of an opportunity to take formal training classes." From her perspective the "70 - 20 - 10theory is probably a good theory. I am not sure that is what we are doing in practice." She was not requesting that more than 20% of her professional development occur through coaching. She would be satisfied if 20% of her development could be attributed to coaching because "but I don't even think we are doing that or at least in my experience." Also suggesting more coaching was Britt. She explained that "I think coaching because we all have different styles and we all have different personalities and depending upon who you are working with you going to get different feedback." Just as she sought a variety of perspectives through collaboration, she would like to receive coaching from different people. Through more coaching, Melanie found "clues and gap closer techniques and best practice sharing" through coaching and collaboration efforts that are based on assessment data. She suggested that greater emphasis on survey data and instructional audits could provide "quality control" relating to the design, development, and delivery of training. Additionally, this information could serve to focus coaching and collaboration efforts to identify and close performance gaps of instructional staff.

For the participants requesting more coaching, they were all seeking more insight into techniques, strategies, and approaches that will contribute to professional growth. While there were many similarities in what they were seeking from coaching, each nonetheless wanted something slightly different than the others.

Conclusion

The purpose of this section is to present a narrative summary of the major findings as they relate to each of the three sub research questions and the primary research question. Thematic analysis yielded five themes that emerged from participant interviews: (a) functional diversity, (b) self-assessment, (c) purposefulness, (d) methods, and (e) improvements. The results of this thematic analysis were used to answer the primary and sub-research questions. Organizationally, I employ an inductive approach by answer each of the subquestions and conclude by answering the primary research.

Research Subquestion 1: Attributes of Informal Workplace Learning

The first sub-question asked: What forms and attributes of informal workplace learning have contributed most to professional learning and performance improvement? The answer to this question can be deduced by understanding participant perceptions associated with: (a) the 70-20-10 model of staff development, (b) the learning strategies of participants relating to significant learning, and (c) the learning strategies of participants relating to their professional development. By exploring the answer to this question from three perspectives, I was able to evaluate the degree of consistency or inconsistency with which participants applied learning strategies. Two general conclusions can be drawn from analyzing the interview data. The first is that there were developmental methods that were consistently utilized by participants. These methods included learning through engagement in work projects, through interactions with others, in the form of coaching and collaboration with peers, and through reading and research. Participants also relied on an array of strategies that were more a reflection of individual preferences rather than those commonly used. Therefore, the second conclusion is that many of the learning strategies used in workplace learning reflect the personal preferences that are less frequently used by others. The following is a listing of some of these individually focused strategies: observations, assessments, reading and research, team meetings, accountability, individual reflection, and formal training. It is suggested, therefore, that any coherent approach to developing a strategy for informal learning in the workplace should incorporate these two conclusions.

At the core of workplace learning are the projects and work activities assigned to individuals. Work assignments or projects were the cornerstones of professional learning and development. The analysis revealed three reasons for this. First, projects provided the context and the experiential foundation that other learning strategies could be applied. For example, coaching occurred within the context of a project. As participants worked on projects, they received coaching about their performance on it. So too was it concerning collaboration. Work assignments provided a context where participants could collaborate with peers as they wrestled with resolving problems and completing a project. If associates were engaged in a project and needing to solve a problem, they may decide to research literature in an attempt to resolve the particular problem encountered. Projects were also the targets of discussion in team meetings. They provided opportunities for teams to discuss what was working well on the project, what challenges were they confronting, and ideas for overcoming those challenges. Projects provided opportunities for concrete experiences, direct feedback through coaching, the exploration of ideas and possibilities through collaboration, goal setting, and self-assessment; the context for learning and develop to occur.

Second, engaging in project work ensured that any learning that took place through participation in work activities is relevant to job performance. Projects provided real world challenges, problems, and issues that required training associates to engage in a diversity of activities, functions, and roles. Consistently, the comments of participants reflected a range of duties and roles they were called upon to perform in the execution of their responsibilities. It is important to note that it was not the mere engagement in work activities that lead to their learning. Instead, as participants engaged in a project, as they received targeted coaching, and as they collaborated with their peers, they were able to test their knowledge and skills through project work and were able to make adjustments based on feedback and collaborative interactions. Involvement in a range of work projects enabled learners to increase their skill sets in delivering training, developing training materials, and in designing learning experiences to the extent that their roles and functions performed on projects permitted.

The third reason projects were foundational to learning is that they provided the direction and structure through which learning could occur. As to direction, projects had

specified outcomes to be achieved. The outcome may be the delivery of a classroombased training program, the development of a virtual training course, or the design of a series of e-learning courses. Through these defined outcomes, learning was not a catchas-catch-can process but rather a series of well-targeted and purposeful learning experiences. A structure was clearly present in the comments of participants. They frequently referred to forms, design and development processes, and strategies used during their work on projects as being instrumental to their learning and professional development. In addition, there were organizational structures such as team meetings, managers, project leads and designers to provide varying degrees of support during a project.

In addition to projects, the guidance, support, and feedback received through coaching and peer collaboration were essential to workplace learning as typically and consistently expressed by participants. Clearly, workplace learning was not a solitary process but one very much dependent upon interaction with others. Coaching was a form of feedback during the course of a project. In this way, participants received information as to what was working well and the changes they needed to make. While collaboration with peers was also a source of feedback, it also provided an opportunity to explore alternative ideas and approaches as participants sought to work out solutions to problems they encountered on their respective projects. Uniformly projects, coaching, and collaboration were the methods of informal learning most frequently relied upon for professional development. Coaching and peer collaboration offered participants a muchneeded means of social support, encouragement, and assistance. Another commonly relied upon approach to learning was the reliance on independent reading and research, typically performed through a search of articles found on the internet. Four of the six participants used this approach. Beside the strategies of learning through work projects, interactions with others, and independent reading, participants tended also to apply a range of more individually preferred methods of development. By allowing participants choices, to an extent that is practicable, enabled them to select projects, interactions, and developmental methods that were meaningful to them in facilitating both their learning and performance improvements.

Research Subquestion 2: Meaningful Learning Experiences

Research subquestion 2 asked: Upon what basis or rationale are workplace learning experiences deemed to be meaningful? Billet (2010) suggested that meaningful work lies at the heart of effective workplace learning and practice. The question that calls out for an answer is what constitutes meaningful work? To answer this question, several emergent themes converged to provide some level of insight into the factors contributing to the concept of meaningfulness as it relates to workplace learning experiences. These emergent themes were purpose, functional diversity, and self-assessment. Meaning is not a monolithic concept but rather a multifaceted one (Chalfsky, 2010). According to different researchers (Billet, 2010; Chalfsky, 2010), meaning involves having a purpose, pursuing one's purpose(s) through varied work assignments, and developing a sense of autonomy.

An aspect of meaning in the workplace is finding one's sense of purpose (Chalfsky, 2010), which was a theme that emerged through interviews with study participants. As my analysis indicated, there were three concepts about the purpose that emerged: future roles, developmental goals, and significant learning. Relative to significant learning, one of the interview questions posed to participants addressed the things they learned over the past year or two that they perceived as being significant. All of the participants, in one form or another, indicated that a learning experience was important to the extent that it contributed to improved job knowledge and performance. Chalfsky (2010) noted that the work itself is a source of finding meaning as people find opportunities to perform work they deem to be meaningful. This thought is consistent with the finding that learning in the service of improved performance was significant. While the development role was an area of significant learning, the functions performed within the role varied from one participant to another. For example, the development functions ranged from alignment and development processes to the use of technology and developing virtual training. In addition to the development role, delivery and design were also viewed as areas of significant learning. Among the three roles, of delivery, development, and design, there were 11 functions identified as areas of significant learning. The diversity of roles and functions deemed as meaningful suggested, in part, the importance of functional diversity to the capacity of associates to find meaning within their work activities.

Both desired future roles and development goals were reflective of an associate's sense of purpose. Participants were asked to look forward to what future roles they envisioned themselves engaged in and what developmental goals did they have for themselves. Both reflect, albeit differently, desired future outcomes. Based on my

analysis there appeared to be a relationship between a participant's vision of a future role they would like to pursue and their professional development goals. Although there are many ways meaning can be defined, Chaflsky (2010), in citing Csikszentmihalyi, recognized that meaning was understood through the intentions that an individual holds. Future roles and developmental goals indicate the intentions held by participants and reflect those things meaningful to them. With the exception of one person, whose desire it was to become a training manager, participants wanted to focus primarily on increasing their development skills. Two participants wanted to improve their development and design skills, which was linked to their desire to mentor other trainers in delivery, development, and design. Clearly, therefore, development and design were two areas professional development that participants viewed as meaningful. Although delivery was not an opportunity for future development as viewed by all but one participant, it was recognized as an area of significant learning by four of the six associates. All of the participants, with one exception, were engaged in the delivery of training. Therefore, learning related to delivery was significant as it was relevant to a role they currently performed. It was clear that four of the five participants engaged in delivery were looking to expand their skill sets beyond delivery into development and design as reflected in their future roles and development goals.

As suggested by Chalfsky (2010), finding and acting upon one's sense of purpose is an element of meaning in the workplace. Individuals can derive an understanding of their sense of purpose by reflecting on theactions and choices they deemed to be significant as revealed in their desired future roles and developmental goals. Through an
analysis of these factors, it became apparent that participants typically find purpose and, hence, meaning in developing and performing roles relative to training design, development, and delivery. According to Garrick (1998), employees are required to be highly specialized while possessing the flexibility to perform a variety of roles. This flexibility to which Garrick (1998) refers implies the capacity to assume multiple roles with each requiring a specialized set of knowledge and skills.

Another emergent theme, related to meaning, was functional diversity that refers to the capacity of individuals to perform a variety of roles and functions. Researchers (Elliason, 2006; Jorgensen, Davis, Veluswamy, Ekrut, & Kotowski, 2004) illustrated that job diversity was associated with increased job satisfaction; while Garrick (1998) pointed out functional flexibility increased developmental opportunities. From a diversity perspective, participants identified four key roles they performed: design, development, delivery, and administrative. While associates perceived design, development, and delivery as meaningful, the administrative role was not similarly perceived. It was a role to be performed but it lacked meaning and significance to the participants. The administrative role tended to be clerical in nature and, therefore, appeared to be of little consequence to trainers.

Researchers (Billet, 2001b; Billet, 2010; Chalfsky, 2010; & Garrick, 1998) recognized that engagement in workplace activities leads to professional learning and development. Building on this concept, Lohman (2005) contended that individuals can construct learning from meaningful work experiences. As my analysis revealed, participants were engaged in a variety of functions related to each of the multiple roles they performed. Therefore, what was considered a meaningful work experience varied from one associate to another. Functional flexibility, therefore, afforded multiple paths an associate may choose in pursuit of engaging in meaningful work projects. Garrick (1998) noted that flexibility allowed worker's greater opportunities to learn and adapt in realizing their developmental potential. While there was diversity among the four roles assumed by participants, there was even greater diversity among the 18 functions performed. By providing a rich array of work activities, functional diversity contributed to creating meaningful learning experiences.

The third element in understanding the meaningfulness of workplace learning experiences was self-assessment. As previously mentioned, developing a sense of autonomy is an element of meaningfulness. Through self-assessment, individuals selfcorrect and self-regulate (Billet, 2001b) thereby promoting one's sense of autonomy. By understanding how participants assessed their competencies, their strengths, and areas requiring improvements, I was able to gain insight into what aspects of their jobs held greater meaning for them. For example, although the four participants mentioned performing an administrative role, only one person rated their competency level in performing that role, targeting it as a strength, and suggesting it as an opportunity for improvement. The other three participants disregarded it as a competency, strength, or area of improvement. I believe this is reflective of the limited level of meaning they attached to the administrative role, which is primarily clerical in nature. Despite being a function performed by several participants, most of those engaged in performing the administrative function focused their attention on the delivery, development, and design. In contrast, only three participants performed the design function but five members rendered a competency rating and three of those performing engaged in design targeted it as an area of improvement. Self-assessment, whether it be their competency level, strengths, or improvement opportunities, reflected those roles and functions that have meaning for participants.

The two roles participants identified as possessing the highest level of competency were the delivery and the development roles. Relative to these roles, participants also viewed them as having the greatest number of functional strengths andthe most opportunities for improvement. For example, all of the participants who engaged in delivering training rated themselves at an expert level of competency. Not only was it a role with the highest number of strengths, but it was also a role within which there were a high number of improvement opportunities. Wlodkowski (2008) indicated that self-assessment can give an individual a greater level of control and, thus, a sense of autonomy, which as previously contributes to one's sense of meaning. Based on the analysis of interview results, it was clear that developmental experiences relating primarily to delivery and development and, for some, design were the most meaningful to participants.

Workplace learning, related to their sense of purpose, associated with the roles and functions they performed on the job, which contributed to their sense of competence and strengths, influenced the experiences participants deemed as meaningful. Though meaning was explored from different perspectives, there was a remarkable sense of consistency in what was perceived as meaningful.

Research Subquestion 3: Improvements in Learning and Performance

Research subquestion 3 asked: Specifically, what areas of learning and performance improvement have workplace learning experiences contributed? It appears that an individual's project work and developmental goals influenced the areas workplace learning experiences that had the greatest impact on learning and performance. Given the project-oriented learning and development of the training organization, participants viewed learning as serving the purpose of improving project related performance. Participants engaged in a project and focused their learning efforts on those things that enabled them to perform more effectively on the job. Also, for most participants, significant areas of learning and performance improvement tended to align with their developmental goals. Both the drive to perform competently on assigned projects and the desire to pursue their developmental goals influenced the direction of the professional development.

As might be expected, participants targeted the delivery, development, and design as those roles most impacted by informal workplace learning experiences. These roles were the most meaningful to associates, frequently associated with previous learning they deemed significant and cited as areas for developmental opportunities. While participants uniformly identified these roles as significantly impacted by informal workplace learning experience, there was considerably less agreement at the functional level. For example, within the delivery role, some participants viewed the facilitation of learning as an area of learning and performance improvement while others selected aligning their presentations with design and development documents. Ssome participants felt their capacity to apply effective training methodologies was most influenced by their development efforts, while other participants believed their ability to construct online or virtual training was improved. Finally, a few participants suggested their ability to apply effective training design strategies and processes improved as a result of informal learning practices. In part, this implies the value of functional diversity to learning and performance.

Through functional diversity, participants were able to engage in a variety of different roles and functions. Knowles (2005) noted that the greatest resource to advance learning was experience. Assuming Knowles's assertion, as study participants engaged in performing different roles and functions, they were exposed to a broad spectrum of work activities, and, therefore, afforded learning opportunities they could pursue. Depending on what path was most meaningful to them and although they performed the same role, they were able to focus their attention and work effort on those functions they deemed most meaningful. For example, let us consider two individuals whose primary role is delivery but want to improve their development skills. One training associate may have wanted to focus on increasing their ability to construct online training while the other intended to concentrate on developing assessments instruments. Through functional diversity, participants were able to pursue a course of workplace activities and learning that they deemed personally meaningful. In doing so, their perceptions relating to the areas of learning and performance most impacted by workplace learning experiences varied from one participant to another.

It appeared that development goals and performance improvement both influenced and were influenced by the types of workplace activities performed. Again, while participants indicated that learning and performance improvements occurred in each of the three roles. Within those roles there were variations in significant learning. Within the development role alone, there were five functions identified by participants as areas of considerable learning. Consistently, participants mentioned that they experienced learning and performance improvements in each of the three key roles of delivery, development, and design.

Research Question: Informal Workplace Learning Experiences

The primary research question asked: How do training associates perceive informal workplace learning experiences as having a meaningful impact on their overall professional development and work performance? Study participants perceived informal learning experiences as meaningful when viewed through the lens of furthering their competency, adding to their ability to perform a range of job functions, and increasing their capacity to achieve desired developmental and career goals. The mix of learning methods used by participants tended to fell into three categories: participation in assigned projects, social interactions, and a combination of individually preferred approaches. Increasing their level of competency, their facility to perform multiple roles, and their ability to perform key functions within those roles served to lend purpose to their on-thejob learning efforts. Learning and development were clearly linked to the types of projects they were assigned and the structure of their work environment.

Foundational to their learning efforts were assigned projects and work activities. Projects provided a means for the concrete application of their knowledge and skills; they determined what was worth learning; and theyserved to focus professional development efforts. As participants engaged in projects, the nature of the work to be completed dictated the skills required to meet project deliverables. Training associates worked to acquire new skills or expand existing ones that were necessary to achieve project outcomes. By participating in a variety of projects requiring them to perform different roles and functions, participants were afforded a range of real world experiences vital to refining their knowledge and skills. Applying their skills to developing project deliverables provided participants with a means to test those skills, receive feedback from peers, project leads, and managers, and to form judgments regarding their level of competency or ability. Feedback and experience were key factors influencing the perceptions of participants regarding their level of skill.

While projects provided the means and the foundation for learning, the social context also played a large role in facilitating learning. By social context, I am referring to an environment that encouraged coaching, provided by project leads and managers, and collaboration among peers. Through coaching and peer collaboration, participants received feedback, support, and the opportunity to explore alternative approaches and ideas related to their respective projects. It is important to note that coaching and collaboration occurred within the particular context of the project, which defined the procedures and structure of interactions, and work processes. As work experiences were project specific, so too were the feedback and deliberations related to it. Although feedback was essential as part of the learning process, it tended to be mediated by an individual's experiences, both past and present, and an individual's overall comfort level performing a role and function.

Participants were quick to adopt development strategies they deemed as having a meaningful impact on increasing their level of learning, competency, and performance. They looked toward their project work, social interactions such as coaching and peer collaboration, and a hybrid of personally preferred approaches for their professional development. Functional diversity afforded participants a breadth of experiences thus requiring them to apply their knowledge and skills to a variety of problems and circumstances. This range of experiences was an essential attribute allowing participants opportunities to reinforce and expand their skill sets. Learning took place within a specific context, which was the project itself. As they moved from one project to another, the context and what they learned changed.

The types and variety of projects laid a foundation for participants to find both immediate and future meaning, purpose, and relevance in their work. Functional diversity allowed participants to evaluate their performance and abilities through the lens of different projects as they were called upon to respond to a range of situations, challenges, and problems. Additionally, as they engaged in a variety of projects, they discovered what types of functions were engaging and meaningful, thus setting the course for further development and the potential expansion of job roles.

Work projects and the environments they occurred provided a structure that enabled purposeful learning and development to occur. Procedures, goal-directed activities, support, and career paths, are examples of the types of structure and systems provided by the workplace that influence the nature and direction of learning and development. Most of the participants began their training career as a trainer delivering training. As they became more competent in delivery, they expanded their development role, and, over time, a few moved on to design. By assuming different roles, participants were able to gain insight into what functions within these roles appealed to them and those that did not. For example, one participant, primarily engaged in delivery, learned that she wanted more opportunity to develop classes as she became more involved in the development role. It was her goal, therefore, to spend less time "in the classroom" to "have more time to work on developing" courses. Without a structured environment that enabled participants to progress from one role to another, they would be hampered in both their learning and development. Learning, development, and performance improvement were not ad hoc serendipitous occurrences, but rather the outcomes of the structure inherent within workplaces.

In summary, based on the perceptions of study participants and an analysis of the five themes, there emerged four elements of workplace experiences that contributed to meaningful learning and performance improvements:

- Engaging work projects and activities were foundational to learning and development.
- Social interactions, through coaching and peer collaboration, provided feedback and additional insights to one's performance and alternative courses of action.
- Purposeful work-based learning and development opportunities provided the impetus for individual development action.

• Structure, through goal-oriented projects, functional diversity, support from team members and managers, and work processes, organized and targeted action.

Workplace learning needs to be viewed with systems thinking in mind. It is, for all intents and purposes, not an ad hoc process but one grounded in the purposeful integration of a variety of elements.

Section 3: Project

Introduction

This doctoral study was designed to explore the attributes of informal workplace learning, within a corporate environment, that contribute most meaningfully to the professional development and improved performance of training associates. The corporation relies mainly on the 70-20-10 model for its approach to staff development. According to this model, 70% of an individual's learning is related to on-the-job experience, 20% is related to learning from others (i.e., coaching), and 10% is related to learning from coursework (Lombardo & Eichinger, 2011). Therefore, approximately 90% of an individual's learning is attributed to informal learning strategies, which include learning through work experiences and learning from others. It was the intent of this study to examine and understand characteristics of informal learning that contributed to learning and performance improvements as perceived by the study participants. Six interviews of customer service training associates were conducted to gather their perspectives on their learning and development and the potential impact of their learning experiences on their job performance.

Description and Goals

The project (Appendix A) is a white paper that provides managers with background information about study results and offers some guidance regarding the development of informal workplace learning. Fundamentally, the project is composed of the following sections: an executive summary (Kantor, 2009), a summary of the study's findings and conclusions, recommendations, an implementation strategy, an evaluation plan, and a discussion of the implications of the project relative to social change and its importance to customer service training associates. Through the inclusion of these seven sections, it is intended that the project will achieve two goals: (a) to provide customer service training managers with a particular set of recommendations, based on the findings of the study, as to the implementation of informal workplace learning strategy, and (b) to provide those managers the information to make an informed decision as to whether or not they want to include some or all of the recommendations. To provide further clarity about the project, a brief description of each of the seven sections of the white paper follows.

Scholarly Rationale for Why Project Was Chosen

The rationale for choosing the development of a white paper was grounded in the goals of the study project, which are to provide managers with recommendations and information necessary for implementing informal workplace learning. As previously mentioned, the company relies on the 70-20-10 model of staff development, wherein 70% of development should occur through assigned projects, 20% of one's development should occur through assigned projects, 20% of one's development should occur through a manager's feedback, and 10% of development can occur through formal training . Approximately 90% of an individual's learning therefore occurs through informal workplace learning. The issue of how informal learning experiences should be structured or facilitated remains largely unanswered. Training managers are uncertain as to what types of learning experiences are most meaningful to training associates and what approaches would yield the greatest impact on improved job performance. It is intended that the findings and conclusion of the study provide the basis for recommendations that

managers can use to facilitate informal workplace learning solutions within their respective teams. A white paper is a vehicle through which customer service training managers can receive these recommendations and upon which they can decide if any or all of the recommendations will be implemented with their respective teams. So, why is a white paper an effective medium to share the results of the study and the recommendations for facilitating informal workplace learning?

efining a white paper "is one of those challenges people have been wrestling with for some time" (Stelzner, 2008, p. 2. Graham (2013) describes a white paper as a persuasive essay that seeks to promote a product, service, or solution. Another view is that it is a "technical or business benefits document that introduces a challenge faced by its readers and makes a strong case why a particular approach to solving the problem is preferred" (Stelzner, 2008, p. 3). Kantor (2009), in his definition of a white paper, emphasized that it seeks to "educate, inform, and convince a reader through the accurate identification of existing problems and the presentation of beneficial solutions that solve those challenges" (p. 11). For the purposes of this project, a white paper is a business document that presents reliable, evidence-based information that can be used by readers to make informed decisions relative to a problem or challenge they are confronting. While white papers are often used as marketing tools by businesses (Graham, 2013; Kantor, 2009; Sakamuro, Stolley, & Hyde, 2014; Stelzner, 2007), they are constructed to educate and inform decision makers by providing accurate, fact-driven, and valuable information.

One of the attributes of white papers is that they are fact based. Toward this end, the white paper will include a review of the findings of the study, which will serve as a basis for the recommendations offered by it. Kantor (2009) argued that a primary attraction of white papers is the ability to provide "educationally related content that leverages facts to validate the claims and build reader credibility" (p. 11). A review of the study's findings and conclusions, therefore, is essential to building credibility and establishing a foundation such that readers can trust the recommendations being offered and, therefore, may be persuaded to incorporate them into their approach to workplace learning.

Another factor considered in the decision to use a white paper was that of advocacy. White papers seek to influence or persuade readers to adopt their recommendations. Robert Stake (2010) wrote that advocacy is inherent within all research. He recognized that researchers seek objectivity in their explanations and understandings. Many would shudder at the thought of being perceived as advocates of a particular position or finding. Nonetheless, hesaid, researchers "have strong feelings about social matters and show advocacy in their reports" (Stake, 2010, p. 200). He noted that researchers advocate, but in doing so they are troubled by the fear that their research is more aspiration-focused than it is a quest for objective evidence. In the final analysis, however, individuals engaged in research are complex human beings. Being fact-based, a white paper is an effective medium to advocate the incorporation of its recommendations into a manager's approach to workplace learning. White papers are solution focused, which is another of their attributes. Creswell (2012) stated that research is "important because it suggests improvements for practice" (p. 4). The study undertook to examine a real-world problem associated with workplace learning. A discussion of this problem is part of the white paper. This discussion is important because it allows the reader is to connect the solutions proposed in the white paper to real-world issues (Stelzner, 2007). With this in mind, the findings and conclusions can contribute to improving the practice of workplace learning as it occurs within a customer service training organization specifically and possibly to workplace learning overall. A white paper is an effective medium to suggest well-targeted research-based solutions to decision makers.

Being solution focused, a white paper is an excellent medium to address an issue of this study, which was to understand how informal workplace learning could be effectively advanced within the workplace so that trainers could effectively increase their capacity to acquire and apply skill sets in the execution of their respective duties. As previously mentioned, the executive summary serves as the introduction to the white paper and identifies the problem addressed by the study. It is followed by a description of the themes, findings, and conclusion of the study. Graham (2013) advised that a white paper use facts and logic to advance a solution to a particular problem. With this in mind, the study's findings and conclusions serve to establish a foundation for the solutions and recommendations offered in the subsequent sections of the white paper. Through this process, it is intended that the white paper address the problem pursued by this study.

Rationale for How the Project Addresses the Problem

This study sought to address the problem of how to promote informal workplace learning to allow trainers within a customer service training organization to acquire and apply essential job-related knowledge and skills. The company relied on managers to implement the 70-20-10 model for staff development. Without any clear direction of how to use the model, managers were at a loss as to what types of work experiences led to the learning of skills to improve on-the-job performance. The project, which is based on the study's findings, provides managers with guidance for executing informal workplace learning. In support of the problem addressed by the study, the project is a white paper that provides managers with information and recommendations on implementing an informal workplace learning strategy. To achieve this end, the white paper consists of seven sections, with each section providing essential background information or information relating to constructing an effective informal workplace learning strategy. Each of the seven sections is outlined below.

An executive summary is a concise way to focus the attention of readers on the most critical points to be made in a white paper and should be considered an important part of any white paper (Kantor, 2009). Kantor (2009) identified two types of executive summaries: the preview style and the synopsis style. The white paper uses the synopsis-style executive summary, which is a synopsis of the white paper in one or two pages. Additionally, it is composed of three sections: (a) problem, (b) solution, and (c) outcome (Clayton, 2003; Kantor, 2009). The executive summary serves as an introduction to the white paper (Graham, 2013).

Following the executive summary is a concise specification of the study's findings and conclusions, which constitutes the second section of the white paper. The major themes, implications of those themes, and overall conclusions are discussed. At the start of this study, managers expressed confusion as to what types of informal learning experiences contributed to learning and performance. The findings and conclusions of the study provide an evidence-based foundation for the recommendations that follow. White papers need substantial evidence to make their case (Graham, 2013) and provide managers with reliable information to make a practical decision. According to McPherson (2010), it is this evidence-based trait of white papers that make them sources of valuable information. It is necessary to provide a research-based foundation for recommended solutions, and a detailing of the study's findings and conclusions serves this end.

The next section, in keeping with the natural flow of the white paper, is a specification of recommendations regarding the practices that should be considered in the implementation of an informal workplace learning and development solution. These recommendations are based on the findings of the project study as they pertain to each of the emergent themes. This section is important because an essential component of a white paper is the solutions it prescribes (Graham, 2013; Kantor, 2009; McPherson, 2010; Stelzner, 2007).

Next, the white paper examines potential strategies for the implementation of the recommendations. Largely, these implementation strategies are factors and suggestions that managers should consider when constructing their own approaches to workplace

learning. The implementation strategies are followed by a section detailing various methods and approaches managers can use to assess the impact of their workplace learning strategy on the development and performance of members within their respective teams. The white paper concludes with an examination of the impact that the implementation of the proposed recommendations may have on each member of the team as well as the team itself.

Review of Literature

The literature review serves a dual purpose. First, it explores the use of the white paper as a valid medium for providing decision makers with objective and reliable information to assist them in deciding whether or not to implement the recommendations outlined in the white paper. Despite the fact that there are very few scholarly articles pertaining to white papers, evidence is offered relating to the acceptance and widespread use of white papers to convey information and facilitate decision making. Given the simple fact that white papers assist people in the decision-making process, decision theory is suggested as a foundation for the use of white papers. The second purpose of this literature review is to provide support for the findings and conclusions specified in this study. Four elements emerged from the study that contributed to meaningful learning and performance improvements: work projects, social interactions, purpose, and structure. Support related to these elements is offered in the review of literature. Based on the dual purpose of this literature review, the section is divided into two parts. Part 1 reviews the literature relating to the function, purpose, and utility of using white papers, while the second part provides support for the findings of the study.

The search for literature coincided with the two parts of this section, with the initial literature search concentrating on white papers and a subsequent search focusing on the research findings. There were very few scholarly articles pertaining to the use and benefits of white papers. The literature search began with a search of the Walden University Library's education, business, and psychology databases. The search was conducted using Boolean phrases that included *white papers, position papers, qualitative research, decision-making, and decision theory*. What emerged from this initial round of searches were examples of white papers, examples of position papers, and a few references to them in scholarly articles. With minimal results from these searches, the pursuit of scholarly articles shifted to the use of Google searches. Two doctoral dissertations were discovered through these searches. Eventually, the search turned to books and websites that contained white papers. The combination of articles, dissertations, books, and examples of white papers and position papers provided ample evidence for using white papers to inform decision makers.

The second part of the literature review was conducted to corroborate the findings of this study. Again, using educational, business, and psychology databases available throught the Walden University Library, I undertook a search to find scholarly articles supportive of the research findings. This search used Boolean phrases to locate appropriate articles. Overall, more than 40 search terms and phrases were used to comb through available research. In part, the search incorporated search terms associated with the major themes that emerged during the study: *workplace learning, project-based learning, informal learning, coaching, collaboration, functional diversity, self-* *assessments, self-regulation, learning goals, performance goals*, and so on. Overall, this comprehensive literature search provided a basis of support for the findings and conclusions of this study.

Part 1: Support of White Papers

This part of the literature review addresses the medium of the white paper as an objective and reliable source of information that can be used by managers in the decision-making process. The literature regarding white papers is examined from two perspectives. First, the utility of white papers is examined. White papers are used in a variety of industries and serve a range of purposes. Despite the variations in white papers, they are looked upon as reliable and effective sources of information. Next, the theoretical basis for white papers is reviewed. Here, it is argued that white papers assist in the decision-making process. Decision theory and decision-making are the focal points of the section.

Utility of White Papers

Scholarly literature on white papers is, at best, very limited. McPherson (2010) wrote, "I found only three research based studies on white papers" (p. 23), and Willerton (2005) noted that any technical writer looking for a definition of *white paper* is "unlikely to find helpful academic resources" (p. 7). In her dissertation, McPherson illustrated how white papers were a "recognized and used document type in widely varying fields" (p. 11). She also suggested thatwhile the content of white papers is rarely, if ever, cited as source documents in technical communication research, they can provide highly valuable information such that "researchers may be missing out on an important source of

information" (p. 11). Similarly, Willerton (2012) also recognized that white papers are used in many different industries while serving a variety of purposes. McPherson (2010) and Willerton (2012), as well as other authors on the subject of white papers (Graham, 2013; Kantor, 2009; Stelzner, 2007), attested to the widespread and varied use of white papers.

White papers are used in a variety of industries for a range of purposes (Willerton, 2012). Willerton (2005) explained that people can understand white papers by "looking for trends and tendencies" (p. 11). In the 1970's, white papers were internal documents used to convey strategic and tactical plans (Stelzner, 2007). During the 1980's, white papers tended to focus on technical topics and by the 1990's their marketing value emerged (Stelzner, 2007). Graham (2013) predicted that white papers will continue to evolve and the information contained within them will help people to solve problems, understand issues, and make decisions will continue to be of value for years to come. The value of white papers resides in their capacity to provide accurate information that facilitates problem-solving, understanding, and decision-making. The notion of using white papers as a source of objective information wasat the core of why Van Renssellar (2013) advised thought leaders to write "objective white papers that clarify key issues" (p. 10).

Sometimes white papers serve as a foundation for articles published in professional journals. For example, Jacobson and LaLonde (2013b) wrote an article entitled "Proposed: A Competition to Improve Workforce Training" published in the Issues In Science and Technology journal. The article offered solutions to the problem that "many people seeking career advancement ultimately choose training programs that do not suit their needs" (Jacobson & LaLonde, 2013b, p. 43). It was, however, adapted from a white paper, "Using Data to Improve Performance of Workforce Training," (Jacobson & LaLonde, 2013a) composed by both authors. Similar to the journal article, the white paper offered solutions that will help prospective trainees make more informed choices regarding the types of training programs they should enroll in. Though a number of authors (Graham, 2013; Kantor, 2009; & Stelzner, 2007) view white papers as marketing devices, the white paper by Jacobson and LaLonde (2013a) offered readers information and solutions that could assist them in choosing the right training program for their particular need. O'Brien (2008) noted that white papers serve the purpose of educating far more than they do as a vehicle for increasing sales.

There are many websites using white papers to advocate for fact-based solutions. An example of this is the Center for Creative Leadership, which has a number of white papers on a wide range of leadership related topics on its Website. One of those white papers is entitled "Leading with Impact: How Functional Leaders Face Challenges, Focus Development, and Boost Performance" (Walsh & Trovas, 2014). Through a series of interviews, it examined the challenges and realities faced by functional leaders and how they can focus their professional development to boost or enhance their performance. The people interviewed held different titles such as vice president or senior director and they serve a range of functions that include sales, marketing, finance, operations, engineering, technology, and human resources. Well researched and referenced, the white paper was written for a specific audience that is looking for accurate information and reliable solutions to a real world problem.

In support of the value of white papers, Kantor (2009) wrote, "One of the reasons business decision makers appreciate white papers has a lot to do with it perception as an influential fact-based medium" (p. 8). Willerton (2005) made the point that business leader's look to white papers to learn and they appreciate the real-world focus of problems and solutions. He indicated that "a market firm, industry analyst, or testing lab" (Willerton, 2012, p. 107) could purchase reprint rights of a survey or research report, which could then be published as a white paper. White papers, he argued, serve its readers by providing them with reliable information. Often, decisions are made by people who have little or no expertise in a particular area, and a white paper can be viewed as a source of valuable information. Willerton (2012), advanced the argument of incorporating research into white papers by stating that a group of engineering consultants "emphasized that they valued references to other sources" (p. 43). Further, he mentioned that this same group ascribed credibility to white papers that referenced other published material.

In the world of business, time is a limited commodity. A 2008 survey by Eccolo Media (Eccolo Media, 2008) revealed that the majority of survey respondents considered white papers to be the most influential among the five types of collateral material surveyed. While white papers may not be pervasive in scholarly journals, they are, as evidence indicates, an important source of information among today's time-constrained business community.

Theoretical Basis for White Papers

Why write white papers? They help people to make decisions (Stelzner, 2007). The theoretical basis for the use of white papers was found in decision theory. Decision theory is the theory of rational decision making, which involves selecting the best course of action from a set of alternatives (Peterson, 2009). The ultimate aim of decision making, according to Peterson (2009), is "to formulate hypotheses about rational decision making that are as accurate and precise as possible" (p. 2). With decisions having the capacity to shape the course and outcomes of one's actions, the search and acquisition of reliable and accurate information tends to be goal-directed (Halevy & Chou, 2014). People prefer to better outcomes than worse outcomes. It stands to reason, then, people will seek out those strategies that lead them to results more closely aligned with their goals. Normative decision-making theories, in contrast to descriptive decision-making theories, attempt to define prescriptions about how decisions can be more rational and correct. Well-constructed white papers will layout strategies that can be considered when seeking a solution to a problem.

Studies demonstrated that increased context-based complexity "lead to an increase in information acquisition and the use of a more attribute-wise search pattern" (Pfeiffer et al., 2014, p. 103). When confronted with having to make a choice, people tend to select and alternative from a list of options presented to them. In doing so, they follow a decision strategy, which is viewed as a set of operations used to move from their current state of knowledge to one sufficient to solve a problem. One of these strategies is for decision makers to compare alternative courses of action by applying a step-by-step

evaluation of the attributes of the various alternatives (Pfeiffer et al., 2014). The nature of decision-making encourages and guides the gathering of informed and relevant information to the end of making meaningful decisions. It was said that decision theory is about making rational decisions. A decision is considered rational "if and only if the decision maker chooses to do what she has most reason to do at the point in time at which the decision was made" (Peterson, 2009, p. 4). This idea presupposes that the decision maker has a goal in mind. In keeping with the concept of rationality, a decision is intended to align with the goal.

McPherson (2010) noted that whitepapers are frequently used by business managers, technology analysts, and engineers to make future decisions and as a source of new ideas. It is clear, therefore, that the process of decision-making encourages and guides the gathering of reliable and relevant information. If business managers, technology analysts, and engineers use white papers in their search for ideas and potential solutions, it appears within reason that they consider well researched and referenced white papers as valuable sources of information.

Part 2: Support of Findings

The research question pursued by this study asked: How do training associates perceive informal workplace learning experiences as having a meaningful impact on their overall professional development and work performance? During this study five themes emerged: functional diversity, self-assessment, purposefulness, methods used for professional development, and suggested improvements to enhance their professional development. Based on these emergent themes, four actionable elements were identified that answers the central research question of the study. The four elements were: (a) work projects and activities; (b) social interactions; (c) purposeful learning and development; and (d) structured informal learning. This segment of the review of literature section examines each of these elements and how literature corroborates them.

Work Projects and Activities

This study, as well as others (Billett, 2011; Crouse et al., 2011; Hicks et al., 2007), revealed that people rely on various methods of learning to advance their professional development. Regardless of the methods used, work assignments consistently serve as the foundation for informal learning. People learn by engaging in real-world work projects, trial-and-error, collaborating with others, and receiving coaching while working on projects. Work assignments provide a medium for applying acquired knowledge and skills; they guide people in determining what is worth learning; and they serve to focus the developmental efforts of individuals engaged in a project.

A conclusion of this study project was that work assignments and activities served as the foundation to learning and development efforts of study participants. Project-based learning refers to the theory and practice of utilizing real-world work assignments on time-limited projects to achieve performance objectives and facilitating individual and collective learning (Cho & Brown, 2013; Defillipi, 2001). In the 1980s, the Center for Creative Leadership conducted a series of studies to explore how successful executives learned the skills they needed to be successful. Their findings revealed that 70% of a person'slearning was related to on-the-job experiences, 20% of learning could be attributed tointeracting with others, and 10% occurring through formal training (Hatcher, 2014; Lombardo & Eichinger, 2011). Based on their research, informal learning accounted for 90% of executive learning. Lombardo and Eichinger (2011) suggested that through engagement in real work projects people gain new insights and competencies. Jobs, they argued, should be thought of as a series of developmental experiences.

Experiential learning. Learning through participation in work activities is not ad hoc, but rather transferable to other projects and situations. Workplace learning is not only concerned with developing competencies for an immediate project, but also with developing and expanding skills that can be applied to other projects (Bingham & Davis, 2012; Boud & Garrick, 2001; Eraut, 2011; Maniam, 2012). At its core, learning through engagement in work projects is a form of experiential learning. Through the lens of experiential learning, Bard and Wilson (2013) contended that the workplace is an experiential learning environment. To engage in work activities was to experience, feel, and to understand them through the process of becoming immersed in those activities. The most powerful learning came from direct experience through a process of taking action and noticing the consequences of that action (Pedler & Abbott, 2013; Senge, 2006). As employees work on projects and implement solutions, not only are they able to learn through the process of analysis and solution determination, but also through collaboration, coaching, and observing the consequences or results of their actions. By working on a variety of projects, they have the opportunity to apply what they have learned from previous projects to whatever project they are currently working on.

Work experiences, such as assigned projects and work activities, provide the glue that holds together the various dimensions of workplace learning. Illeris (2011)

maintained that workplaces have specific purposes, goals, and conditions that are not primarily related to or are for the purpose of learning, but nonetheless are crucial to learning. Billet (2001c) advanced the notion that "the kinds of activities that individuals engage in determining what they learn" (p. 151). The learning that results is clearly relevant to achieving the desired goals of the organization. Projects have the potential of serving as a catalyst for learning and professional development (Mayfield & Mayfield, 2012; Yeo, 2009) as they concentrate on solving problems and achieving defined outcomes. Yeo (2009) pointed out that problem-based learning is "highly applicationoriented" (p. 6). Projects promote learning as workers strive to achieve specific outcomes that define the context and the course of learning (Park & Jacobs, 2012; Yeo, 2009). The advantage of learning by working on real-world problems is clear. Workers must find real solutions to real problems in their actual work environment. They learn through the process of confronting real problems, taking deliberate actions, reflecting on their actions, and collaborating with others.

Of critical significance is that project-based learning is always related to the primary purpose, processes, and structures of the workplace. Learning is "embedded in everyday practices, action, and conversation" (Fenwick, 2008, p. 19). This view does not suggest that learning in the workplace is automatic. Individuals may find themselves treating their work in a routine manner, or they may elect not to take advantage of learning opportunities as they arise (Barnett, 2001; Siadaty et al., 2012). Projects provide baseline work-related experiences that serve as an ever-present impetus for learning. Through engagement in real world projects, individuals learn by pursuing analytical

thinking in a problem-solving context (Vendituoli, 2008). Billett (2001b) identified several reasons work projects serve as an effective means of learning. First, work projects have a set of desired goals or outcomes. Workers can easily connect the purpose and use of what they are learning to achieve project goals. Second, they learn by actively applying acquired knowledge and skills. Learning is an active rather than a passive process. Third, employees learn to identify the conditions under which their knowledge can be applied. Finally, they learn to apply what they have learned to a range of different situations and problems thereby enabling the practical application of knowledge beyond the boundaries of the immediate project.

There is a structure to real world work projects. Illeris (2011) contends that learning relates to the purposes, goals, and structures of the workplace. Work projects have a set of desired goals or outcomes. They occur within the boundaries of certain processes and procedures, are context specific in terms of the types of support or guidance individuals receive, and require that certain types of activities occur in order to achieve stipulated goals (Billett, 2001b). It is this structure that helps to facilitate learning. Work-based learning occurs while engaging in some on-the-job action rather than through some simulated exercise (Raelin, 2008). Learning, therefore, is influenced by the types of activities performed by employees and the kinds and scope guidance they receive during the course of the project (Billett, 2001c; Ghitulescu, 2012). If an individual engages in developing an online self-paced learning module, then the learning that occurs will typically pertain to designing and developing an online module. If a trainer was assigned the responsibility of delivering a virtual training course, then the tasks performed, and the learning acquired are likely to relate to virtual training delivery.

There is long-standing evidence that experientially based learning is effective in the workplace (Billett, 2001b). Moore (2010), in reporting on a study of work-based learning in the nursing field, identified six qualities of work-based learning:

- Performance related, as learning pertains to the tasks and functions that need to be performed during the course of a project or work assignment;
- Problem-based, to the extent that projects address particular problems and issues;
- Learner-centered, in that learners are responsible for learning those things necessary to perform the tasks required by the project;
- Collaborative, such that people with different skills and backgrounds cooperate in resolving bringing a project to a successful outcome;
- Performance enhancement, where the goal or work-based learning is to improve one's performance; and
- Innovation, in that it requires new learning techniques and approaches.

Much of an individual's learning results from persistent exposure to an array of problems, situations, and activities. In essence, people learn from their experiences, which is one of the most fundamental and natural means of learning (Bard & Wilson, 2013; Jennings & Wargnier, 2010). Experiential learning theory defines learning as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 41. Knowledge, therefore, "results from the combination of grasping and transforming experience" (Kolb, 1984, p. 41). From another perspective, experiential learning is the construction of knowledge and meaning derived from real-life experiences (Yardley, Teunissen, & Dornan, 2012). Billett (2001b) found that the workplace activities influences how people learn, how they think, and how they act. Experiential learning provides the framework for understanding how projects and work activities impact learning and development.

It is an accepted point of view that abilities are derived mainly from how individualsperceive and interpret their experiences rather than learning directly from experience (Jarvis, 2009). Fundamentally, experiential learning is grounded in pedagogical constructivism (Hedin, 2010). Hedin identified four key attributes of constructivist learning: (1) learning is action based, (2) prior learning is foundational to current learning, (3) learning involves interaction with others, and (4) learning focuses on real-world, authentic, experiences. Constructivism refers to learning where individuals construct, create, and evolve their knowledge and sense of what is meaningful. In the workplace, therefore, workers are exposed to different experiences through their assigned projects and activities. Workers develop their knowledge base through these experiences and, in doing so, determine what is meaningful and what is not. Learning, however, is not an entirely solitary process. It results from the combination of factors that include: varied work experiences, the opportunity to apply the knowledge and skills derived from those experiences to different situations, social interactions with others as a means of feedback and exchanging information, and the opportunity to reflect on experiences. (Jennings &

Wargnier, 2010). Learning is both a personal and social construct based on what is perceived as meaningful through persistent exposure to real-world experiences.

In his book, Work-based Learning, Raelin made the distinction between action learning and active learning (Raelin, 2008). While both are forms of experiential learning, their difference provides insight to the value of workplace learning. Active learning encourages learners to apply learned knowledge and skills to contrived situations through such learning devices as simulations and case studies. In contrast, action learning occurs while working on and reflecting upon actions directed toward solving a real world problem and occurring in an actual work setting (Marquardt, 2011; Raelin, 2008). Marquardt (2011) stated that "There is no real meaningful or practical learning until action is taken and reflected on, for one is never sure an idea or plan will be effective until it has been implemented" (p. 3). While there is limited rigorous research on the efficacy of action learning, Leonard and Marquardt (2010) found that action learning had a positive impact on the performance of managers, who had the opportunity to take action in solving real world challenges contributed to its success.

Social Interactions

A simple fact is that people learn from others. One of the findings of this study is that participants relied heavily on coaching and collaboration as factors contributing to their professional development. A study by du Toit and Reissner (2012) found that shared experiences was foundational for learning, which is largely a social affair. The relationship between learning and social interaction in the workplace is well established as evidenced by the work of researchers over the years (Billett, 1995; de Vries et al., 2013). More broadly, social learning theory provides a theoretical perspective on how experience and learning occur within a social milieu (Yardly et al., 2012).

Coaching and collaboration. Besides learning engaging in work projects, study participants identified coaching and collaboration with their peers as two other methods heavily relied upon for their professional development. The 70-20-10 model of development suggested that 20% t of one's professional development can be attributed to interactions with others (Lombardo & Eichinger, 2011), such as coaching and collaboration. Both of these developmental methods provide people with feedback and information that contribute to their overall learning through dialogue and discussion within the context of a work project.

The processes of dialogue and discussion enable team members to gain insights not attainable to individuals alone. Theoretical physicist, Bohm described a dialogue as "something more of a common participation, in which we are not playing a game against each other, but with each other" (Bohm, 1996, p. 7). In contrast, discussions involved the process of presenting and defending different views with the intent of eventually settling on the best solution. Both dialogue and discussion were complementary processes. Bohm (1996) noted that different opinions among people are based on variations in their past experiences. This diversity of perspectives can be a rich source of information.

Collaboration was defined as the "synergistic relationship from when two or more entities working together produce something much greater than the sum of their abilities and contributions (Sanker, 2012, p. 3). Collaboration with colleagues provides feedback, introduces new ideas, and challenges conventional thinking leading to learning and improved performance (Chace, 2014; Clark & Mayer, 2011; de Vries et al., 2013). Also, collaboration has demonstrated to promote more favorable attitudes to learning and higher levels of motivation toward learning and performance (Chace, 2014). While there is much research substantiating the positive impact of collaboration, Cross and Gray (2013) warn that collaborative overload may have some adverse impact on decision-making and performance. Nonetheless, collaboration within the context of a team environment has the potential to improve learning and performance. Davidson and Major (2014) noted that, while research on collaborative learning was not robust, there were some significant findings. For example, collaborative learning appeared to have a positive impact on learning outcomes, an openness to diversity, and higher levels of engagement.

A study by Hughes, Williams, and Ren (2012) viewed collaboration as a process of partnering with others. Their study identified 16 essential elements of collaboration. The most important aspect of collaboration was the prospect of open dialogue. In addition, they viewed collaboration as an effective means of problem solving and information sharing. This is consistent with Bohm's perspective where dialogue and discussion entailed a stream of interactions between members of a team or group through which emerged some new understanding. The purpose was to go beyond one individual's understanding by exploring complex issues from several different directions (Bohm, 1996). Davidson and Major (2014) made the distinction between cooperative learning and collaborative learning. In cooperative learning, the focus is on working together in an interdependent manner. On the other hand, collaborative learning is focused "on working with each other (but not necessarily interdependently) toward the same goal" (Davidison & Major, 2014, p. 21). This perspective is consistent with the findings of Hughes, William, & Ren (2012) where they found that sharing a common goal was an essential component of the collaborative process. Senge (2006) explained how important having a shared vision was to organizational and team learning.

Besides collaboration, coaching is another form of social interaction within the context of a team that can lead to significant learning and performance gains. While there are many definitions of coaching, it can be viewed as a structured process of human development focusing on the "interaction and the use of appropriate strategies, tools and techniques to promote desirable and sustainable change" (Bachkirova, Cox, & Clutterbuck, 2010, p. 1) within an individual. As it is with collaboration, setting clear, specific, and personalized goals is essential to the coaching process (Cavanaugh & Grant, 2010; Goldman, Wesner, & Karnchanomai, 2013; Kubica & LaForest, 2014; Latham, Ford, & Tzabbar, 2012). From a cognitive behavioral coaching perspective, the main goals of coaching center around achieving realistic goals, facilitating self-awareness, equipping people with better thinking and behavioral skills, and improving one's ability to self-regulate and self-coach (Williams & Edgerton, 2010). Coaching is an ongoing partnership with the aim of achieving targeted outcomes. A study by du Toit and Reissner (2012) yielded the conclusion that without exceptionamong study participants, coaching was the most significant element leading to individual and group learning. Participants attributed a high level of importance to both team and individual learning that took place

through coaching. It appears that coaching provided a substantial bridge between team development, individual development, and increased performance.

Studies consistently demonstrated that practice, feedback, and coaching can lead to significant improvements in learning and performance (Evers, Brouwers, & Tomic, 2006; Akalin & Sucuoglu, 2015; Wlodkowski, 2008; Wright, 2005). Through engagement in work projects, these three activities are inextricably linked to each other. Project work affords individuals the opportunity to apply their knowledge and skills in achieving an intended outcome. Coaching is the means by which they receive feedback about the efficacy and quality of their work. It, typically, reflects a one-on-one experience between the coach and client to facilitate learning and behavioral change (Agarwal, Angst, & Magni, 2009; Ellinger, Ellinger, Bachrach, Wang, & Elmadaŭ Baş, 2011). By focusing on the individual, coaching interventions can be precisely targeted and executed. Developmental coaching is not episodic but rather ongoing as the frequency of coaching interactions tends to influence the performance of clients Agarwal et al. (2009). Coaching persists throughout the course of a project. Additionally, from the perspective of selfdetermination theory, coaching plays a significant role in increasing one's sense of autonomy, competence, and one's ability to connect with others, such as those within a team (Sammut, 2014; Spence & Oades, 2011).

Coaching can be highly effective though it can also be constrained by the lack of a supportive environment. For example, developing a trusting relationship between coach and client is a quintessential condition for effective coaching. Establishing a mutually trusting and supportive relationship, where the client feels safe, is an essential function of
a coach (Gatling, 2014; Hughes, Williams, & Ren, 2012; Spencer & Oades, 2011; Wright, 2005). A team environment can provide a supportive and trusting environment that enables effective collaboration and coaching.

Learning from others is a vital part of work-based learning (Lombard & Eichinger, 2011; Raelin, 2008). Illeris (2011) maintained that "learning is fundamentally to be viewed as a social process" (p. 11). Dialogue, discussion, and feedback are socially interactive processes that serve to drive learning within a work environment. It is with this in mind that coaching and collaboration are foundational, along with work projects, to workforce learning and performance. Dialogue, discussion, collaboration, and coaching have, thus far, been reviewed. Now, the focus will be on the role of feedback in the process of learning and development.

Feedback. Within the context of work, feedback is critical to improving individual learning and performance (Betz, 2013; Mulder & Ellinger, 2013). It is a term that may be conceptualized as the process of providing someone with information regarding the level of their learning and performance (Agarwal et al., 2009; Hattie & Timperley, 2007). Feedback can provide a worker with information as to whether or not they understand a concept or process and it can provide information as to their capacity to perform certain tasks or functions to a level that is acceptable. It is information that can identify errors thus enabling an individual to take corrective action. Feedback is essential to the human need for survival as it promotes a feeling of being in control. Receiving information about "one's learning and behavior significantly contributes to one's sense of control" (Wlodkowski, 2008, p. 20) and is vital to intrinsic motivation, learning, and

performance. In Wlodkowski's estimation feedback is "probably the most important communication" (p. 313) that managers and peers can regularly use to enhance competency and performance. It is a critical component of any learning process because it allows learners to reduce the discrepancy between actual and desired knowledge (Butler, Godbole, & Marsh, 2012). Research has demonstrated that through participation in self-assessment activities, individuals become more meaningfully engaged thru feedback they receive (Sendziuk, 2010).

Elsdon (2010) was succinct in his statement that a lot of feedback from multiple sources, such as peers and managers, are necessary to ensure successful outcomes. Researchers have learned that self-evaluations can be highly unreliable unless there is some level of verification from other sources. Feedback from work alone does not provide a sufficient of information to determine the efficacy of the work (Elsdon, 2010). For example, after delivering a training course, a trainer may receive information on how many people were trained or the percent of individuals who passed a test. But, this feedback does not inform the trainer how effective the training materials or the learning experiences were. Such feedback would not inform the trainer regarding the efficacy of the design and development process used in the construction of the course. Sargeant, Mann, & van der Vleuten (2008) recognized that multiple sources of feedback, used to improve performance, "should inform self-assessment" (p. 1). The premise of multisource feedback is that different individuals observing the same person's work provide different perspectives and, therefore, more comprehensive feedback (Mann 2010). Other research has demonstrated that feedback from peers, managers, and

instructors was an effective means of providing individuals with reliable information that led to improvements in learning and performance (Agarwal et al., 2009; Campbell et al., 2001; Moen & Skaalvik, 2009). Self-assessments, based on multiple sources of feedback, were shown to facilitate the development of critical thinking skills, which resulted in higher levels of learning (Campbell et al., 2001; Eddins, Kirk, Hooten, & Russell, 2013). Feedback from others such as stakeholders, managers, and peers is an integral part of learning, motivation, and performance improvement.

Elsdon (2010) indicated that feedback significantly influences the capacity of an individual to persevere in completing a task or project in the face of difficulty in two ways. First, not all feedback is equal. Individuals assign varying degrees of importance to different sources of information. For example, some individuals may place more emphasis on feedback received from their managers than from peers or learners. While for others, the reverse is true. Nonetheless, whatever the external source of feedback, albeit a coach, peer, or manager, it must be perceived as being credible (Sargeant et al., 2008; Watling, Driessen, van der Vleuten, & Lingard, 2012). A study by Hagen and Aguilar (2012) demonstrated the importance of coaching expertise to team learning. As they stated, their "results reveal that for team members, coaching expertise contributed the most" (p. 381) to team learning. Second, the frequency or the intensity of feedback that is needed to sustain a person through challenges may vary from one person to another. Supporting Elsdon's contention, Agarwal et al. (2009) noted that intense coaching influences an individual's level of performance. What may be a satisfactory level of feedback intensity for one person may not be the same for another person.

Consider that a person with a relatively high sense of self-efficacy may require less frequent feedback than an individual with a lower sense of self-efficacy. It should be noted, however, that regardless of one's level of self-efficacy, feedback should be ongoing and sustained to ensure a successful outcome (Elsdon, 2010).

Organizational theory, traditionally, suggests that individuals are rational agents seeking to maximize positive outcomes through performance feedback (Jordon & Audia, 2013). People set performance goals and notice if their performance exceeded or fell short of them. If outcomes exceeded expectations, they tended to decrease their focus on finding alternative courses of action and on improving performance. On the other hand, if they achieved less the expected, then they tended to identify impediments to their performance and take deliberate actions to improve it. Feedback, therefore, is a consequence of performance (Hattie & Timperley, 2007) because it helps a person to identify impediments to past performance and alternative solutions to overcome those barriers. The emphasis is on individuals taking a rational problem-solving approach to improving performance through the use of feedback.

Purposeful Learning and Development

Through the comments of study participants, the role of purposefulness in learning and performance is made abundantly clear. Billett (2001b) noted that a critical concern in workplace learning is developing purposeful knowledge and skills that can be immediately applied to executing the functions and responsibilities of their job. The responses of study participants revealed a clear relationship between learning and their desire to engage in new roles or expanded roles. Also, learning for the purpose of increasing their level of competency and improving their performance was also quite evident. The developmental goals individuals set for themselves were reflective of their sense of purpose as it related to learning and development. Also, their assessment of their competency level was reflective of their sense of purpose. Through self-assessment, people learn to self-correct and self-regulate (Billett, 2001b). Research has demonstrated that improvements in self-assessments correlated with improved learning and job performance (Brown, Sitzmann, & Bauer, 2010). Self-assessment is not a random occurrence. Several studies suggested that self-assessment is a deliberate and purposeful process (Lockyer et al., 2011; Mann, 2010; Sargeant et al., 2008). To explore purposefulness, I will examine the concepts of meaning, goals, and self-assessments as reflected in literature.

Meaning. As Wlodkowski (2008) stated, people "want to matter" (p. 309), and it is the desire to matter that enhances motivation and engagement in workplace activities. By working on projects, individuals have the opportunity and the motivation to learn specific job-relevant skills and apply them to real-world projects. Learning coupled with the capacity to apply what they have learned, while addressing an authentic problem or issue, adds meaning to both the learning process and to work experiences. When examining the importance of engaging in real-world projects as a means of learning, Billett (2010) wrote: "At the heart of effective work and learning practices is the conduct of work that is salient and meaningful for individuals' sense of self and identity" (p. 13). It is the act of performing and having the capacity to have an impact on organizational effectiveness that workers find meaningful (Chalfsky, 2010).

Research consistently supported Knowles's assumption that individuals pursue learning opportunities leading to the acquisition of knowledge and skills enabling them to satisfy some need (Wlodkowski, 2008). When this occurs, the element of meaning is contained within the work experience. Chalfsky (2010), in promoting his meaningful work model, recognized that developing one's potential and pursuing continuous growth through engagement in work activities contributed to a more meaningful work environment. Individuals interpret and derive meaning from their experiences in their own ways (Rogers, 1989). Within the workplace, as people engage in projects and pursue goals that having meaning for them, they learn and acquire the requisite skills to accomplish those objectives (Knowles, Holton, & Swanson, 2005). For the most part, meaningful goals and competencies are inherent within the framework of work-based learning. The power of learning, through engagement in work projects, resides in the capacity of projects to provide experiences that offer an opportunity for meaningful learning and the development of desired competencies. Expertise is embedded with meaning relative to the knowledge and skills derived from becoming a full participant (Billett, 2010). Pariticpating in work-related projects, in pursuit of desired outcomes, adds meaning and purpose to the process of learning and professional development. This relationship is important, especially, when engagement in work projects and learning are not viewed as separate or discrete processes.

Another component of Chalfsky's meaningful work model was mastering one's performance (Chalfsky, 2010). Meaning, according to Chalfsky, could be found in the act of performing effectively toward the end of solving a real world problem and improving

an organization's effectiveness. It was not the mere accomplishment of an outcome that was meaningful. In order, therefore, for work experiences to be meaningful, employees need to develop the competencies that enable them to perform essential functions necessary to yield impactful outcomes. Work-based learning is performance based. It centers on tasks performed on the job and it is problem-based to the extent that it focuses on solving a real-world problem or issue (Moore, 2010). For workers to solve problems through their performance on the job, they must develop the competencies necessary to do so. Meaning, therefore, is embedded in the process of acquiring knowledge and skills and applying them to the successful execution of functions that leads to desired outcomes.

Goals. While continuing professional development (CPD) plays a significant role in maintaining and improving performance (Brekelmans, Poell, & van Wijk, 2012), wellarticulated goals have a positive impact on professional development. Organizational goals require certain functions to be performed to achieve them. Both the outcomes and structure of on-the-job learning (Billett, 2001c) are influenced by the goals and functions performed by work teams. Workplace learning is a process based on the goal-oriented activities that promote and qualify learning (Illeris, 2011). Knowles, Holton III, and Swanson (2005) have long established the pragmatic nature of adult learners. Adults engage in targeted learning activities to acquire what they need to know when they need to know it (Weststar, 2009). A study of self-regulation in the workplace by Margaryan, Littlejohn, and Milligan (2013) revealed that learning goals were "driven by organizational factors, mainly by work tasks or job role requirements" (p. 252). In other words, workplace learning was tightly integrated with work projects and activities. The work environment engages workers ingoal-directed activities that facilitate learning. Employeeslearn through constant engagement in goal-directed workplace activities. Work projects, according to Illeris (2011), needed to incorporate specific learning goals to make explicit targeted learning opportunities and the focus of learning during a project. Through this process, learning could be pursued in a structured, deliberate, and authentic manner (Billett, 2001b; Illeris, 2011; & Weststar, 2009).

An abundance of research indicated that specific and challenging learning and performance goals positively impacted performance (Crossley, Cooper, & Wernsing, 2013; Grant Halvorson, 2010; Kleingeld, van Mierlo, & Arends, 2011). Locke and Latham (2002), wrote, "We found a positive, linear function in that the highest or most challenging goals produced the highest levels of effort and performance" (p. 706). When people precisely decide what they want to accomplish and how they will fulfill their goals, they establish powerful triggers in the mind predisposing them toward action (Grant Halvorson, 2014). There are over 1,000 studies demonstrated that specific and challenging performance goals increase a person's performance (Seijts & Latham, 2011). The rationale for the efficacy of specific but difficult goals is quite straightforward. First, the specificity of objectives informs people what is expected of them thus reducing ambiguity (Grant Halvorson, 2010; Locke & Latham, 2002). If what a person is striving for is too vague, it is easy to become distracted and lose sight of one's targeted outcome. Second, challenging goals can have an energizing effect by requiring individuals to put forth greater effort (Grant Halvorson, 2010; Locke & Latham, 2002). As to the quality of difficulty, a crucial qualifier is difficult but possible. The more difficult a goal, the more concentrated effort, focus, and commitment is necessary to achieve the goal. If the goal is not challenging, a person may become quickly bored or disinterested thus abandoning the pursuit of a goal. Success in meeting a challenging goal is gratifying, rewarding, and leads to a greater sense of self-satisfaction and well-being (Grant Halvorson, 2010). Goals, therefore, must be achievable by the individuals pursuing them.

While the rationale for specific and challenging goals is somewhat straightforward, understanding the impact of different types of goals on learning and performance is less so. Recent research has revealed a much more complicated picture of goals and their impact (Grant & Dweck, 2003). For example, Kleingeld, van Mierlo, and Arends (2011) found that moderately difficult and easy nonspecific goals have some limited performance benefits. While both learning and performance have "been shown to predict real-world performance" (Grant & Dweck, 2003, p. 541), the conditions under which these goals are more or less effective vary.

Learning goals have an impact on improving performance on complex tasks in those situations where a person lacks the requisite knowledge and skills to perform effectively (Grant & Dweck, 2003; Brown & Latham, 2002). Learning goals are valid when an individual must discover and develop the capacity to perform a task. They tend to predict their ability to cope with challenges, sustain motivation, and meet higher levels of achievement based on the challenges they are to confront (Grant & Dweck, 2003). Further, learning goals that emphasize understanding and growth "were shown to facilitate persistence and mastery-oriented behaviors" (Grant & Dweck, 2003, p. 541), even when perceived abilities were low. Mastery goals, as do learning goals, correspond with the desire to grow, develop, and improve one's skills (Darnon, Dompnier, Gilliéron, & Butera, 2010). Learning and mastery goals are often regarded as conceptually equivalent.

In contrast, performance goals tend to be effective when people already have the knowledge, skills, and ability to perform effectively a function (Brown & Latham, 2002; Seijts & Latham, 2011). Grant Halvorson (2010) found in study after study that those pursuing performance goals and willing to work hard to achieve desired outcomes tend to become high achievers. Where learning and mastery goals focused on growth and development, performance goals attended "to normative standards for achievement and seek public approval of their competencies" (p.20). Self-validation, demonstrating competency, and satisfying the need for achievement are some of the underlying motives of those who pursue performance goals (Grant Halvorson, 2010; Heidemeier, 2014). Although performance goals can be very motivating, they also have a double-edged quality to them. As goals become more difficult, perceived self-worth is jeopardized. People tend to be motivated by performance goals when they believe they are going to do well (Grant Halvorson, 2010). When challenges are introduced and difficulty is increased, expectations for success are understandably reduced impacting one's motivation and capacity to persist when problems arise.

Both learning or mastery goals and performance goals, once postulated to be incompatible, are now viewed as effective motivators under the right circumstances (Darnon, et al., 2010; Grant Halvorson, 2010). A multiple goal approach can be highly effective as learning and mastery goals may be used to promote achievement of performance goals. As noted by Darnon et al. (2010), "mastery and performance goals are not necessarily independent because to perform, one may need to master the task" (p. 213). An analysis of self-regulation in the workplace, by Margaryan et al. (2013), revealed two key factors stimulating the formation of learning goals in the workplace: task and role requirements and professional development. In formulating learning goals, Margaryan et al. (2013) found that individuals learned those things necessary to achieve the short-term goals of their immediate work projects while also striving to meet their longer-term career development goals. It is has been postulated that the combination of mastery goals, also referred to as learning or process goals, and performance or outcome goals yield better results than singular goals (Darnon et al., 2010; Margaryan et al., 2013), such as setting only mastery or only performance goals. An individual can be motivated to embrace learning and mastery goals with the ultimate objective of achieving performance goals.

In their study of self-regulation in the workplace, Margaryan et al. (2013) identified two key factors as influencing the formation of learning goals in the workplace: (a) learning in order to perform the tasks required by various work projects and (b) learning that serves individual career development desires. With learning in the workplace primarily driven by work projects and activities, the goals are more focused on performance and outcomes than they are with learning and mastery. It is important to remember, both performance and mastery are much more complimentary than they are antithetical. Learning and mastery, in the service of achieving performance, are highly consistent with the purpose of workplace learning.

Self-assessment and self-regulation. With a constantly changing business environment, there is a greater emphasis placed on employees assuming responsibility for their own learning, an increasing reliance on informal learning, and a greater need for self-regulation and self-assessment among employees. Reflective of this movement, for employees to take a more active role in their own professional development, is the 70-20-10 model. Developed in the 1980's by McCall, Eichinger, and Lombardo (Lombardo & Eichinger, 2011), it maintains that 70% of workplace learning occurs through on-the-job experiences, 20% through interactions with others (i.e., coaching, peer collaboration), and 10% through formal training. Though the model is widely supported, the "research basis for the 70-20-10 equation is not particularly strong" (Forman & Keen, 2012, p. 38). Nonetheless, it is a widely advocated approach that places the vast majority of professional development squarely in the laps of employees. As workers assume more responsibility for their own learning and development, self-regulation and selfassessment are increasingly important.

Self-regulation and self-assessment are processes intrinsic to professional development (Sargeant et al., 2008). It is self-evidence, according to Sargeant et al. (2008), it is self-evident that professionals engage in self-assessment to guide their self-regulation of learning and performance, as is typically expected of them. Increasingly employees are expected to possess the capacity to accurately evaluate their strengths and weaknesses (Mann, 2010; Sitzmann & Ely, 2011) to determine what they need to know

and where they can access the information necessary to improve their performance (Duffy & Holmboe, 2009). Most workers, however, develop their skills through trial-anderror (Lohman, 2005). Doing so, requires the ability to self-assess one's level knowledge and performance.

Self-assessment, therefore, should be "strategically used in continuing professional development" (Duffy & Holmboe, 2009, p. 1139) to facilitate an individual's capacity to (a) assess and develop a judgment regarding one's level of competence and performance and (b) to identify and close performance gaps. Duffy and Holmboe (2009) view self-assessments as a process of self-evaluation or guided selfaudit requiring individuals to form judgments about their level of knowledge, competence, or performance. Those judgments can then be used to direct one's professional development. In this manner, self-assessments can be a valuable learning activity (Campbell, Motherbaugh, Brammer, & Taylor, 2001).

It is widely recognized that self-assessing one's level of knowledge (Sitzman, Ely, Brown, & Bauer, 2010) and performance (Armstrong & Fukami, 2010) is challenging;and there is an abundance of support for the beneficial aspects of effective self-assessment. Billett (2001b) suggested that an important element of professional growth is the capacity to extend one's vocational knowledge by developing self-assessing and self-regulating skills. He noted that adaptive change often occurs when there is a level of disequilibrium between one's current state of knowledge and skills and what is required to achieve desired outcomes. Unless an individual is capable of self-assessment, there may not be an awareness of the disequilibrium between one's current and required abilities and a person may not engage in the activities necessary to improve their learning or performance. Self-assessments have been demonstrated to be strongly correlated with motivation (Mann, 2010; Sitzman et al., 2010). In part, it is for this reason Billett (2001b) advised that self-assessment of completed tasks is an essential aspect of expert performance.

Learning is a necessary requisite for performance. From a learning perspective, self-assessment helps individuals to extract from their experiences new knowledge and understanding they find meaningful to their development (Wlodkowski, 2008). There are three coexisting perspectives of self-assessments (Mann, 2010). First, self-assessment is the ability, which can be learned, to reflect on one's performance and extract insights regarding the efficacy of one's actions. Second, self-assessment is a process where one assumes the responsibility of looking to others for feedback and information that can be used to increase ones learning and performance. Third, self-assessment is a process of self-monitoring that occurs while engaged in learning or performing a task such that immediate corrections can be made if necessary to optimize learning and performance. Through the lens of these three perspectives, it can be seen how "Self-assessment not only makes us more aware of what we learn, but it also gives us greater control over what we learn" (Wlodkowski, 2008, p. 345). On-going reflection and assessment is essential to the process of learning.

Self-assessments have demonstrated to be strongly correlated with motivation (Mann, 2010; Sitzman et al., 2010), and they engender opportunities for increasing competency through feedback and reflection (Wlodkowski, 2008). Some studies have

demonstrated the capacity and willingness of individuals to engage in self-assessing practices to performance (Senziuk, 2010; Tzeng, 2004). This tendency is largely due to the process of receiving external feedback from others, reflecting on that external feedback in combination with internal self-assessments, and deciding on and executing a course of action.

The process of self-assessment combines the ability to reflect on experiences, seeking feedback from others, and self-monitoring. Self-assessment, therefore, depends on both internal and external factors (Gönüllü & Artar, 2014). It can have a positive impact on both learning and performance by influencing self-regulation. Mann (2010) noted that self-assessment was foundational to "being a self-regulating professional" (p. 305). Self-regulation (SR) is defined as "processes that enable an individual to guide his or her goal-directed activities of time and across changing circumstances, including modulation of thought, affect, and behavior" (Porath & Bateman, 2006, p. 185). According to Porath and Bateman (2006), the goal construct is a vital component of the efficacy of self-regulation. For example, they were able to demonstrate that selfregulatory strategies related to learning goals were highly predictive of proactive behaviors directed toward goal attainment, while self-regulatory strategies related to performance goals were predictive of feedback seeking and proactive behaviors. Proactive actions, therefore, are "known to predict important performance outcomes" (Porath & Bateman, 2006, p. 186). Their study demonstrated that self-regulatory tactics mediated the relationship between learning and performance goals to performance.

This finding is important to the extent that it demonstrated the capacity of self-regulatory processes to drive goal-directed outcomes.

The purpose of self-regulation is to further the interests of individuals through the capacity to manage their thoughts, behaviors, and impulses in such a manner so as toguide their goal-directed actions (Sitzmann & Ely, 2011). Across multiple theories, a consistent theme is that goal setting triggers self-regulation (Sitzman & Ely, 2011) thus reinforcing the significance of goal setting relative to the process of self-regulation. For example, Burnette, O'Boyle, VanEpps, Pollack, and Finkel (2013) defined three core processes associated with self-regulation. The first was goal setting, which involved defining desired end states. Next was goal operating which was the process of discerning what actions were most likely to yield success and executing those them. The third core process was goal monitoring that was the tracking of progress toward achieving desired outcomes and, if necessary, making course adjustments as appropriate. These processes clearly demonstrate that SR and goals are inextricably linked.

In their study of self-regulation in the workplace, Margaryan et al. (2013) determined that two key factors influenced the formation of learning goals in the workplace: (a) learning in order to perform the tasks required by various work projects and (b) learning that serves individual career development desires. While planning and attaining goals, Margaryan et al. (2013) found that study participants relied on the feedback and input of others, primarily managers, coaches, and peers. Self-regulated learning, from their perspective, was a social process that occurred largely within the context of work projects and activities. Another finding of Margaryan et al. (2013) was that there was "a paucity of deliberate, systematic self-reflection on learning" (p. 255). It was difficult, they note, to distinguish reflections on work tasks from reflections on learning due to the close interweaving of work and learning. This was an important finding given the primacy of reflection to self-regulation as ascribed by many researchers (Labuhn, Zimmerman, & Hasselhorn, 2010; Liu, Wang, Liao, & Shi, 2014; Sitzmann & Ely, 2011). Feedback, dialogue, and discussion, which takes place through coaching and collaboration, stimulates reflection as a normal part of work related activities.

Structured Informal Learning

Throughout this study participants expressed their desire to advance their learning to increase their level of competency to perform better certain functions. The alignment of work experiences to learning and the development of desired competencies, which lead to performance improvements, is not an ad hoc process. It requires some level of structure. It is an error to believe that learning will result by doing (Billett, 2001b). Before addressing the issue of structure directly, this section explores the concepts of competency and functional diversity as illustrations of the need for structure. For example, skill in the performance of one function does not presume competency in the fulfilment of another function. Similarly, self-efficacy, just as competency, is context specific. Engaging individuals in work projects that afford some level of functional diversity has the potential for expanding their skill and self-efficacy. Structuring work experiencesfacilitates informal workplace learning.

Competency. Self-determination theory (SDT) maintains that the need for competence, relatedness, and autonomy impacts an individual's level of motivation,

engagement in activities, and performance (Greguras & Diefendorff, 2009; Ryan & Deci, 2000). Competency is viewed as the capacity of an individual to achieve desired outcomes (Greguaras & Diefendorff, 2009). The drive for competency "is not one that is acquired but one that already exists and can be strengthened or weakened through learning experiences" (Wlodkowski, 2008, p.310). Assuming this to be true, it is essential for work environments to be structured so as to promote effective learning experiences. According to SDT, it is the satisfaction of a person's need for competence that increases autonomous motivation and leads to improved performance (Greguras & Diefendorff, 2009).

The awareness of competence is a powerful influence on an individual's performance (Wlodkowski, 2008). To feel and be competent, a person must be able to apply their knowledge, skills, and attributes to achieving a desired outcome (Knud, 2011). Mastery experiences are viewed as "direct experiences of success and failure in given tasks" (Wlodkowski, 2008, p. 188) and are the most powerful influences of self-efficacy. For Bandura (1997), mastery was the most influential source of self-efficacy because it provided "the most authentic evidence" of whether or not an individual can achieve desired outcomes. As individuals become engaged in projects, the a priori drive to competency promotes learning with the result of improved performance.

Argyris (1996) stated that the more success people experience, the stronger their sense of efficacy, competency, and self-esteem. Self-efficacy is the belief that one has the capability to execute a course of action leading to a desired outcome (Bandura, 1997). It is a "social cognition construct (social learning) which refers to a person's self- beliefs in

his or her ability to perform specific tasks" (Appelbaum & Hare, 1996, p. 33). Successful performance increases one's level of perceived self-efficacy. Research has demonstrated that high levels of self-efficacy positively impacted learning and performance. The more competent an individual and the higher a person's level of mastery then the greater will be their sense of self-efficacy and their level of performance.

Self-efficacy had been shown to influence the initiation, intensity, and persistence of actions undertaken by individuals (Paglis, 2010). Those who have a high sense of selfefficacy engaged in more challenging tasks, expended more effort in the pursuit of achieving meaningful goals, and persevered longer and with greater tenacity when overcoming obstacles. These traits, in turn, lead to higher levels of learning and performance. Commenting on Bandura's perspective of self-efficacy, Paglis (2010) wrote: "Bandura's self-efficacy construct has been the subject of extensive research over the past 30 years, with meta-analysis supporting it positive relationship with performance" (p. 771). A study by Hines III & Kritsonis (2010) revealed that teacher self-efficacy had a positive effect on student scores. The findings demonstrated that students with "high efficacious teachers earned higher test scores" (p. 1). A study by Malliari, Korobili, and Togia (2012) demonstrated that the self-efficacy, in combination with competency, was positively related to the frequency specific tasks were performed. In addition, they found that self-efficacy and competence led to higher levels of performance. A competent person is one who possesses the knowledge, skills, and attributes necessary for effective on-the-job performance (Gonczi, 2001).

Swing (2010) suggested that achieving higher levels of performance requires sustained and disciplined learning and practice. The opportunities for this continued learning and practice occurs when working on assigned work projects. According to selfdetermination theory, "satisfying one's need for competence increases one's autonomous motivation, and this autonomous motivation leads to optimal performance" (Greguras & Diefendorff, 2009). Illeris (2011) made the assumption that the greater the level of autonomy, the greater will be the learning possibilities that are contained in the work to be performed. Competencies, however, are related to particular situations and contexts (Illeris, 2011). A competent person, from the perspective of Gonczi (2001), is one who "possesses the attributes necessary for job performance to the appropriate standard" (p. 182). Competency in one context does not presume competency in another. For example, an instructor who may be very competent in building relationships with learners but less competent in identifying and closing gaps in learning. The Association for Talent Development (2014) developed a competency model for the talent development profession. Within the instructional delivery domain, there were eight discrete skills defined. Throughout the talent development profession, ten functional domains were identified. The broader the scope of an individual's skills, the better equipped they will be to adjust to and accommodate changes in the business environment. As individuals assume multiple roles, within their work environment, they seek to be recognized for the expertise and skills acquired relative to those roles (Yeo & Li, 2011).

Functional diversity. Ibarra (2003) suggested that individuals learn about their work identities by engaging in different roles and work activities. People learn who they

are, within the context of work, by first engaging in a range of functions that can serve as the basis for reflections on work identity. She also makes the point that the "more vivid these possible selves become, the more they motivate us" (Ibarra, 2003, p. 38). Through engagement with a diversity of workplace experiences, employees are able to discover what types of duties, functions, and roles are the best fit for them.

Flexibility if an often repeated theme among desired workplace attributes (Fenwick, 2001). The need for workers to be flexible and to have the capacity to be responsive to evolving workplace challenges is essential to individual, team, and organizational performance. In that the types of workplace activities that engage people influence what they do and what they learn (Billett, 2001b), engaging people in a variety of projects increases operational flexibility. As associates participate in a broader range of projects, requiring different skill sets, they expand their work experiences, increase the range of learning opportunities, and extend their competency. In doing so, workers improve the dexterity with which they can respond to a wider array of challenges and problems. This flexibility furthers the capacity of an organization to adjust to changing needs (Elsdon, 2010). Elsdon (2010) suggested a significant degree workforce strength resides in the knowledge, skills, practices, and shared values embedded in the workforce. As workers possess the range of skills enabling them to perform a variety of functions, organizations are better able to adapt to constantly changing needs.

Knowledge workers, such as corporate trainers, are hired to bring their knowledge and abilities to bear on a range of projects requiring different skill sets (Chalfsky, 2010). This condition requires employees to have more diverse skill sets enabling them to engage in appropriate action when called upon. Research revealed, for example, the more workers experience job diversity, the stronger was their problems solving abilities (Chu & Lai, 2011) and their on-the-job performance (Simons &Rowland, 2011). Mannix and Neals (2005) argued that teams with greater levels functional diversity were better at interacting more effectively, sharing information, and performing better than teams with a narrower scope functional diversity. This makes sense given the premise that the types of activities and projects performed by workers influences what they learn and what they will be able to do as a consequence of learning. If workers become engaged in a wider diversity of projects, requiring them to perform a greater range of functions, they will learn more thus extending their capabilities. A training associate, who is only engaged in presenting face-to-face classes, may not have the opportunity to develop the knowledge and skills required to deliver virtual training.

It appears that functional diversity increases efficiency and productivity (Molleman & Slomp, 1999). To be competent, an individual must be able to apply their professional knowledge and other attributes (Knud, 2011). As people are called upon to take on more responsibilities and perform a greater diversity of functions, possessing a greater variety of skills is imperative. Denied the opportunity to participant in a range of projects, requiring a diversity of duties to be performed, the capacity to expand one's scope of competencies may be severely diminished.

It is important to note that it is not functional diversity alone that leads to better learning and performance (Mannix & Neals, 2005). Functional diversity provides opportunities to expand one's learning and competencies. Performance improvement derives from competency diversity (Hoan, 2009). As previously mentioned, competency is context specific. Both the work situation and social interactions, confronted by an individual, impact the quality of workplace learning experiences (Illeris, 2011). By increasing one's exposure to a diversity of work projects, the opportunities for learning and competency expansion is also increased. It is not enough for an individual to be merely exposed to a range of projects. Experience alone does not always lead to learning (Guthrie & Jones, 2012). In work-based learning, the nature of the work to be performed constitutes a good part of the subject matter of the lesson (Raelin, 2008). But, as in all lessons there needs to be a focus on learning and structure to the learning process (Billett, 2001b).

Structuring workplace learning. The mere participation in workplace activities does not guarantee effective or productive learning. It is inadequate to believe that learning simply by doing will yield effective results (Billett, 2001b). While experience underlies all learning, it does not necessarily lead to learning (Beard & Wilson, 2010). Non-learning can occur if a person responds to a problem or situation in a routine and automatic manner (Lohman, 2005). In these circumstances, the individual does not think through their response and, instead, merely reacts non-reflexively. Besides non-learning, individuals may also learn or acquire knowledge that is counterproductive. Workers may interpret and deem as meaningful observations and actions of others that are contrary to effective practice. They may construe meaning in ways that are consistent in their personal perspectives rather than what is practical for on-the-job performance or what is in conformity with the intentions of those who engaged in certain actions (Billett, 2006).

Informal learning that is not critically examined "is subject to a high degree of misinterpretation" (Marsick & Volpe, 1999, p. 87). Marksick (2006) noted that people who learn informally may also not fully understand nor comprehend what they learned from experiences. Adding structure to the process of workplace learning increases the probability individuals will be able to focus their attention, correctly interpret, and learning those things most critical to improving performance.

Structuring workplace learning experiences is vital to optimizing learning and performance. It is for this reason that many organizational theorists concentrate on the systems and structures that facilitate the learning of individuals within an organizational setting (Keegan & Turner, 2001). Billett (2001c) noted that particular work environments offer guidance and experiences premised on the goals to be attained and the work functions necessary to achieve them. In this way, work activities are structured by the everyday requirements of the business. It is argued, therefore, that workplace learning experiences need to be structured for learning and performance improvement, required to achieve business outcomes, to occur (Billett, 2001b; Moore, 2010). If adding structure to workplace experiences can improve learning, then training leaders need to identify what factors can lead to a better structure. Understanding the way people learn within the work environment is essential to determine how to structure workplace learning experiences (Billett, 2001b). Work environments are structured and goal-directed with purposeful processes, procedures, and interactions (Billett, 2002). Project-based learning experiences need to reflect these real-world structures if they are to be effective (Garrick & Clegg, 2001). According to some researchers, project-based learning is viewed as structured and

non-formal (Hedin, 2010). Though it is structured, it tends to be less structured than is formal training. Non-formal training occurs within the typical workflow of day-to-day activities while formal training requires a person to spend time, apart from daily work activities, attending a course or class. Whether work-based learning is referred to as non-formal or informal, Billett (2002) argued that such terms tend to constrain understanding how learning occurs in the workplace. Project-based, workplace, learning are not ad hoc interventions. Instead, it is a structured process leading to purposeful and well-targeted outcomes.

A study by Dornan, Boshuizen, and Scherpbrier (2007) attempted to link experience-based learning practices of medical students with the outcomes of workplace learning. They identified several factors as being part of the core learning processes engaged in by participants: participation in activities that had real world results (i.e., ,contributing to patient care); social interactions with doctors, nurses, and peers; clearly defined learning objectives; states of mind that included self-identity, confidence, and motivation; and competencies, such as knowledge and clinical skills. Creating a workplace learning environment by purposefully controlling and synthesizing these factors was important because they influenced the quality of patient care. Structuring the workplace learning experiences, by defining learning objectives, facilitating constructive interactions, and optimizing mental states, enhanced the capacity of medical students to acquire and apply the knowledge and skills required for effective performance.

Structure is also reflected in the sequencing of workplace learning experiences. Billett (2001b) refers to the process of scaffolding, which is providing learners with opportunities to acquire requisite knowledge and skills by engaging them in work projects that are within their capacity to learn. Additionally, it captures the idea of adjustable support that can be provided as required by learners. Learning, in the context of the workplace, can be viewed as "responding to the individual's needs and preferences and being delivered just-in-time to be of use to one's work" (Raelin, 2008, p. 17). Learning, then, is always subject to the demands of the business (Illeris, 2011). To facilitate learning within this context, work activities must be sequenced in a manner that enables workers to learn and immediately apply what they've learned to perform project related activities. By doing so, work activities are structured to facilitate learning that is within the skill sets of individual workers while serving the primary purpose of the business. There are many learning theories suggesting the people learn through exposure to challenging experiences (Noe, Tews, & Dachner, 2010). But, if those challenges are beyond an individual's capacity to learn and perform adequately, the consequences can lead to diminished levels of motivation and engagement.

The flip side of scaffolding is fading, which consists of a gradual reduction of support to the point that learners can perform a function independently and satisfactorily (Billett, 2001b). It is important to keep in mind that the goal of workplace learning is not to learn but to perform. Actual on-the-job performance is the focus of workplace learning and not an understanding of what is required to perform. To be competent, an individual must be able to apply knowledge and skills in the execution of job functions that achieves business objectives (Knud, 2011). The level and duration of scaffolding and fading must be structured to fit within capabilities of workers relevant to the functions to be

performed. This process of aligning work activities with the abilities of employees requires a strategy structuring support and its gradual reduction. It is a process built on the assumption that the learner will gradually assume more responsibility for their own, independent, performance.

Implementation

This project is a white paper intended to provide customer service training managers with information and recommendations for implementing a coherent informal workplace learning strategy among their respective teams.

Resources and Supports

The primary resource and support for the implementation of a program of informal workplace learning resides with the leadership team consisting of the director and the three customer service program managers. This leadership team will guide implementation and provide ongoing support. Through sustained involvement, commitment, and by providing on-going support, this leadership team is indispensable for the successful implementation of a coherent informal learning strategy. Without their willingness to apply the recommendations of this study, any hopes for success will quickly diminish. As it is with every organization, there are distractions in the form of changing business circumstances, shifting priorities, and organizational restructuring that can throw any well-intended program off of its intended course (Cao, Chuah, Chau, Kwong, & Law, 2012).

Marquardt (2011) advises that a learning champion be appointed to serve as a cheerleader to promote sustainability, interest, and engagement in the program. The

director, or one of the three customer service program managers, may assume or be appointed to the role of program champion. A function of the learning champion will be to work with managers to identify some best practices that will facilitate improvements. In addition, a learning champion will partner with managers to overcome whatever challenges and difficulties arise. By encouraging continued dialog and discussion, the champion can sustain interest and focus on informal learning throughout the customer service training teams.

Program managers (Marquardt, 2011) are another source of support. They have responsibility for developing and executing a strategy of informal workplace learning within their respective teams. This focus affords managers the opportunity to apply the recommended approaches in a manner most meaningful to them and their teams. The role of managers is multifaceted. Overall, they plan, monitor, provide guidance, and assess learning outcomes (Cao et al., 2012). There are several things managers can do in the exercise of their roles. First, they can assign team members to projects that will facilitate growth and development. Second, they can work with team members to identify developmental objectives they want to achieve through participation in a particular project. Third, throughout the course of the project, they can monitor the progress being made to achieve the developmental goals. Fourth, also during a project, managers can provide feedback and coaching as the need arises. Fifth, managers can also encourage reflection through discussions on the project. Managers clearly play a vital role in facilitating informal learning. Another source of support is project leaders, which may be an individual's manager or a senior and highly skilled peer. Project leaders are vital to the process of project-based learning. Besides performing their duties regarding project management and training development, they keep team members focused on performing the respective responsibilities, they provided guidance and targeted feedback to team members, and they conduct team meetings. Through the team meetings, they facilitate collaboration as a means of sharing ideas, problem solving, and team learning. Through accurate feedback, dialog, discussion, and the collaborative process, the team contributes to the learning of each of its members. Working and interacting with others is a heavily relied method of learning within a team environment (Crouse et al., 2011; Hicks et al., 2007). The project leader creates conditions and mindsets conducive to the developmental team. Team Leaders, therefore, must have the technical skills, the leadership skills, and the organizational skills to make this happen.

Barriers and Potential Solutions

As with any sustained program aimed at improving learning and performance, there are potential barriers to implementing a coherent program of informal workplace learning. In summary, these barriers include: (1) lack of structured approach to informal learning, (2) lack of sustained commitment and effort by the leadership team to advance informal workplace learning, and (3) perceived time limitations. The suggestions and recommendations put forth in the project provide a solution to each of these potential barriers. The first barrier is a lack of a structure approach to informal learning. Billett (2001b) advanced the notion that it is a mistake to think that purposeful learning will occur through random acts of being engaged in some type of activities. He went on to suggest that workplace learning experiences were more effective if they were structured, goal directed, and purposeful. The recommendations, resulting from the study, and outlined in the project serve as a solution to the lack of a structured approach to informal learning, which can serve to impede informal learning withing the workplace. In addition, structure is promoted through the role structure, of a program champion, program managers, and project leaders, as advised in the study project.

The second potential barrier is the lack of sustained commitment (Ellinger & Cseh, 2007) and effort by the customer service leadership team to advance informal workplace learning within their organization and respective teams. Ellinger and Cseh (2007) noted that supervisors and managers may not commit to advancing the learning of their respective teams and, as a result, may not provide the requisite support required for sustain a program of informal learning. To be supportive of the recommendations outlined in the white paper, this leadership group must be convinced that the recommendations can be implemented within their current organizational structure and operating procedures. It is important for them to unerstand the benefits their teams can derive from the implementation of the strategies at minimal or no additional costs.

It will be necessary to provide managers with the opportunity to review the white paper; hear and discuss the bases, benefits, and potential barriers of implementing the recommendations; an opportunity to reflect on the project; and an opportunity to ask further questions before they render a decision on whether or not to proceed with the projects recommendations. Senge (2006) advanced the notion of shared vision as a discipline of a learning organization. A shared-vision, from his point-of-view, is more beneficial to an organization than are a few disparate visions promoted by individuals. It is a quality that must grow, over time, of its own accord rather than being a singularly prescribed formula to be commonly followed by members of an organization.

Finally, the third potential barrier are perceived time limitations. Serving to guide the learning and development of other may be perceived as additional workload (Cao et al., 2012) to already time constrained managers and project leads. Through the recommendations offered in the project, managers can be shown how learning can effectively occur while engaging in normal work activities. The process of shifting from a fixed, time-limited mindset to a mindset of facilitating and developing teams members begins with the process, outlined below, of informing the leadership team about the study's findings, reviewing the recommendations derived from the study, and suggesting an approach to implementing informal workplace learning.

Timeline

Discussions and implementation decisions, relating to the recommendations offered in the white paper will occur in three to four stages over the course of three to four weeks. It is important to note, however, that this timeline, consisting of three to four stages, is only a projection and will determined by the leadership team. The first stage in the process is to conduct a brief meeting with the director and the three managers to introduce the white paper, discuss the problem it addresses, and to distribute it. Of importance during this first meeting is to create an acknowledgment of the existing limitations and challenges of the 70-20-10 model, particularly those portions of the model relating to informal learning. It also provides an opportunity to prime managers by suggesting there are viable structured solutions to informal workplace learning.

Allowing approximately a week for review of the white paper, the second stage is to engage in a longer meeting with this leadership group to briefly review the white paper. Although the entire white paper will be reviewed, the focus will be on the findings and summary of the study, the recommendations, and suggestions for implementing the program, especially as they relate to the various roles and responsibilities. A secondary purpose of the review process is to discuss any questions, perspectives, and concerns of managers that may have emerged from their initial reading of the white paper.

A third meeting, stage three, will be held, approximately one week after the previous meeting, to decide if the director and the three program managers want to proceed with implementing any or all of the recommendations outlined in the white paper. Prior to making their final decision, the leadership team may have additional or follow-up questions that will need to be discussed. Part of the decision-making process will include a discussion to determine if all customer service training teams will uniformly implement an informal workplace learning program or if each team will customize the recommendations to their specific teams.

If the leadership team decides to implement some or all of the recommendations, the discussion will need to focus on the roles individuals will assume and how they may go about executing informal workplace learning within their respective teams. This discussion may require a fourth meeting depending on the preference of the leadership team.

Roles and Responsibilities of Associates

In a rapidly changing business environment, work and learning are reciprocal processes as workplace learning involves "learning to work and working to learn" (Barnett, 2001, p. 29). Consider the potential implications of Barnett's proposition about the roles of working associates. The intimate relationship, between work and learning, spawned hybrid forms of employee development combining informal and formal learning approaches. Over time, as opportunities for formal learning diminished, workers turned to informal learning methods to acquire the skills they needed to meet performance requirements. This process required associates to assume greater responsibility for their learning and development.

Probably, the most difficult and challenging role is that of the training associate who is working and learning to fulfill their designated responsibilities. Learning is unsettling in personal terms (Barnett, 2001). Often, it requires individuals to step outside of their comfort zones to engage in new experiences, learn new skills, and apply them to performing new functions. To fulfill this role of working and learning, training associates must adopt a developmental mindset and responsibility for their learning.

Evaluation

The investment, by companies, in workplace learning is substantial (Griffin, 2012). Despite the importance of evaluations to the effectiveness and sustainability of workplace learning there is a "paucity of evaluation activity" (Griffin, 2012, p. 393).

Professional development is the focus of workplace learning with the ultimate intent to improve organizational performance and competitiveness. With this in mind, it is essential that evaluations become an on-going and vital component of employee development programs. Unfortunately, as Griffin indicated, such tends not to be the case. To encourage program managers to engage in ongoing evaluation of their staff development efforts, this section offers several practitioner friendly approaches to conducting performance evaluations.

While program evaluations have a long history, the assessment of workplace learning has yet to establish itself as a distinct and settled field (Griffin, 2011a). As Griffin argues, therefore, how workplace learning should be evaluated and what particular aspects of learning should be evaluated remains to be investigated through further research and discourse. Assessments of the actual impact of workplace learning are hampered by a paucity of evaluation activity (Griffin, 2011a). Relatively few organizations carry out assessments and of those that do, the focus is on learning outcomes rather than performance outcomes. As an emergent field, there is "no consensus among academics or practitioners on the most appropriate method or methods to evaluate the impact of learning" (Griffin, 2011a, p. 843). Within this context of an unsettled and emergent field of practice, the evaluation approaches suggested in this project are intended to provide program managers with optional performance evaluation approaches. They may select one or more of the options that best suit their context and needs.

According to Geertshuis, Holmes, Geertshuis, Clancy, and Bristol (2002), having an appreciation for organizational factors increases the efficacy of evaluations. While companies may support evaluations, they are often forced to limit assessments due to the exigencies and diverse demands of the workplace. Managers may need to be very focused and selective in their evaluation efforts. Each training program manager serves a different business unit with different expectations. Training success in one context does not presume training success in another context (Griffin, 2011b). Although business unit may emphasize customer satisfaction as an element, a nother business unit may view different set of outcomes, such as reduction in error rates, as elements to be measured. Within the section, five evaluation alternatives are suggested to provide program managers with alternative evaluation approaches. In doing so, program managers can select the approach or approaches that serve them, their respective training teams, and their business partners. Outcomes, outputs, efficiency, quality, and customer satisfaction are the five options offered as approaches to evaluating performance, an indicator of the efficacy of informal workplace learning. Training program managers may select one or more of the options suggested.

A performance evaluation is recommended and outlined in the following paragraphs. The evaluation is intended to serve two purposes: (a) to evaluate the effectiveness of the work efforts of team members as they relate to the outcomes of a project and (b) to provide project team members with feedback relative to their individual efforts and contributions. There are several qualities of the suggested evaluation approach. First, the process outlined below serves both formative and summative purposes. It is a formative assessment in the sense that the information derived from the evaluation can be used to improve work-based learning efforts and it can be used by individual team members to improve their individual contributions to future projects. The recommended approach is also a summative assessment in that it examines the project's outcomes and outputs to assure their alignment with the goals of the client organization for which the project was initiated. Second, the evaluation approach is intended to be conducted on an ongoing basis for most training projects and is to be performed by the respective program managers and their training teams. Third, in that all projects are goalbased, so too is the evaluation process. Finally, the assessment incorporates qualitative and quantitative measures as deemed appropriate, for a particular project, by the program manager.

There are two components to the recommended evaluation process: the assessment framework and performance measurement. Borrowing the concept of strategic alignment from the Balanced Score Card (BSC) approach defined by Kaplan and Norton (1996) and the concept of strategic alignment from Labovitz and Rosansky (1997), a framework for evaluating workplace learning efforts can be constructed. When considering an evaluation of workplace learning, it is important to keep in mind the twofold purpose of workplace learning is to assist the business in achieving its goals and to improve the learning and performance of individual contributors.

There are four elements to the evaluation framework: goals and strategies of business organization; training and development needs of client organizations served by learning and development teams; internal learning and development goals, strategies, and
processes; and the skills and competencies required of training associates to meet the needs and expectations of the client organizations. Informal learning outcomes must align with the goals, strategies, and needs of the business organization if those outcomes are intended to contribute to the achievement of business objectives. Workplace learning professionals function within a business environment. Project-based learning involves participation in real world projects with real world impacts. The learning that occurs through involvement in these projects, the actions taken, and the results produced by the projects should align with the goals of the business. According to Kaplan and Norton (1996) a learning and growth perspective is foundational to executing the business strategy. Pangarkar and Kirkwood (2009) suggested that learning and development professionals may want to focus less on accomplishing training objectives and more attention on aligning expected results with organizational needs and strategic objectives. From the perspective of many business leaders, according to Pangarkar and Kirkwood (2009) learning professionals are too preoccupied with delivery outcomes rather than measuring effectiveness or impact. The evaluation process should begin by defining framework components to ensure the outcomes of informal learning of training staff members

The second component of the evaluation process focuses on performance measurement, which is designed to provide useful performance feedback to the individual associate and the process of workplace learning. One option to be considered is to evaluate the outcomes of the project. Outcomes represent the kinds of results that a project was intended to produce (Poister, 2010). What were the outcomes derived from the project? A business unit implementing a new software program, for example, may want to minimize disruption to service levels. Program managers may be able to compare the number of customer service calls processed prior to the project with the number of calls processed the new software and training was implemented. From an alignment perspective, were the outcomes of the project consistent with goals of the business and did they meet the articulated needs of the business?

A second option, available to managers, is to measure outputs (Poister, 2010). They represent the immediate products, services, and assets produced to meet the project objectives and the needs of the client organization. Outputs may be the number of courses developed, the number of lessons, the number of online modules versus the number of instructor-led modules, the number of instructional aids or job aids that were developed, and the number of assessment instruments that may have been constructed. The outputs can be evaluated from both the team level and the individual level. What were the outputs of the project team? What were the outputs of each team member? Further, the outputs should also be considered within the evaluation framework. Were the outputs consistent with the project objectives? Did internal processes within the project team or the training organization facilitate or impede outputs? Did they contribute to meeting client needs? Did the outputs serve a strategic business goal? Outputs can be viewed through the lens of the project team, individual team members, and alignment.

Evaluating efficiency is a third option (Poister, 2010). Efficiency can be assessed at both the team and individual levels. Efficiency may be viewed as the ratio of outputs to the level of effort consumed in delivering those outputs. How many hours did it take the project team to develop three self-paced online modules of instruction? From the perspective of the project team, the level of effort for one project can be compared to the degree of effort it took to produce a similar output on another project. The amount of time it took for an individual to develop a learning asset can be compared to other team members or similar work outputs from the same person but on previous projects. Relative to internal processes of the evaluation framework, program managers, in discussion with their project teams, can evaluate whether or not internal processes increased or decreased efforts to optimize efficiency.

A fourth evaluation option available to managers is to measure quality (Poister, 2010) that can be considered by program managers. Accuracy, standards, characteristics, and attributes are possible indicators of quality. Determining if the content of an online training module is accurate and consistent with the processes of the client is an example of quality measures. Did the online modules scaffold problem-solving exercises to facilitate learning and self-confidence? Applying the elements of the evaluation framework, program managers can assess the quality of outputs in terms of meeting internal standards of the training team and the expectations of the client. Quality can be assessed at both the project and individual levels.

Finally, client satisfaction (Poister, 2010) is the fifth option that can be considered for evaluation. Typically, client satisfaction relates to the outputs and quality (Poister, 2010). When assessing client satisfaction outcomes, outputs, and quality may be assessed as separate elements rather than combining them into a single rating. By doing so, the information received through client interviews or surveys will provide more targeted feedback to the project team and individual team members. Client satisfaction is more a reflection of the project results than those of individuals. When applied to the evaluation framework, customer satisfaction relates to meeting the needs of the client and assessing the internal processes of the training team.

Project Implications

The company relies on the 70-20-10 model for its approach to staff development. It states that 70% of workplace learning occurs from on-the-job experiences, learning from other accounts for 20% of one's learning, and, finally, 10% of learning results from training courses. Therefore, approximately 90 percent of workplace learning can be attributed to informal learning methods. These percentages were based on a series of studies in the 1980's conducted by the Center for Creative Leadership (Lombardo & Eichinger, 2011). Similarly, a 1996 study by the Educational Development Center found that 70% of workplace learning is informal (Forman & Keen, 2012). Then, in 1997 the U. S. Bureau of Labor Statistics also reported that 70% of learning in the workplace was attributed to informal learning (Lohman, 2005). Without too much of a stretch, it can be reasonably estimated that 70%-90% of workplace learning was attributed to informal methods. In this section, the implications of the study will be examined from the perspective of social change and from the point of view of its impact within the particular milieu that was the target of the study

Social Change

With the limited scope of this study, any significant implication on social change is also very limited. Nonetheless, this section does afford the opportunity to reflect on the potential impact of informal learning, within a corporate environment, on the process of social change. Of the many factors influencing the lives of people, a globalized economy is frequently mentioned (Merriam et al., 2007). Not only due corporations provide employment opportunities, but they also serve as conduits through which ideas and information are exchanged. The global economyhas been labeled the knowledge society (Merriam & Bierema, 2014), as a knowledgeable and competent workforce is necessary to sustain competitiveness in a fast-paced and ever-changing global marketplace. As company's train and develop their workforce, they upgrade the knowledge and skills of individuals within the communities they operate. No only do companies relocate to areas with qualified workers, but workers also move to areas with employment opportunities.

With informal workplace learning having such a profound impact on individual skill development, the workplace can be conceptualized as a vehicle for social transformation (Groener, 2006). While social change may not be the objective of informal learning within a corporate environment, it may, nonetheless, be a positive consequence of it. Within the knowledge society, change occurs at such an accelerated pace (Merriam & Bierema, 2014) that even day-to-day tasks require new learning. As organizations seek to address the issue of how to create on-going, rapid, and performance-based learning, not only do they become more competitive, but they also sow the seeds of social change through a more knowledgeable and skilled workforce.Groener (2006), for example, cited how South Africa passed the Skills Development Act 97/98. The act was not only intended to improve the competitiveness of businesses but also to provide developmental opportunities for communities. Public

policy, in this case, reflected the reciprocal benefits of corporate training efforts and societal improvement through enhanced developmental opportunities.

Local Impact

Just as informal learning has the potential of influencing societal change, it also has the potential of affecting how and the extent that learning occurs within the work environment. The value of this project to stakeholders is in its recommendations of how informal learning can be structured and promoted within the workplace. While this study of six customer service trainers within a corporate environment is of limited size and generalizability, it does provide some insights that can guide training managers in implementing informal learning. The themes, attributes, and structures of informal learning identified in this study were similar to generic studies across various other professions (Crouse et al., 2011; and Hicks et al., 2007). These themes reinforce the potential utility of recommendations detailed in this study.

Learning is important to both the organization and the individual. For organizations, developing a competent and adaptive workforce is vital to their capacity to compete in the world of changing markets and economies. Millions of dollars are invested in workplace learning programs (Noe et al., 2010). By providing insights into the structure of informal learning experiences, this project can serve to improve the execution of informal learning within customer service training organizations. Incorporating an action-based learning approach, as outlined in this paper, into the dayto-day operations of training team's promises to yield several benefits for an organization (Marquardt, 2010): (a) it enables organizations to simultaneously pursue key projects while promoting learning and competency of teams and associates; (b) facilitates the transformation to a learning organization thereby offering the prospect of more resource-effective and flexible responses to new challenges and changes; (c) builds high-performing and self-directing work teams; and (d) generates an organizational culture that effectively drives performance through a continuing and deliberate focus on professional development.

From the perspective of the individual associate, as people perceive themselves to be more effective in the performance of their jobs, they see themselves as volitional and autonomous in their learning, which increases their sense of self-efficacy and motivation. Informal learning is pervasive in today's workplaces. Illeris (2011) noted that project related work can be highly effective and relevant to promoting learning, competency development, and improved performance because through project-based learning individuals can engage in actual projects. As this project promotes the execution of informal learning within the customer service training unit, so too will it impact the efficacy of developing individuals within the training organization. Valid informal learning, within a corporate environment, not only has the potential for social change, but it has the additional benefits of improving the competitiveness of the company and enhancing the professional development efforts of trainers.

Section 4: Reflections and Conclusions

Introduction

The genesis of this project was the inherent limitations existing within the 70-20-10 model of staff development as advocated by McCall, Eichinger, and Lombardo (Lombardo & Eichinger, 2011), which was the model of staff development adopted by the corporation. As previously mentioned, the 70-20-10 model maintains that 70% of workplace learning occurs through on-the-job experiences, 20% occurs through interactions with others (i.e., coaching, peer collaboration), and 10% occurs through formal training. As a strategy for staff development, it lacked structure and a sound research foundation to guide its implementation. Informal discussions with managers revealed a sense of uncertainty regarding what types of job experiences promoted learning or how on-the-job experiences facilitated learning. While some researchers (Hicks et al., 2007; Hutchins et al., 2010) reinforced the thesis that workplace experiences are frequently the primary source of learning among many workers, they did not identify the attributes of those experiences that most contributed to professional development. So the question emerged: Where does one start in gaining an understanding of what attributes most contribute to workplace learning? I decided to start with the workers themselves. Which, I asked myself, on-the-job experiences contributed most to employee learning and improvements in performance? Also, I wanted to gain an understanding of which factors tended to facilitate the process of workplace learning and performance improvement.

I did not anticipate the scope or depth of the task I was about to undertake. Over the course of my research, I discovered the field of workplace learning and its many facets. What struck me was the diversity of research relating to workplace learning. I expected my research to concentrate on experiential learning, action learning, and selfdirected learning. However, stumbling upon workplace-related research opened a panoply of research, perspectives, and approaches. In time, I formed the thesis that it was not the percentages (70%, 20%, and 10%) that were important, but rather it was the flow and integration of learning experiences. For example, there is almost no empirical evidence indicating that 70% of workplace learning occurs through participation in dayto-day work experiences. There was considerable support, including the results of this study, for the notion that work-related activities were foundational to learning and professional development. Though this was a subtle shift in my learning, it was significant. While the research questions did not change, the focus of my analysis and research of literature did undergo iterative evolution.

Project Strengths and Limitations

This project, like most projects, has its strengths and its limitations. In this section, the strengths and limitations are identified and explored.

Project Strengths

The project has three strengths. First, it provides specific recommendations for implementing informal workplace learning. Second, it illustrates how workplace learning is purposeful and structured as opposed to a serendipitous occurrence. Finally, the study

provides an in-depth inquiry into informal workplace learning within a particular context. Below, each of the strengths is elaborated in greater detail.

Specific recommendations. Inadequate program implementation has historically impeded the effective execution of workplace learning initiatives (Kessler, Horton, Gottlieb, & Atwood, 2012). Research regarding the 70-20-10 model, while providing a general framework for staff development, has lacked substantive guidance relating to its implementation. This study project outlines 15 research-based recommendations (Graham, 2013) to be considered when planning and implementing informal workplace learning. In addition, it suggests how informal learning can be applied and evaluated within the context of a customer service training organization. The recommendations are organized by four actionable elements: learning through participation in work projects, social interactions, structure, and purpose. It is intended that the recommendations facilitate the process of decision making (Graham, 2013; Kantor, 2009; Stelzner, 2007) as managers seek to explore how they want to implement the 90% of the 70-20-10 model that relates to informal learning. While implementation of the recommendations is highly advised, they are offered with the realization that managers have the discretion to implement some of them and not others. The recommendations and suggestions offered in the study are viewed as important because managers within the customer service training organization currently lack clarity or direction as to how the 70-20-10 model can be implemented within their respective teams.

Purposeful and structured. Reflecting a common conception of informal learning, Enos et al. (2003) explained that it was grounded in action and reflection as

individuals sought to make sense of their experiences. Making sense of their experiences led people to believe that the world was flat. In other words, making sense of one's experience can lead to correct as well as incorrect conclusions. This study adds to the understanding that structure and deliberate intent are vital to effective, as opposed to serendipitous, informal learning. Initially, Marsick and Volpe (1999) viewed informal learning as "predominantly unstructured, experiential, and noninstitutional" (p. 4). Billett (2001b) emerged to suggest that mere engagement in work activities did not guarantee learning. He put forth the argument that workplace learning requires structure. Marsick (2009) eventujally conceptualized informal learning as involving intentionality and as occurring within a social context. She also recognized the impact of organizational structure, processes, and practices upon informal learning.

The participants in this study demonstrated how a structured work environment, which included opportunities to engage in a variety of projects, setting developing goals, building a social environment that encouraged coaching and collaboration, and facilitating self-assessment and self-regulation, contributed to workplace learning. Additionally, supporting planned functional diversity, employing scaffolding and fading strategies to build competencies, and engaging workers in meaningful work experiences all served to advance the cause of professional development and, ultimately, improved performance. These attributes require planning, intentionality, and alignment. They are not random, disconnected, or serendipitous occurrences, as is frequently implied through the use of the term *informal learning*. This study reaffirms the proposition that informal workplace learning is planned and structured. Further, it fills the gaps left unattended by the 70-20-10 model introduced by McCall, Eichinger, and Lombardo (Lombardo & Eichinger, 2011).

Depth of inquiry. The interviews for this project focused on understanding which workplace experiences most meaningfully contributed to professional development and improved performance. Hicks et al. (2007) found that the preferred approaches to informal learning of Canadian accountants were completing new tasks, applying past experiences, learning informally from others, and thinking about past events and activities. Several years later, Hutchins et al. (2010) revealed that reading books, talking to other training professionals, and reviewing research literature were trainers' most frequently relied-upon methods of learning. In addition, Hutchins et al. (2010) found that trainers chose those informal learning methods that were most accessible or most familiar to them. When examining both formal and informal methods of learning, they found that trainers cited motivation and interest most frequently as a reason for choosing a learning method. While these studies provided insight into the informal learning preferences of workers, they did not provide clarity as to how people learned. For example, was it the mere exposure to a new task that led to learning, or were there other intervening factors that made exposure to a new task a meaningful learning experience? When Hutchins et al. (2010) learned that motivation and interest influenced which learning method was chosen, they did not provide any further insight into the relationship among motivation, interest, and the informal learning that was selected by participants.

This study was designed to gain a deeper understanding (Rubin & Rubin, 2012; Seidman, 2006), through in-depth interviews, of informal workplace learning, as perceived through the lens of training associates who were seeking to improve their learning and job performance through the application of informal learning methods. The study reinforced the writings of some researchers while expanding on the writings of others (Hicks, et al., 2007; Hutchins et al., 2010). It consolidated into a coherent approach a wide range of research. Based on in-depth interviews, four interacting factors were found to advance learning and performance improvement: engagement in work projects; engaging in social interactions such as coaching and collaborating; having a sense of purpose; and having structured experiences. This study demonstrated that it is not mere engagement in work activities that leads to learning and performance improvement. Instead, learning is influenced by the nature and structure of those experiences. For example, this study reinforced Billett's proposition wherein engaging individuals in purposeful work activities is vital to the acquisition of meaningful and relevant knowledge and skills (Billett, 2001b). It is not the simple act of doing work that leads to learning, but rather engagement in work activities that individuals find meaningful. These work activities helped associates to improve their on-the-job performance and contributed to realizing their developmental goals. As an example, the opportunity to engage in performing a variety of job functions and tasks allowed participants to explore different roles and decide which roles and functions they wanted to pursue in their professional development. As revealed in this study, according to Ibarra (2003), individuals learn about their work identities by engaging in different roles and work activities. They learn which activities capture their interests and skill sets while learning of those that do not.

The study's depth of inquiry enabled a more expansive understanding of fundamental concepts. Continuing with the theme that workers learn through engagement in functionally diverse roles and functions, the study revealed that participants were called upon to solve a range of problems through exposure to these roles and functions. They sought to learn those things necessary to solve problems confronting them. Through in-depth inquiry, therefore, the study illustrated how participants engaged in diverse roles and functions, were exposed to a variety of problems demanding solutions, and pursued learning to assist in solving those problems. These revelations were also reflected in previous research. Chu and Lai (2011) demonstrated how the more workers experienced job diversity, the stronger were their problem-solving skills. At the team level, Mannix and Neals (2005) argued that teams with greater levels of functional diversity weremore able to interact effectively, share information, and perform better than teams with a narrower scope of functional diversity.

The integrative nature of the study continued to shed light on the multimodal nature of workplace learning. As individuals engaged in functionally diverse work activities and were exposed to a greater range of problems to which they sought resolution, social interactions offered problem-specific learning opportunities. Primarily through coaching and collaboration, participants indicated how they were able to derive problem-specific suggestions, guidance, and information to aid them in their problem solving. This study did not restate the findings of other research, which in this instance are that people learn from others. Instead, the study expanded this perspective to suggest that people were learning from others through coaching and peer collaboration while being focused on solving real-world challenges. The depth of inquiry pursued in this study revealed not only the attributes that contributed to workplace learning, but also the interrelationships between them.

Limitations

Just as there were a number of strengths to this project, there were inherent limitations. In this section, the limitations are addressed, along with suggested approaches to remediating those constraints.

Generalizability. *Generalization* refers to the degree with which the results, conclusions, or other accounts of a study can be extended to other settings, groups, or events that are not directly related to or a part of the study (Maxwell, 2013). Qualitative studies are typically context specific, and they involve a small number of individuals or sites. As a result, qualitative researchers tend not to make explicit claims about the generalizability of their results. The scope of this study was context specific and involved a small number of people. As to context, the study examined informal learning as it occurred within a customer service training organization of an international corporation, while the size of the study was limited to six participants. Therefore, the results of the study cannot be generalized to a larger population or other contexts.

Problem statement. One of the first steps in the research process is to construct a problem statement. Based on preliminary research, it was determined that this study should focus on informal learning as it occurred within a corporate environment. During this study, it became clear that workplace learning, while relying most heavily on informal learning, is an integration of both the formal and informal aspects of learning.

This study focused on informal learning and, as it did so, the relationship between formal and informal learning was not fully explored. Although the topic of formal learning emerged during discussions with participants, the relationship was not explored and, as a result, this study failed to examine workplace learning from a broader perspective that included both formal and informal learning. Though formal learning is well researched, the decision to focus on informal learning to the exclusion of formal learning may be viewed as a limitation of this study.

Alternative Approaches to the Problem

This section presents different ways to address the problem than those employed in this study. Alternative problem definitions and alternative solutions to the problem are explored.

Alternative Problem Definition

The problem addressed by this study was identifying ways to promote and facilitate informal workplace learning so that associates assigned to one of three customer service training teams could acquire the knowledge and skills necessary for improved performance. Problem statements, or issue statements, are created to facilitate research (Stake, 1995). The first step, according to Merriam (2009), is to raise a question about "something that perplexes or challenges the mind" (p. 58). Problem statements often conclude with the statement "The purpose of this study is to . . ." (Merriam, p. 59). Just as problem statements lead to a declaration of purpose, purpose statements result in set of research questions. The problem statement for the study focused on the issue of informal learning. This resulted in the formulation of a set of research questions addressing the

issue of informal learning rather than formal learning. One of the challenges in forming valid research questions is the degree of specificity with which they are written (Maxwell, 2013).

During the study, several participants raised the topic of formal training as a method of learning that they would like to have more of. For some of the participants, formal and informal learning methods were perceived as vital elements of their learning. With the scope of the defined problem concentrating on informal learning, the full relationship between formal and informal learning was not explored. Stake (1995) suggested that the evolution of a problem statement or issue questions is an iterative process. As a study progresses, some issues emerge while others, once thought to be important, fade in terms of their relative importance. When study participants continued to raise the issue of formal training, this may have been an opportunity to reconsider the problem statement and, if necessary, expand it to include both informal and formal learning. The problem statement could have been modified to address the issue of workplace learning from the dual perspective of formal and informal learning approaches.

Researchers have approached the issue of workplace learning, both formal and informal, from various perspectives. For example, Hutchins et al. (2010) investigated the methods training professionals used to learn about training transfer. Their study examined workplace learning from both the formal and informal method of instruction used by trainers to understand the transfer of learning from one environment or context to another. Hicks et al. (2007) examined workplace learning strategies employed by Canadian accountants. The study also included formal and informal methods of learning. None of these studies delved into the issue of the perceived impact those learning methods had on learning and performance. Just as this study sought to examine informal workplace learning strategies that promoted learning and performance, an expanded study could examine how formal and informal learning strategies could actually impact both learning and performance.

Alternative Solution

While redefining the problem is one approach to discussing alternatives to addressing the problem, another approach is to address the problem as it was originally constructed but to ask alternative questions. A previously stated, at its core, this study sought to address the problem of how to execute informal learning within the workplace. The study's primary research question, focused on understanding how do customer service training associates perceive informal workplace learning experiences being meaningful to their professional learning and development. Addressing the issue of facilitating informal workplace learning could take a different course by altering the research question. For example, the study did not pursue the question of which barriers or impediments to informal learning were perceived by study participants.

Several studies (Crouse et al., 2011; Ellinger, 2005; Hicks et al., 2007; Lohman, 2005) have identified impediments to the implementation of informal learning within the workplace. However, the studies tended to take a different approach to examining barriers to informal learning. Lohman (2005), for example, looked at factors impacting engagement in workplace activities while Ellinger (2005) discussed how contextual factors influenced informal learning. Exploring the barriers to informal workplace learning through a multi-dimensional lens (i.e., work environment, coaching practices, social interactions, and work activities) would certainly add to the body of knowledge relating to the execution of informal workplace learning.

Analysis of What Was Learned

Scholarship

What was learned about scholarship during this project? This question prompts another question: What is scholarship? Kanuka (2011) noted that for some researchers the scholarship involved publication of a document was public, peer-reviewed, and critiqued. Another conception of scholarship involved the discovery of knowledge (Subbiondo, 2013). Throughout the course of this project, I have come to view scholarship as a mindset as well as the disciplined execution of research principles in pursuit of discovering and applying knowledge.

Mindset refers to powerful beliefs that also influence how people think and act (Dweck, 2006). A mindset of goal-directed inquiry and reflection was essential throughout the research process. Underlying this goal-directed inquiry and reflection were the motivation to solve or, at least, contribute to the resolution of a real world problem and the belief that such was possible. The mindset, therefore, of goal-directed inquiry and reflection were purposeful and meaningful to the extent they contributed to a better understanding and resolution of an existing problem. A mindset of inquiry was vital to the process of understanding. During the course of the first interview, I was struck by a sense of center vs. periphery dichotomy. As I was asking questions and listening to the participant, I found my thoughts, my questions, and my interpretations to be at the center of my attention. My mindset was to collect data for my study. Quickly, I realized the need to shift my mindset from a focus on collecting data to an inquiry focus, which necessitated immersing myself into understanding the perspectives and perceptions of the participant. As I shifted my focus of attention from me to the participants, I metaphorically shifted by perceptive from being at the center of the interaction to being on the periphery of it. This instance was only one of many where I had to shift my mindset from one of completing a task to one gaining insight and understanding.

The mindset of inquiry also prompted the asking of critical questions that drove reflection (Marquardt, 2011). Learning to askthe right questions was vital to the process of reflection and gaining insight into what is known and what is not known. Questions not only clarify the scope and nature of a problem, but they also serve as a check-andbalance of interpretations and inferences made during the study. Without an inquiring mindset, the process of asking key questions and reflection would have been less effective. An inquiring mindset promoted the collection of valid information, making more informed choices, and on-going monitoring of the inferences and conclusions between formed.

The second aspect of scholarship was a disciplined execution of research-based principles. A collection of anecdotal experiences does not constitute scholarship. Scholarship involves a deliberative process that makes a contribution to knowledge within a discipline (Kanuka, 2011). It builds upon previous research, including the principles and constructs derived from them, but does not limit or constrict the pursuit of knowledge by the past. In proposing standards for faculty performance, the Carnegie Foundation suggested setting clear goals, requiring adequate preparation, employing appropriate methodologies, producing significant results, demonstrating effective presentation, and engaging in reflective critique. All of these attributes are reflected in the study process.

There are many ways to pursue the discovery and application of knowledge. Scholarship does so by incorporating a mindset of inquiry with a set of researched-based principles. The results of this process are subject to review and critique. This process, as I have experienced, causes researchers to reflect on those reviews. They may reinforce the perspectives of the researcher or they may move researchers to accommodate varying points of view. Scholarship is, therefore, a process and not an outcome; although an outcome does result through the process of scholarship. It is the process of scholarship that moves its outcomes from an amalgamation of anecdotal experiences to a coherent body of knowledge.

Project Development and Evaluation

Reflecting on what I learned about project development and evaluation began with answering the question: what is a project? Wysocki (2009) defined a project as "a sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a particular time, within budget, and according to specification" (p. 6). The challenge with this definition of a project, relative to my doctoral study, is that my doctoral study does not have a defined budget or completion deadline. Katz (2009) offered another definition of a project. A project, according to Katz, is a "task that has a starting point and a well-defined goal, operates under constrained resources and is finished when the goal is accomplished" (p. 2). For my project study, this definition falls short because of the reference thata project is a task. My project study involved a number of distinct and complex tasks. For the purposes of this discussion, a project refers to a sequence of unique, complex, and interconnected tasks that have a starting point and well-defined goal, operates under constrained resources and in accordance with a set of specifications, and is finished when the goal is accomplished.

Progressive iteration. Projects, I have learned, involve what I shall call progressive iterations. To understand the phrase progressive iterations, let me consider the process of constructing a problem statement. Based on several factors, such as professional interest, experience, and previous research, an initial draft of a problem statement was constructed. As the research was conducted, in accordance with project study guidelines, this initial problem was called into question. The problem was revised to accommodate information obtained through some research. As more research was conducted regarding the problem statement, I discovered there were more dimensions to the problem than initially anticipated. The problem statement was again amended to accommodate these newly discovered dimensions. As research continued, gaps in existing research were revealed. For example, in my research project I found that previous research identified the types of informal workplace learning methods employees tended to rely upon for their professional development. These studies were few in number and rendered findings that were consistent in some aspects and inconsistent in others.

What struck me was the realization that these studies did not identify whether or not the methods selected were perceived, by study participants, as being meaningful to their learning and improved performance. As research and knowledge gaps were revealed through literature reviews, another iteration of revising the problem statement was forthcoming. Throughout this iterative process, the scope of the problem was expanded to a point where it was too unwieldy requiring further refinement calling for yet another revision. It may be that a lack of background in academic research opened the doors for inefficiencies in the problem definition and research process. Ultimately, these inefficiencies added to the unnecessary or misdirected expenditures of time and energy.

Alignment. By definition, projects are driven by well-defined goals. But, those goals must lead to resolution of the problem specified in the problem statement. Alignment between project goals and problem statement is essential for a successful outcome to be realized. While this may seem an obvious, it is one requiring reflection. There were several options available as to how resolving or addressing the problem could be approached. The challenge was determining which of these options would be most meaningful and aligned with the problem. Alignment between the problem statement and objectives was only the start of ensuring proper alignment of the various stages of the project. Ensuring the interview questions were aligned with the goals and would yield the types of data necessary to meet the project objectives was also vital to a successful outcome. From the problem statement through to the completion of the study project, the alignment of each step of the process with previous steps must be aligned.

Development process. From the start of the project study, the process of reflection has been instructional. Each step has opened the door to new learning opportunities, new insights, and alternative ways of viewing issues, challenges, and solutions. Rather than reflect on the learning that occurred during each discrete step, I will provide an overview of the most transformational elements of what was learned. First, there is a sense of openness to new ideas and alternative perspectives that emerge. This openness is a mindset of inquiry, which was previously described. Without it, the processes involved in the project study would be merely reinforcing previously held constructs. Second, there is the process of forming new ideations and testing them. This occurred through the process of research and testing of new inferences and conclusion. Research awakens you to the new, the different, and the previously unperceived. Some of these ideations make sense and, as a result, viewed as potential solutions. Through discussions with colleagues and further research, these concepts are tested. I found this process of testing ideas and concepts crucial to the process of learning. The project study, through the process of research, designing the study, collecting and analyzing data, and formulating conclusions, exposed me to new ways of thinking, new concepts and principles, and new processes. Progressing through the various stages of the study development process, receiving feedback, and engaging in discussions held with colleagues, both within the Walden community and outside of it, provided a range of learning experiences. These experiences allowed me the opportunity to formulate new ideations, test those ideations, and adopt what appeared to be viable. Of significance to

my learning, therefore, were not only the specific concepts and principles that were learned but also the transformational process of learning.

Evaluation. Pangarkar and Kirdkwood (2009) suggested that learning professionals are preoccupied with delivery outcomes than they are with measuring the effectiveness or impact of a particular program. The point of their comment is to emphasize the importance of program evaluation, which refers to the application of systematic methods addressing questions about program results and efficacy (Newcomer, Hatry, & Wholey, 2010). The importance of evaluations was not the most significant learning about program evaluation. Instead, it was the process of selecting the assessment option that best served the project. A performance evaluation option was chosen because it offered multidimensional feedback regarding the outcomes of the project and the contributions of individual team members. The information can be used to assess the efficacy of the project, and it can be used to suggest improvements to the process of informal workplace learning. Exploring alternative forms of evaluations, weighing their purpose and benefits, and, ultimately, selecting the best approach was an extremely instructive experience. Upon reflection, this process was more important than initially anticipated. It was essential to propose an effective evaluation process and submit recommendations that were acceptable to managers, easy to implement, and sustainable over time. Despite the importance of evaluations, managers tend to be less interested in evaluation than they are in the implementation of a program. Therefore, several evaluation options were offered to managers affording them the opportunity to select the option(s) most meaningful to them.

Leadership and Change

Leadership is showing the way and helping or inducing others to pursue it. This perspective envirions a desirable future, promoting a clear purpose or mission, supportive values, and intelligent strategies, and empowering and engaging all those concerned (Gill, 2011). It is also showing the way and helping others to pursue it. An important trait of leadership, according to Dickman and Sanford (2009) is an openness to alternative perspectives and new sources of information. The process of defining a problem, constructing research questions, conducting a study, engaging in an extensive research of literature, developing recommendations for action, and inducing others to pursue that course of action is, by its nature, an exercise in leadership. Leadership is about creating a vision, developing a coherent course of action, and influencing others to pursue it. The significant learning, for me, is understanding the relationship between scholarship and leadership. While they are not the same, scholarship contributes to and enables leadership.

Leadership in the twenty-first century needs to challenge old assumptions and examine ingrained habits of behavior (Dickman & Sanford, 2009). This project was instituted to initiate the process of change regarding how workplace learning occurred within a corporate training environment. The corporation adopted the 70-20-10 model of staff development wherein 70% of learning resulted from on-the-job experiences, 20% from coaching or through interactions with others, and 10% from occurred through formal training (Lombardo & Eichinger, 2011). As others have indicated, there is an apparent lack of empirical evidence substantiating the model and, especially, the breakdown of percentages (Forman & Keen, 2012; Kajewski & Madsen, 2012). Some researchers indicated informal learning tends to be haphazard and idiosyncratic (Marsick & Volpe, 1999). Experience plays a central role in learning the extent thatlearners can extract those things that are significant and meaningful to them (Billet, 2001b; Garrick, 1998; Lohman, 2005). This project set about to understand they types of experiences trainers perceived as contributing most significantly to their professional development. Identifying meaningful learning experiences was critical understanding the significance of informal workplace learning practices. Based on the findings of the research, the project outlined recommendations and a course of action to amend informal workplace learning within the customer service training environment. From a leadership perspective, this project represents a vision and the initiative to bring about change.

Self-Reflections

As a Scholar

Returning to my previous comments about the scholarship. In contrast to others who view scholarship as publication in a peer-reviewed publication (Kanuka, 2011) or as the discovery of knowledge (Subbiondo, 2013), I have come to see scholarship as a mindset of inquiry and a disciplined application of research principles leading to the discovery and application of new insights. I view scholarship in pragmatic terms. It must have utility in the real-world. From this perspective, scholarship is not merely a mental exercise but rather a disciplined approach to thinking and taking purposeful action in addressing real-world concerns. Scholarship,therefore, is not an end but an ongoing process. While I do not view myself as a scholar, I have indeed made significant progress toward becoming a scholar and have become committed to using the process of scholarship in addressing real-world challenges. I enjoy the process of research and synthesizing diverse and, at times, divergent points views to resolve issues confronting me in the world of business. Applying the process of scholarship to my daily work activities has enabled me to construct workable solutions to complex problems. My area of interest and passion is the study and development workplace learning and performance solutions. I hesitate to refer to myself as a scholar so as not to diminish the incredible work of those who are truly scholars in their respective fields. Indeed, I have made considerable progress on my journey to becoming a scholar. The road to scholarship is long, and I will need to develop a body of work worthy of being a scholar, which is something I have yet to accomplish.

A very insightful question was asked: Have you made the transition from a consumer of research to a producer of research? No doubt, I have done so. However, does that make me a scholar? I do not know. Such a judgment, I will leave for others to make. From my perspective, I am on a journey of self-fulfillment, which is grounded in being of service to others.

Throughout this study and project, I learned to apply the processes and mindset of scholarship. At the outset of the research, while writing the proposal and constructing the first two sections of the study for IRB approval, I learned about the mindset and processes of scholarship. Obtaining IRB approval was a frustrating experience for me. The difficulty had to do with my position as a manager in the company. Though none of

the people I managed were to be engaged in the project, the mere fact of me being in a management position imposed the potential for intimidation. After several rounds of resubmittal's, strict guidelines were imposed to obtain final IRB approval. Throughout the data collection process, I was very deliberate in my approach to meet the strict conditions imposed by the IRB. For example, during the interview process I wanted to ask some follow-up questions that would have provided me a greater level of understanding relating to the perceptions and expectations of participants. However, I deliberately limited my follow-up to asking only those questions that were directly related to clarifying comments made by participants. While I felt the IRB process inhibiting and constrictive, compliance with its imposed restrictions required a disciplined approach to the data collection process. Scholarship, but its nature, imposes restrictions and conditions. Throughout the study and the construction of the project, I learned to become more comfortable with both the mindset and process of scholarship.

As a Practitioner

Discovering new ideas, new relationships, developing a new approach, finding an opportunity to execute it, and evaluating the efficacy of the new approach is my passion. This is particularly true as it relates to workplace learning. Listening to others, doing research, searching for ways to solve real-world issues is a process I find both challenging and engaging. I am not a theorist in the sense that I want to create new theories. I am a consumer of research and theories with a deep interest in seeking out viable real-world solutions. At my core, I am apragmatist, who has learned to use the processes and disciplines of scholarship to become a much betterin constructing solutions

to the challenges confronting workplace learning.

While working on my research and project I found myself cast into a conflict of sorts. Clearly, working on this project it is necessary that others find my work acceptable as I strive for conformity with their expectations. Acceptance, conformity, and the compliance are essential conditions of the doctoral program. This perspective is not a denigration of the process. Working within the system is vital to success as a doctoral candidate. I have found my tendency toward creativity to be somewhat imprisoned by the processes and structures of scholarship. During my research and the construction of my project, I have come to realize the driving need to revolutionize the entire process of workplace learning. The pursuit of this interest will continue far beyond my doctoral studies. The contradictions of conformity and creativity have been enlightening. As previously mentioned, the disciplines associated with scholarship have resulted in me becoming a better practitioner. I found, however, the tension between conformance and creativity to have been an important aspect of my learning. In applying the structures of scholarship, I have had to pursue a disciplined course of thought and action. As a result of this disciplined approach to research, forming conclusions, and constructing a project, new ideas and associations have emerged opening tantalizing new vistas of pursuit. Through undisciplined reflection a better approach to workplace learning can emerge. The mindset and discipline of scholarship is essential to the process of discovering innovative and viable solutions.

As Project Developer

As previously mentioned, a project is a "task that has a starting point and a welldefined goal, operates under constrained resources and is finished when the goal is accomplished" (Katz, 2009, p. 2). A project developer, therefore, is a person who can bring a project to its conclusion. As I come to the end of this project, I will have brought a project to its conclusion. However, that the simple act of bringinga project to conclusion does not make me as a project developer. The process of reflecting on me as a scholar and as a practitioner sheds some light on me as a project developer. The capacity to follow a disciplined process of scholarship and the desire to construct a project with realworld implications are reflective of me as a project developer. There are several perspectives from which I could analyze myself as a project developer. Probably, the most insightful approach is to examine myself through the lens of some of the decisions I have had to make during this project study.

A number of personal challenges have arisen that have caused me to alter my initial trajectory toward completion. At the outset of my doctoral studies, I expected to complete the program in three and a half to four years I have not met that expectation. Excluding my health issues, as I have congestive heart failure, I have had to make some value-based choices during my studies. One of those choices was to place the needs of my family before my studies. For example, after the death of my youngest son, I have had to attend to the financial and emotional needs of his family. My other son has Parkinson's disease, required brain surgery, and is dealing with a variety of post-surgery complications. After the relatively recent passing of my stepfather, my mother needed financial, estate, and emotional support, which is still ongoing. Additionally, my granddaughter has had to deal with persistent illness, and my grandson required reconstructive surgery after an injury.

There were other issues. The one them concerned the team of training designers and developers that I manage. The company, which employs me, went through some severe cuts in staffing. To ensure that my team was not a victim of those cuts, I worked twelve to fifteen hour days to keep them engaged in highly complex and high visibility projects. By choosing to do so detracted from the time I was able to spend on my research. As a project developer, I found several other values-based decisions that needed to be made. Spending time to exercise, to relax with my wife, and to do other home related chores were all values-based decisions that impact the time I was able to devote to the project. I was willing to make the choices, deal with the consequences, and persist in completing my project study.

Overall Reflection

Overall, the experience of the project study has been transformational. First, it was transitional to the extent that I learned to pursue a more disciplined approach to identifying a problem, researching literature, and conducting research. Initially, it was a mechanical process of following defined structures. I was acquiring new knowledge and learning to apply it. As my research would reveal, I was presented with a real-world challenge, which was to conduct research and develop a project that applied its findings and conclusions. Much of my learning through classes, discussions, and research applied meeting that challenge. Slowly but progressively, using the disciplines of scholarship

begin to influence my thinking, my reflections, and the way I approached problems. With practice and application, the behaviors became more habituated. I found myself applying the principles and practices in responding to problems and issues presenting themselves on the job.

As to the project study, I found that much of a person's identity and sense of selfworth is related to their capacity to perform on the job. People learn about themselves not through reflections on theory but through interactions with the world around them (Ibarra, 2003). Creating effective workplace learning and development experiences has an impact on real people, with real aspirations, and real families or dependencies. This project is an effort to influence the lives of individuals by contributing to the knowledge and practice of workplace learning.

Implications, Applications, and Directions for Future Research Implications

Workplace learning is not about the 70-20-10 model where 70% of learning occurs through engaging in work experiences, 20%learning through interactions with others, and 10% through formal training. Informal workplace learning is much more than the mere engagement in workplace activities. It is the systematic integration of critical components. Foundational to informal workplace learning is the participating in a variety of projects; setting developmental and learning goals; assessing one's abilities and competencies; and interacting with others through collaboration and coaching. An implication of this project study is that workplace learning is not engagement in a variety of disconnected activities, such as working on a project, interacting with others, and

attending training classes. Instead, workplace learning must be viewed more systemically as the intentional and structured integration of the aforementioned foundational components, which have an interdependent relationship and do not stand alone. Marsick and Maltbia (2009) held that organizations want to invest in strategic forms of learning that are intentional and performance driven. Companies and organizations, in today's competitive market, can ill afford to leave learning and performance improvements to serendipitous occurrences. At its core, workplace learning is the conduct of work that is salient and meaningful to the identity and development of individuals and will lead to their success on the job, which is another potential implication of this study.

Another implication of this project is it potential to impact individual and social change within organizations. As to the individual, self-determination theory (SDT) puts forth agruments worthy of consideration. According to SDT, there are three basic and interdependent needs: competence, autonomy, and relatedness (Deci & Ryan, 2008). Consider that competency tends to promote autonomous motivation, which leads to greater psychological health, more effective performance, and increases an individual capacity to persist longer when confronted with challenges. Through structured workplace learning experiences and purposeful interactions with managers and peers, individuals have a greater potential for increasing their level of competency and, hence, their level of autonomous motivation, which leads to the gradual transformation of the individual. From transformational theory, it can seen how personal experience and dialogue can stimulate reflection with the potential of transformative change (Taylor, 2009). There is a reciprocal relationship between people and the social context. As

individuals change so too does the social environment; and, as the social environment changes, it has an impact on the individual. An effective informal workplace learning environment has, therefore, the potential for affecting positive individual and social change.

Application

This study was undertaken to better understand informal workplace learning as perceived by training associates. It was intended that the results of this study would provide managers some guidelines for the implementation of informal workplace learning within their respective teams. The white paper, developed for this project, serves this purpose. Workplace learning is an important activity that contributes to improvements in the performance of individuals and organizations. Previous research suggested that 70% -90% of new learning occurred through informal learning methods (Lohman, 2005; Lombardo & Eichinger, 2011). Hicks et al. (2007) found that Canadian accounts tended to rely on completing new tasks, applying past experiences, working with others, thinking of past events and activities, and research solutions as commonly relied upon methods of informal learning. In another study by Hutchins et al. (2010), participants employed the following methods of informal learning: learning through job experiences, talking to internal training professionals, talking to external training professionals, searching for information on the Web, and observing other training professionals. While studies such as these examined commonly used methods of informal learning, they did not explore how these methods contributed to learning.

The results of this study suggested a more integrated and systemic approach to informal learning. Projects serve as the foundation for learning, such that methods as coaching, collaboration, and research purposefully occur within the context of the project. With social interactions being a key component of informal learning, creating a team environment that facilitates discussions and dialogue are essential. Then, there is the issue of functional diversity, which is another element of effective informal learning. Through participation in a range of projects, associates are exposed to a diversity of jobs and, hence, new learning opportunities. They are able to assess their capabilities in a variety of contexts as they solve an ever expanding array of on-the-job experiences. In addition, they discover what functions and activities are meaningful to them. Over time, work identities are formed and transformed. Through the recommendations offered in the white paper, this project will provide training managers with an approach to implement informal learning within their respective teams.

Future Research

Billett and Choy (2013) suggested much more remains to be understood about learning in work settings and how these experiences can be enhanced to improve workplace learning. The findings of this study are not generalizable due to the small sample of participants and the scope of the study being limited to training teams within a customer service training organization within a single corporation. While this study serves to illuminate the factors influencing informal workplace learning, its findings need to be confirmed by future studies that are more generalizable.
Future research could focus on several areas that were identified in this study. For example, a future study could address the issue of how do formal and informal learning interact to improve on-the-job performance. Such research could determine if formal learning should precede informal learning activities or should formal learning be broken into micro units of just-in-time training that are designed to facilitate the project-based learning and execution. While this study did not address formal learning, the exploration of how formal and informal learning should be integrated into a coherent system of workplace learning is certainly an opportunity for future study.

The degree to which the findings of this study apply to other professions or contexts is another opportunity for further study. Results of this study applied to a team of trainers within a customer service environment of a large corporation. A logical next step, therefore, could be replicating this study with other professions or in governmental or non-profit organizations. A third area of future research may be to address what types of learning experiences do workers perceive as being meaningful and the degree to which these meaningful learning experiences impact on-the-job performance. The findings and conclusions of this study suggest opportunities for future research relating to the types of experiences that will lead to more effective workplace learning and performance.

Conclusion

Workplace learning is an evolving field with a range of varying perspectives and approaches. Grounded in experiential learning, much of the practice of workplace learning assumes that the majority of an individual's learning is the result of engaging in work related activities. Researchers are learning that what is termed as informal workplace learning requires much more than participation in work activities. It requires a level of structure and planning that was once the domain of formal or classroom training. There is still much to be learned about workplace learning. This study is but a small effort to contribute to that learning.

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Footnotes

¹ Names of individuals, participants, buildings, cities will be replaced by pseudonyms.

Appendix A: Project

Informal Workplace Learning Within Customer Service Training



By Robert R. Bing



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Executive Summary

Problem

The company advocates the use of 70-20-10 model as the primary means of staff development. According to the model, 70 percent of an employee's development should occur through work-based experiences, 20 percent through interactions with others, and

10 percent from formal training (Lombardo &

Eichinger, 2011). Essentially, the 70-20-10 model advises that 90 percent of an individual's professional development result There is a clear lack of empirical evidence supporting the 70-20-10 model (Kajewski & Madsen, 2012).

from informal learning methods. There are, however, several difficulties with the model. First, as Forman and Keen (2012) point out, the research basis for the "70-20-10 equation is not particularly strong" (p. 38), as well as being dated. This perspective was reinforced by Kajewski and Madsen (2012) who noted that there was a definite lack of empirical evidence supporting the 70-20-10 model. Second the model does not offer prescriptions for optimizing informal learning. Learning does not necessarily result from the mere participation in work activities (Lohman, 2005). This study sought to understand how to promote informal workplace learning. The purpose of the study was to determine what attributes of informal workplace learning experiences do training associates perceive as contributing most meaningfully to their professional development and improved job performance.

Solution

Learning in the workplace is not an ad hoc process or does it occur without

structure (Billett, 2001b). Marsick and Watkins (2001) argued that learning could be incidental, which is to say unintended, accidental, or even unconscious. But, businesses cannot run the risk of incidental learning; there is too much at risk. To compete in the marketplace, companies must



promote targeted learning, which is designed to increase competency and drive improved performance. The study identified four actionable components of informal workplace learning:

- Engaging work projects and activities were foundational to learning and development.
- Social interactions, through coaching and peer collaboration, provided feedback and additional insights to one's performance and alternative courses of action.
- Purposeful work-based learning and development opportunities provided the impetus for individual development action.
- Structure, through goal-oriented projects, functional diversity, support from team members and managers, and work processes, organized and targeted action.

Outcomes

Through the implementation of these components, along with related recommendations, managers will be able to provide meaningful informal learning strategies that will promote learning in the pursuit of improved on-the-job performance. This can be achieved without disruption to a team's workflow and output. Additionally, it promotes team learning and builds stronger bonds between team members. It affords individuals the skills and opportunities to assume greater responsibility for their professional development. Finally, the implementation of these components encourages each person to strike a balance between working within a team environment while being self-regulating and autonomous.

Findings and Conclusion

The study employed a single embedded case study design in the tradition of qualitative studies that were interested in understanding how people interpret their experiences and how they find meaning in those experiences (Merriam, 2009). A qualitative case study approach enabled an in-depth inquiry into the perceptions of training associates relative to workplace learning. A focus of this study was to understand how training associates perceive their lived experiences relating to informal workplace learning and how they ascribe meaning to those experiences. Six study participants, from three different training teams, were interviewed. Efforts were also made to optimize the variations in their locations and tenure to gain a variety of perspectives.

Data Analysis

Interviewed data was collected and coded. Overall there were approximately 200 codes initially generated. Eventually, the 200 codes were reduced to 130 codes, which were eventually clustered into twenty-two categories. Through a process of thematic analysis, the categories were synthesized into five themes as detailed in Table 1.

Table 1

Data Analysis:	Themes	and C	lategories
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Themes	Number of Categories
Functional Diversity	4
Self-Assessment	4
Purpose	6
Developmental Methods	6
Suggested Improvements	2

Findings

At its core, this study sought to understand how training associates perceived workplace experiences as being meaningful to their professional learning, development, and performance. Understanding these perceptions provides insight into what factors or components should be considered when designing or constructing informal learning solutions within the workplace. As previously mentioned, five themes emerged during the data analysis process. Let's explore the insights that emerged relative to each of the five themes.

Functional Diversity

A consistent emergent theme was functional diversity, which referred to the diversity of roles and functions associates were called upon to execute in the performance of

Training associates engaged in performing a variety of four roles: administrative, delivery, development, and design.

their respective job. Every participant identified several roles and a range of functions they were called upon to perform. For example, an associate whose primary role is that of a classroom instructor also develops training courses and, on a limited basis, designs training. Overall, associates identified four roles they performed: administration, delivery, development, and design. Diversity, however, was not just evident in the roles performed, but more so in the functions performed within each of those roles. Table 2 specifies the roles identified by participants and the number of functions they performed relative to each role.

Table 2

Diversity o	fRoles	and Func	tions Iden	tified Rv	Particinants
Diversity 0	, noics	and I and	nons men	ijica Dy	i ai iicipaniis

Description	Roles				
Description	Design	Development	Delivery	Administration	
Number of Participants Performing Each Role	3	6	5	4	
Number of Different Functions Performed Per Role	3	5	3	4	
Average Functions Performed Per Participant by Role	1.67	3.83	2.20	2.25	

As Table 2 revealed, the development role had the highest level of functional diversity as all six of the participants discharged the role with each participant executing 3.83 functions within the role. Conversely, the least functionally diverse role was design, with three participants engaged in the role and each of those three participants, on average, performrf 1.67 functions. Overall, participants performed 3-6 different roles with three to five functions performed within each role. Diversity existed among the roles and functions they executed.

The team environment appeared to influence the degree of functional diversity experienced by members of a team. Table 3, for example, illustrates the range of functions performed by members of the various teams. Clearly, the members of Team 2 engaged in more functions than did the members of the other teams with each member of Team 2 balancing 11 functions.

Table 3

Average Number of Functions Performed for Each Member of a Team

Functions	Team 1	Team 2	Team 3
Average Number of Functions Performed Per Team Member	7.5	11	5.5

Another approach to exploring the functional diversity among the teams was to examine the degree to which each group differed in the number of functions team members performed relative to their roles. Table 4 lists each of the four roles identified by participants, the numbers of functions they attributed to each role and the average number of functions performed by the members of a team. As the table demonstrates, the development role allowed the most diversity within each team but also considerable diversity among the three groups. As to functional diversity within each team, the average number of functions performed by team members ranged from three to five. In addition, the table reveals that Team 2 executed the greatest diversity of development functions with five. Here too, the results suggest that the environment and focus within a team influences functional diversity.

Table 4

Roles	Number of Functions for	Average Number of Functions Performed by Each Team Member		
	Each Role	Team 1	Team 2	Team 3
Administration	4	2	2	0
Delivery	3	2	2.5	1
Development	5	3	5	3.5
Design	3	0	1.5	1

Average Number of Functions Performed a Team Member by Role and Team

Functional diversity occurred at multiple levels. First, at the individual level, individuals performed a range of different roles, functions, and tasks. Second, functional diversity existed between individuals of the same team as they pursued different roles and performed different functions associated with those roles. Finally, functional diversity emerged at the group level. The members of some teams demonstrated a higher degree of functional diversity than did the members of other teams.

Self-Assessment

Another theme was that of self-assessment, where-in participants were able to provide an estimate of their competencies and strengths. The accuracy of their assessments was not evaluated, but what emerged from the interviews as the capacity of participants to discriminate competencies and strengths from those areas where they were less competent and were not an area of strength. Research findings suggest that selfassessment correlated with motivation and learning (Benbunan-Fich, 2010; Lynch, McNamara, Mannix, & Seery, (2012); Mann, 2010). Table 5 provides an overview of the number of participants who rated their competency level by roles they performed. As is evident, participants were uniform in assessing their competency level with regard to delivery and development. The five individuals engaged in delivering training rated themselves at the expert level while the six individuals who developed training rated themselves as competent in the function. Table 5

с (т 1 –	Role				
Competency Level	Design	Development	Delivery	Administration	
Novice	3	0	0	1	
Competent	2	6	0	0	
Expert	0	0	5	0	

Number of Participants Rating Their Competency Level by Role

An aspect of self-assessment was the rationale or the basis upon which selfassessments of competency were formed. Table 6 illustrates the logic used by each of the participants in forming the self-assessment. With the exception of one participant, participants used multiple sources in deciding their competency level. Overall, there were four sources that were identified by participants as having influenced their selfassessments: experience, feedback, assessments, and an individual's comfort level in performing a function.

Table 6

Dortiginant	Toom	Rationale for Selecting Competency Level				Total
Participant Team		Experience	Feedback	Assessments	Comfort	10141
Person 1.1	1	Х	Х	Х		3
Person 1.2	1	Х	Х		Х	3
Person 2.1	2		Х	Х		2
Person 2.2	2	Х	Х	Х	Х	4
Person 3.1	3		Х			1
Person 3.2	3	Х			Х	2
Total		4	5	3	3	15

Rationale for Selecting Competency Level

Overall, participants tended to base their competency ratings on the feedback and comments received from others as well as their own experiences. According to participants, the amount of experience they had in performing a function influence their competency rating. However, it should be noted that all participants rated their delivery skills as expert and their development skills as competent regardless of tenure. Receiving positive feedback and having a sufficiency of experiences in performing a role were highly influential in their self-assessment. Only three of the six participants relied on objective evaluations as a basis for judging their competency level. Despite the limited reliance on objective assessments, participants were quite definite in their self-ratings.

An aspect of self-assessment is the capacity to be aware of one's strengths and weaknesses. Literature suggested that performance is enhanced by focusing on strengths while accommodating weaknesses (Buckingham, 2007). Table 7 compares the total number of functions identified as strengths to the total number of functions identified as a weakness by role.

Table 7

Role	Total Number of Times Function(s) Identified as a Strength by Participants	Total Number of Times Function(s) Identified as a Weakness by Participants
Administration	1	1
Delivery	7	4
Development	7	4
Design	1	4
Total	16	13

Number of Functional Strengths and Weaknesses by Role

The roles most commonly identified as strengths were delivery and development. Within the delivery role, relationship building was identified by four and facilitating learning was identified by three, of the five participants who performed the function, as a strength. As to the development role, only one function, developing instructional materials, was identified as a strength by more than one participant. It was selected by four of the six participants who performed the development function.

Purposefulness

One of the emergent themes was the concept of purposefulness. It referred to some intended outcome or result as reflected in the future roles, professional

development goals, and significant learning specified by participants. Billett (2001b) suggested that learning in the workplace is about developing purposeful knowledge and skills that can be applied to the job. As people learn and apply that learning to the job, they gain experience and expertise. Expertise, according to Billett (2010) is embedded with meaning. The thought is that purposeful learning leads to more meaningful engagement in work activities and, ultimately, better job performance.

Table 8

Participant	Team	Current Role	Future Role(s)	Development Goal(s)
Person 1.1	1	Delivery	Development	Development
Person 1.2	1	Delivery	Training Manager	Development/Design/ Training Management
Person 2.1	2	Delivery	Development/Design/ Mentor	Development/Design
Person 2.2	2	Delivery	Development/Design/ Mentor	Delivery/Development/ Design
Person 3.1	3	Development/ Design	Development/ Design	Development/Design
Person 3.2	3	Delivery	Development	Development

Comparison of Current Roles, Future Roles, and Developmental Goals

The analysis revealed a consistent relationship between the desired future roles of individuals and their immediate developmental goals as reflected in Table 8. When considering future roles, five of the six members sought some type of change from their current position and wanted to pursue future roles that involved instructional development. The emphasis on development was consistent among participants as all six of them wanted to pursue development goals that included expanding the instructional development skill sets. There appeared to be a definite relationship between the future roles that participants wanted to pursue and their developmental goals.

To determine what is meaningful to an individual, I needed to consider what outcomes they deemed worthwhile pursuing and what purpose they intend to fulfill in pursuit of those outcomes. Therefore, another aspect of purposefulness was what participants identified as learning they considered to be significant and the rationale for their selection. During the interviews, participants were asked to describe what knowledge and skills they acquired over the past year or two and what the rationale for their selection was. Most frequently, participants identified learning related to their delivery and development roles as being the most significant that occurred within the past year or two. In addition, they selected as vital learning skills related to positions they viewed themselves as capable of performing at an expert or competent level. This suggests that the acquisition of the knowledge and skills they specified as significant contributed to their perceived competency level. Overall, there appeared to be a definite relationship between the developmental goals, significant learning experiences, and future roles of participants.

Methods of Development

The workplace learning strategies employed by training associates was explored from three different perspectives: methods relating to the 70-20-10 model of staff development, methods resulting significant learning, and methods leading improved performance. Table 9 illustrates the developmental methods or approaches used by participants from the each of these three perspectives. Researchers (Billet, 2001a; Crouse, Doyle, & Young, 2011; Hicks, Bagg, Doyle, & Young, 2007; Marsick, 2006) have suggested that people have used multiple forms or approaches to workplace learning as a means of professional development. Substantially, regardless of perspective, work assignments have served as the foundation of most learning efforts. It is well established that engagement in work activities leads to learning (Billet, 2001; Garrick, 1998).

Table 9

Developmental Method	70-20-10 Model	Significant Learning	Improved Job Performance	Total
Assessment	1			1
Coaching	4	4	3	11
Collaboration	3	5	4	12
Observation	1	1		2
Project	5	6	6	17
Research/Reading	3	2		5
Team Meeting		1	1	2
Formal Training		1	1	2
Accountability			1	1
Reflection			1	1

Comparison of Developmental Methods

Note. Compares the number of participants employing various developmental methods for applying the 70-20-10 model of staff development, promoting significant learning, and improving job performance.

A comparison of the developmental methods used for in the application of the70-20-10 model, promoting significant learning, and improving job performance reveals the most relied upon methods were engaging in work projects, peer collaboration, and coaching. Substantially, regardless of perspective, work projects served as the foundation of most learning efforts. It is well established that engagement in work activities leads to learning (Billet, 2001b; Garrick, 1998). Essentially, projects provided the foundation for coaching and peer collaboration, as well as for the other methods of development. However, of the ten methods mentioned by participants during their interviews, six were used by no more than two participants. Therefore, while there was considerable consistency among participants regarding some of the methods used, there was also a wide range of variability.

Improvements

Throughout the interviews and, largely, in response to a question asking members for suggestions to improve their professional development, there were nine areas of improvement suggested by participants as summarized in Table10. Improvements most often suggested were: more opportunities to collaborate with peers, more time to pursue opportunities for professional development, more opportunities to attend formal training, and more coaching. While there were some common trends in the suggestions offered, the mix of was highly individualized.

Table 10

Suggested Improvements	Number of
by Participants	Responses
Collaboration with other trainers	6
Formal training	4
Time devoted to development	4
Coaching/Mentoring	3
Use of assessment data	2
Defined project goals	1
Instructional guide book	1
Opportunity to observe others	1
Standing check-in meetings	1

Suggested Improvements

All of the participants wanted more collaboration with their peers in an effort to improve their professional development. Whether collaboration exposed participants to a wide range of perspectives, served as a means of learning, or provided an means of verifying or testing their approach to design or development, it was widely endorsed by participants as a means of professional development.

The lack of time was a potential barrier to informal workplace learning and four participants indicated they would prefer to have more time to devote to professional development. However, regarding more time, each of the four participants wanted additional time for different reasons. They wanted more time to develop course content, more time devoted to project work, more time for collaboration, and more time for checkin meetings. For each of these participants, the limitations of time were a barrier to their professional development and, as a result, they wanted more time for staff development efforts.

While formal training is outside of the scope of informal workplace learning, it was a consistent preference among participants. The relatively persistent emergence of formal learning, as a means of professional development, may suggest less of a disparity between formal and informal learning than is indicated in literature.

Conclusion

The primary research question asked: How do training associates perceive informal workplace learning experiences as having meaningful impact on their overall professional development and work performance? Study participants perceived informal learning experiences as meaningful when viewed through the lens of furthering their competency, adding to their ability to perform a range of job functions, and increasing their capacity to achieve desired developmental and career goals. The mix of learning methods used by participants tended to fell into three categories: participation in assigned projects, social interactions, and a mix of individually preferred approaches. Increasing their level of competency, their facility to perform multiple roles, and their ability to perform key functions within those roles served to lend purpose to their on-the-job learning efforts. Learning and development were clearly linked to the types of projects they were assigned and the structure of their work environment.

In summary, based on the perceptions of study participants and an analysis of the five themes, there emerged four elements of workplace experiences that contributed to meaningful learning and performance improvements:

- Engaging work projects and activities were foundational to learning and development.
- Social interactions, through coaching and peer collaboration, provided feedback and additional insights to one's performance and alternative courses of action.
- Purposeful work-based learning and development opportunities provided the impetus for individual development action.
- Structure, through goal-oriented projects, functional diversity, support from team members and managers, and work processes, organized and targeted action.
- Workplace learning, it appears, needs to be viewed with systems thinking in mind. It is, for all intents and purposes, not an ad hoc process but one grounded in the purposeful integration of a variety of elements.

Recommendations

The recommendations outlined in this section are organized into four parts: (a) project recommendations, (b) social interaction recommendations, (c) recommendations relating to purposefulness, and (d) recommendations relating to structure. These recommendations are based on the findings of the project study as they pertain to each of the emergent themes. With the realization that organizations, teams, managers, and team members vary considerably, these recommendations are offered for consideration by managers seeking to employ informal learning as a strategic approach to staff development. While these recommendations are researched- based and highly recommended, they are intended to facilitate the process of decision-making as managers explore how to implement the 90 percent of the 70-20-10 model which relates to informal learning; learning through engagement in real world projects and learning through social interactions, such as coaching and collaboration.

Project Recommendations

This study, as well as others (Crouse et al., 2011; Hicks et al., 2007), revealed that people rely on various methods of learning to advance their professional development. However, regardless of the methods used, work assignments consistently serve as the foundation for informal learning. People learn by engaging in real world work projects, trial-and-error while working on these projects, collaborating with others as they engage in projects, and receiving coaching related to their work on projects. Work assignments provide a medium for applying acquired knowledge and skills; they guide people in determining what is worth learning; and they serve to focus the developmental efforts of individuals engaged in project.

Learning through participation in work activities is not ad hoc, but rather transferable to other projects and situations. Workplace learning is not only concerned with developing competencies for an immediate project, but also with developing and expanding competencies that can be applied to other projects (Boud & Garrick, 1999). At its core, learning through engagement in work projects is a form of experiential learning. Through the lens of experiential learning, Bard and Wilson (2013) contend that the workplace is an experiential learning environment. To engage in work activities is to experience, feel, and to understand them through the process of becoming immersed in those activities. The most powerful learning comes from direct experience through a process of taking action and noticing the consequences of that action (Senge, 2006). As employees work on projects and implement solutions, not only are they able to learn through the process of analysis and solution determination, but also through collaboration, coaching, and observing the consequences or results of their actions. By working on a variety of projects, they have the opportunity to apply what they have learned on previous projects to whatever project they are currently working on.

Recommendation 1: Authentic Projects

Projects should require participants to engage in authentic projects with realworld implications and consequences and with limited timeframes to achieve defined project goals (DeFillipi, 2001). Central to informal workplace learning is the engagement of individuals in everyday activities and projects (Billett, 2001b). Throughout the study, participants confirmed that projects were the foundation to their learning and development.

Recommendation 2: Focus on Learning

Participation in projects should not only be for the purpose of achieving defined project outcomes, but also for the purpose of facilitating individual and collective learning (DeFillipi, 2001). Study participants revealed that project-based learning facilitated the acquisition, enhancement, and application of knowledge and skills used to improve on-the-job performance. Learning should not be incidental or ad hoc, but rather it should be a strategic outcome of very project.

Recommendation 3: Accountability

Associates should be accountable for the quality, effectiveness, and efficiency of the outcomes they generate. However, the level accountability should be commensurate with their level of knowledge, skills, and competency. Study participants consistently mentioned the importance of generating products and delivering services that improved the learning and skill development of learners. Within a project team, shared responsibility and accountability on real problems promotes learning and problem solving (Marquardt, 2011).

Recommendation 4: Reflection

Project-based learning should provide project members with the opportunity to engage in group and individual reflective practices to make sense of their project experiences and its meaningfulness. According to experiential learning theory, the opportunity for individuals to reflect on their experiences facilitates their capacity to take deliberate and purposeful action. The process of reflection, particularly as it relates to project-based learning, enables associates to learn from what they have done well and from their mistakes.

Social Interactions Recommendations

A simple fact is that people learn from others. One of the findings of this study is that participants relied heavily on coaching and collaboration as factors contributing to their professional development. A study by du Toit and Reissner (2012) that the building of shared experiences laid the foundation for learning, as it was a social affair. The 70-20-10 model of development suggested that 20 percent of one's professional development can be attributed to interactions with others (Lombardo & Eichinger, 2011), such as coaching and collaboration. Both of these developmental methods provide people with feedback and information that contribute to their overall learning, which oftentimes occurs through dialogue and discussion within the context of a work project. The relationship between learning and social interaction in the workplace is well established as evidenced by the work of researchers over the years (Billett, 1995; de Vries et al., 2013). More broadly, social learning theory provides a theoretical perspective on how experience and learning occur within a social milieu (Yardley, Teunissen, & Dornan, 2012).

Recommendation 5: Context

Create a supportive team environment that encourages social interactions through coaching and collaboration. Coaching and collaboration are two essential processes that occur within a team environment. Hicks (2007) learned that one of the methods employees relied on the most to facilitate their learning was working and interacting with others. Reflecting Hicks' sentiment, Fenwick noted that "Work communities are powerful sites of identity, where individual workers' desires for recognition, competence, participation, and meaning are both generated and satisfied" (p. 22). Teams provide the context social interactions to create engaging, supportive, and effective learning environments (Baron, 2013; du Toit & Reissner, 2012; Hagen & Auilar, 2012). Performance is dependent upon individual excellence and how well members of a team work together (Senge, 2006).

Recommendation 6: Dialogue and Discussion

Promote interaction among team members by encouraging and actively promoting dialogue and discussion. Through dialogue and discussion, team members are able to gain insights not attainable to individuals alone. Theoretical physicist, David Bohm described a dialogue as "something more of a common participation, in which we are not playing a game against each other, but with each other" (Bohm, 1996, p. 7). In contrast, discussions involved the process of presenting and defending different views with the intent of eventually settling on the best solution. Both dialogue and discussion were complementary processes. Bohm (1996) noted that different opinions among people are based on variations in their past experiences. Dialogue and discussion, therefore, entailed a stream of interactions between members of a team or group through which emerged some new understanding. The purpose was to go beyond one individual's understanding by exploring complex issues from several different directions (Bohm, 1996). As this process occurs, it begins to shift the mental models that participants bring into the

dialogue. Collaboration and coaching rely on the effective exchange of information through dialogue to facilitate an expansion of one's learning leading to improved performance.

Recommendation 7: Feedback

Provide ongoing specific feedback, throughout the course of a project, to facilitate both learning and performance improvement. Within the context of work feedback is critical to improving individual learning and performance (Mulder & Ellinger, 2013). It is a term that may be conceptualized as the process of providing someone with information regarding the level of their learning and performance (Agarwal et al., 2009; Hattie & Timperley, 2007). Feedback can provide a worker with information as to whether or not they understand a concept or process and it can provide information as to their capacity to perform certain tasks or functions to a level that is acceptable. It is information that can identify errors thus enabling an individual to take corrective action. Receiving information about "one's learning and behavior significantly contributes to one's sense of control" (Wlodkowski, 2008, p. 20) and is vital to intrinsic motivation, learning, and performance. In Wlodkowski's estimation feedback is "probably the most important communication" (p. 313) that managers and peers can regularly use to enhance competency and performance. It is a critical component of any learning process because it allows learners to reduce the discrepancy between actual and desired knowledge (Butler, Godbole, & Marsh, 2012).

Recommendation 8: Collaboration

Provide and encourage the collaboration between team members to enhance learning, problem solving, the exchange of information, and improved performance. Collaboration was defined as the "synergistic relationship from when two or more entities working together produce something much greater than the sum of their abilities and contributions (Sanker, 2012, p. 3). Collaboration with colleagues provides feedback, introduces new ideas, and challenges conventional thinking leading to learning and improved performance (Chace, 2014; Clark & Mayer, 2011; de Vries et al., 2013). In addition, collaboration has demonstrated to promote more favorable attitudes to learning and higher levels of motivation toward learning and performance (Chace, 2014).

Recommendation 9: Coaching

Provide on-going coaching as required by individuals and the team. While there are many definitions of coaching, it can be viewed as a structured process of human development focusing on the "interaction and the use of appropriate strategies, tools and techniques to promote desirable and sustainable change" (Bachkirova, Cox, & Clutterbuck, 2010, p. 1) within an individual. Just as with collaboration, setting clear, specific, and personalized goals is essential to the coaching process (Cavanaugh & Grant, 2010). From a cognitive behavioral coaching perspective, the main goals of coaching center around achieving realistic goals, facilitating self-awareness, equipping the individual with more effective thinking and behavioral skills, and improving one's ability to self-regulate and self-coach (Williams & Edgerton, 2010). Essentially, coaching is an ongoing partnership with the aim of achieving targeted outcomes. A study by du Toit and

Reissner (2012) yielded the conclusion that without exception, among study participants, coaching was the most significant element leading to individual and group learning. Participants attributed a high level of importance to both team and individual learning afforded them through the coaching process. It appears that coaching provided a substantial bridge between team development, individual development, and increased performance. Studies consistently demonstrate that practice, feedback, and coaching can lead to significant improvements in learning and performance (Evers, Brouwers, & Tomic, 2006; Wlodkowski, 2008; Wright, 2005).

Recommendations Relating to Purposefulness

Through the comments of study participants, the role of purposefulness in learning and performance is made abundantly clear. Billett (2001b) noted that a key concern in workplace learning is developing purposeful knowledge and skills that can be immediately applied to executing the functions and responsibilities of their job. The responses of study participants reveal the relationship between learning and their desire to engage in new roles or expanded roles. Also, learning for the purpose of increasing their level of competency and improving their performance was also quite evident. The developmental goals individuals set for themselves were reflective of their sense of purpose as it related to learning and development. In addition, their assessment of their competency level was also reflective on their sense of purpose. Research has demonstrated that improvements in self-assessments correlated with improved learning and job performance (Brown, Sitzmann, & Bauer, 2010).

Recommendation 10: Meaning

To the extent practicable, engage project members in projects performing functions they deem as meaningful and relevant. Research consistently supports Knowles's assumption that individuals pursue those learning opportunities leading to the acquisition of knowledge and skills enabling them to satisfy some need (Wlodkowski, 2008). When this occurs, the element of meaning is contained within the work experience. Chalfsky (2010), in promoting his meaningful work model, recognized that developing one's potential and pursuing continuous growth through engagement in work activities contributed to a more meaningful work environment. Within the workplace, as people engage in projects and pursue goals that having meaning for them, they learn and acquire the requisite skills to accomplish those goals (Knowles, Holton, & Swanson, 2005). Another component of Chalfsky's meaningful work model was mastering one's performance (Chalfsky, 2010). Meaning, according to Chalfsky, could be found in the act of performing effectively toward the end of solving a real world problem and improving an organizations effectiveness. It was not the mere accomplishment of an outcome that was meaningful. In order, therefore, for work experiences to be meaningful, employees need to develop the competencies that enable them to perform key functions that will yield impactful outcomes.

Recommendation 11: Goals

Create specific and challenging learning and performance goals. The learning goals are intended to focus on the desired learning outcomes for each team member resulting from participation in the project, while the performance goals define the performance outcomes of both the team and individual team members. An abundance of research indicates that specific and challenging learning and performance goals positively impacts performance (Crossley, Cooper, & Wernsing, 2013; Grant Halvorson, 2010; Kleingeld, van Mierlo, & Arends, 2011). The rationale for the efficacy of specific but difficult goals is quite straightforward. First, the specificity of goals informs people what is expected of them thus reducing ambiguity (Grant Halvorson, 2010; Locke & Latham, 2002). If what a person is striving for is too vague, it is easy to become distracted and lose sight of one's targeted outcome. Second, difficult goals can have an energizing effect by requiring individuals to put forth greater effort (Grant Halvorson, 2010; Locke & Latham, 2002). As to the quality of difficulty, a key qualifier is difficult but possible. The more difficult a goal, the more concentrated effort, focus, and commitment is necessary to achieve the goal. If the goal is not challenging, a person may become quickly bored or disinterested thus abandoning pursuit of a goal. Success in meeting a challenging goal is gratifying, rewarding, and leads to a greater sense of self-satisfaction and well-being (Grant Halvorson, 2010).

Recommendation 12: Self-Assessment and Self-Regulation

Encourage project team members develop their self-assessment and selfregulatory skills. Self-regulation and self-assessment are processes intrinsic to professional development (Sargeant, Mann, van der Vleuten, & Metsemakers, 2008). According to Sargeant et al. (2008), it is self-evident that professionals engage in selfassessment to guide their self-regulation of learning and performance, as is typically expected of them. Most workers improve their skills through trial-and-error (Lohman, 2005). Doing so, requires the ability to self-assess one's level knowledge and performance. The process of self-assessment combines the ability to reflect on experiences, seeking feedback from others, and self-monitoring. Increasingly employees are expected to possess the capacity to accurately evaluate their strengths and weaknesses (Mann, 2010; Sitzmann & Ely, 2011) to determine what they need to know and where they can access the information needed to improve their performance (Duffy & Holmboe, 2009). Mann (2010) noted that self-assessment was foundational to "being a selfregulating professional" (p. 305). Self-regulation (SR) is defined as "processes that enable an individual to guide his or her goal-directed activities of time and across changing circumstances, including modulation of thought, affect, and behavior" (Porath & Bateman, 2006, p. 185). The purpose of self-regulation is to further the interests of individuals through the capacity to manage their thoughts, behaviors, and impulses in such a manners that guides their goal directed actions (Sitzmann & Ely, 2011).

Recommendations Relating to Structure

Throughout this study participants expressed their desire to advance their learning to increase their level of competency to better perform certain functions. The alignment of work experiences to learning and the development of desired competencies, which lead to performance improvements, is not an ad hoc process. It requires some level of structure. It is an error to believe that learning will result by doing (Billett, 2001b). The mere participation in workplace activities does not guarantee effective or productive learning. It is inadequate to believe that learning simply by doing will yield effective results (Billett, 2001b). While experience underlies all learning, it does not necessarily

result in learning (Beard & Wilson, 2010). Structuring workplace learning experiences is vital to optimizing learning and performance. It is for this reason that many organizational theorists concentrate on the systems and structures that facilitate the learning of individuals within an organizational setting (Keegan, 2001). Billett (2001c) noted that particular work environments offer guidance and experiences premised on the goals to be attained and the work functions necessary to achieve them. In this way, work activities are structured by the everyday requirements of the business. It is argued, therefore, that workplace learning experiences need to be structured for learning and performance improvement, needed to achieve business outcomes, to occur (Billett, 2001b; Moore, 2010). Understanding the way people learning within the work environment is essential to determine how to structure workplace learning experiences (Billett, 2001b). Work environments are structured and goal-directed with purposeful processes, procedures, and interactions (Billett, 2002). In this section, functional diversity, scaffolding, and developing competency will be explored to illustrate the need for structuring workplace learning experiences. However, from a systemic perspective, structure also involves the alignment of work projects, goals, and social interactions.

Recommendation 13: Functional Diversity

Project members should be afforded the opportunity to work on a variety of projects that enable them to acquire new skills, increase their level of competency, or expand their exposure to different roles or activities. Study participants revealed that engagement in a diversity of workplace experiences not only afford them greater learning opportunities but also facilitated the discovery of what types of duties, functions, and roles were a best fit for them. Ibarra (2003) suggested that individuals learn about their work identities by engaging in different roles and work activities. People learn who they are, within the context of work, by first engaging in a range of functions that can serve as the basis for reflections on work identity. Through engagement in a diversity of workplace experiences, employees are able to discover what types of duties, functions, and roles are a best fit for them. Flexibility if an often repeated theme among desired workplace attributes (Fenwick, 2001). The need for workers to be flexible and having the capacity to be responsive to evolving workplace challenges is essential to individual, team, and organizational performance. In that the types of workplace activities that engage people influence what they do and what they learn (Billett, 2001b), engaging people in a variety of projects increases operational flexibility. As associates participate in a broader range of projects, requiring different skill sets, they expand their work experiences, increase the range of learning opportunities, and extend their competency. In doing so, workers increase the dexterity with which they can respond to a wider array of challenges and problems.

Recommendation 14: Scaffold Work Activities

Use scaffolding and fading to sequence work related support as a means of facilitating the development of greater levels of responsibility and autonomy. Structure is also reflected in the sequencing of workplace learning experiences. Billett (2001b) refers to the process of scaffolding, which is providing learners with opportunities to acquire requisite knowledge and skills by engaging them in work projects that are within their capacity to learn. Additionally, it captures the idea of adjustable support that can be

provided as required by learners. Early in a project, an associate may require more support and guidance than may be required toward the latter stages of a project, particularly as the associate increases in ability. The flip side of scaffolding is fading, which consists of a gradual reduction of support to the point that learners can perform a function independently and satisfactorily (Billett, 2001b). It is important to keep in mind that the goal of workplace learning is not to learn but to perform. Actual on-the-job performance is the focus of workplace learning and not an understanding of what is required to perform. To be competent, an individual must be able to apply knowledge and skills in the execution of job functions that achieves business objectives (Knud, 2011). The level and duration of scaffolding and fading must be structured to fit within capabilities of workers relevant to the functions to be performed.

Recommendation 15: Competency

Structured learning experiences should promote learning to improve competency and drive performance. Self-determination theory (SDT) maintains that the need for competency, relatedness, and autonomy impacts an individual's level of motivation, engagement in activities, and performance (Greguras & Diefendorff, 2009; Ryan & Deci, 2000). Competency is viewed as the capacity of an individual to achieve desired outcomes (Greguara & Diefendorff, 2009). However, the drive for competency "is not one that is acquired but one that already exists and can be strengthened or weakened through learning experiences" (Wlodkowski, 2008, p.310). According to SDT, it is the satisfaction of a person's need for competence that increases autonomous motivation and leads to improved performance (Gregura & Diefendorff, 2009). Swing (2010) suggested that achieving higher levels of performance requires sustained and disciplined learning and practice. The opportunities for this sustained learning and practice occurs when working on assigned work projects. According to self-determination theory, "satisfying one's need for competence increases one's autonomous motivation, and this autonomous motivation leads to optimal performance" (Gregura & Diefendorff, 2009). As individuals assume multiple roles, within their work environment, they seek to be recognized for the expertise and skills acquired relative to those roles (Yeo & Li, 2011).
Implementation

As with action learning, there is no singular approach or simple formula for implementing a structured informal workplace learning solution within a corporate

environment. Each manager, each team, each team member, and each project is different with their own attributes. In this section, a framework for implementing informal workplace learning is offered.



Managers are encouraged adopt the suggestions, offered below in an effort implement the recommendations offered in the previous section.

Vision

Senge (2006) advanced the notion of shared vision as a discipline of a learning organization. A shared-vision, from his point-of-view, is more beneficial to an organization than are a few disparate visions promoted by individuals. It is a quality that must grow, over time, of its own accord rather than being a singularly prescribed formula to be commonly followed by members of an organization. To facilitate the creation of a shared vision, the director and program managers will receive and be afforded an opportunity to review this white paper. The first step in the process is to conduct a brief meeting with the director and the three managers to introduce the white paper, discuss the problem it addresses, and to distribute it. Of importance during this first meeting is to create an acknowledgement of the existing limitations and challenges of the 70-20-10 model, particularly those portions of the model relating to informal learning. Allowing

approximately a week for review of the white paper, the second step is to engage in a longer meeting with this leadership group to briefly review the white paper and to discuss questions, thoughts, or concerns of managers. After approximately another week, a third meeting will be held to decide if the respective teams will proceed to execute the projects recommendations and to facilitate a discussion as to how each program manager may begin to implement the suggestions and recommendations offered in this white paper.

Roles

Sustained involvement, commitment, and support of the management team is essential for the successful implementation of the recommendations. Competing demands and unexpected challenges have a tendency to erode ongoing support for well-intentioned and well-planned projects. The director, or one of the managers, may be selected to serve as learning champion, who serves as a cheerleader to promote sustainability, interest, and engagement in the program. A function of the learning champion will be to work with managers to identify some best practices that will facilitate improvements. The learning champion can also work with managers to overcome challenges and difficulties. By encouraging continued dialogue and discussion, the champion can sustain interest and focus on informal learning throughout the customer service training teams.

Responsibility for developing and executing a strategy rests with the respective program managers, of which there are currently three. This affords managers the opportunity to apply the recommended approaches in a manner most meaningful to them and their teams. The role of managers is multifaceted. Overall, they plan, monitor, provide guidance, and assess learning outcomes. Specifically, there are several things managers can do in the exercise of their roles. First, they can assign team members to projects that will facilitate growth and development. Second, they can work with team members to identify developmental objectives they want to achieve through participation in a specific project. Third, throughout the course of the project, they can monitor the progress being made to achieve the developmental goals. Fourth, also during the course of a project, managers can provide feedback and coaching as the need arises. Fifth, managers can also encourage reflection through discussions on the project. Clearly, managers play a vital role in facilitating informal learning.

Another source of support may be a project leader, who may be an individual's manager or a senior and highly skilled peer. Project leaders are vital to the process of project-based learning. Besides performing their own duties regarding project management and training development, they keep team members focused on performing the respective responsibilities, they provide guidance and targeted feedback to team members, and they conduct team meetings. Through the team meetings, they facilitate collaboration as a means of sharing ideas, problem solving, and team learning. Through specific feedback, dialogue, discussion, and the collaborative process, the team contributes to the learning of each of its members. Working an interacting with others is a heavily relied method of learning within a team environment (Crouse et al., 2011; Hicks et al., 2007). The project leader creates conditions and mindsets conducive to developmental team. Team leaders, therefore, must have the technical skills, the leadership skills, and the organizational skills to make this happen.

Recommendations and Context

An environment must be created to enable the effective implementation of the recommendations outlined in the previous section. Peter Senge (2006) defined as learning organization as those "where people continually expand their capacity to create the results they truly desire" (p. 3). Informal learning requires a balance between driving to achieve project objectives and promoting both team and individual learning. Just as effort must be directed to achieving the goals of a project, the same level of effort must be concentrated on facilitating and ensuring learning. A strong culture where the performance interests of the organization and the development interests of individuals are integrated and sustained is essential (MacGregor & Semler, 2012). Creating an environment that sustains this balance is as much a mindset on the part of leaders as it is a set of prescribed actions.

Mindset, or mental models, has a profound effect on the decisions and actions of people (Senge, 2006). Beliefs, mindsets, and mental models are deeply ingrained cognitive patterns derived through learning and experiences. While they are generally resistant to change, they can be altered through consideration of and reflection on alternative courses of action. So powerful are these mental models, Argyris (1993) put forth the argument that people do not always act in a manner with what they say (espoused theories) but they do act in a manner consistent with their mental models (theories-in-use). Two people with different mental models can observe the very same event and render very different descriptions because they perceived and interpreted the events differently based on their discordant mental models (Senge, 2006). It is important,

therefore, for managers to adopt and promote a "growth-oriented mindset" (Jordon & Audia, 2012, p. 225).

When considering whether or not to implement certain recommendations, one of the factors managers should consider is whether or not the recommendation promotes a growth oriented mindset. For example, Recommendation 2 suggests a focus on learning. As Wlodkowski (2008) stated, people "want to matter" (p. 309) and it is this desire to matter that enhances motivation and engagement in workplace activities. By working on projects, individuals have the opportunity and the motivation to learn specific job relevant skills and apply them to real world projects. Learning coupled with the capacity to apply what they have learned, while addressing an authentic problem or issue, adds meaning to both the learning process and to work experiences. A focus on learning, therefore, would clearly reflect and contribute to a growth oriented mindset.

Another example of how the aforementioned recommendations aid in creating a growth mindset in both managers and associates is the setting of learning goals for each project. While the goal of workplace learning is to perform, performance cannot be improved without effective learning. Learning in the service of improved performance is the sine qua non of informal learning. Work projects, according to Illeris (2011), need to incorporate specific learning goals to make explicit targeted learning opportunities and the focus of learning during the course of a project. Through this process, learning can be pursued in a structured, deliberate, and authentic (Billett, 2001b; Illeris, 2011; & Weststar, 2009) manner and the necessary support provided for learning to ensue.

Evaluation

The investment, by companies, in workplace learning is substantial (Griffin, 2012). Yet, despite the importance of evaluations to the effectiveness and sustainability to workplace learning there is a "paucity of evaluation activity" (Griffin, 2012, p. 393). Professional development is the focus of workplace learning with the ultimate intent to improve organizational performance and competitiveness. With this in mind, it is essential that evaluations become an on-going and vital component of employee development programs. Unfortunately, as Griffin indicated, such tends not to be the case. To encourage program managers to engage in ongoing evaluation of their staff development efforts, this section offers an approach to conducting evaluations. The results of the recommended performance evaluation will serve the interests of the program manager, project team members, and the business clients for whom the project was conducted.

Fundamentally, a performance evaluation is recommended and outlined in the following paragraphs. The evaluation is intended to serve two purposes: (a) to evaluate the effectiveness of the work efforts of team members as they relate to the outcomes of a project and (b) to provide project team members with feedback relative to their individual efforts and contributions. There are several qualities of the suggested evaluation approach. First, the process outlined below serves both formative and summative purposes. It is a formative evaluation in the sense that the information derived from the evaluation can be used to improve work-based learning efforts and it can be used by individual team members to improve their individual contributions to future projects. The

recommended approach is also a summative assessment in that it examines the projects outcomes and outputs to assure their alignment with the goals of the client organization for which the project was initiated. Second, the evaluation approach is intended to be conducted on an ongoing basis for most training projects and is to be conducted by the respective program managers and their training teams. Third, in that all projects are goalbased, so too is the evaluation process. Finally, the evaluation incorporates qualitative and quantitative measures as deemed appropriate, for a specific project, by the program manager.

There are two components to the recommended evaluation process: the evaluation framework and performance measurement. Barrowing the concept of strategic alignment from the Balanced Score Card (BSC) approach defined by Kaplan and Norton (1996) and the conceptof strategic alignment, from Labovitz and Rosansky (1997), a framework for

evaluating workplace learning efforts can be constructed. When considering an evaluation of workplace learning, it is important to keep in mind the twofold purpose of workplace learning is to assist the business in achieving its goals and to improve the learning and performance of individual contributors.





There are four elements to the evaluation framework: goals and strategies of business organization; training and development needs of client organizations served by learning and development teams; internal learning and development goals, strategies, and processes; and the skills and competencies required of training associates to meet the needs and expectations of the client organizations. Informal learning outcomes must align with the goals, strategies, and needs of business organization if those outcomes are intended to contribute to the achievement of business objectives. Workplace learning professionals function within a business environment. Project-based learning involves participation in real world projects with real world impacts. The learning that occurs through involvement in these projects, the actions taken, and the results produced by the projects should align with the goals of the business. According to Kaplan and Norton (1996) a learning and growth perspective is foundational to executing the business strategy. Pangarkar and Kirkwood (2009) suggested that learning and development professionals may want to focus less on accomplishing training objectives and more attention on aligning expected results with organizational needs and strategic objectives. From the perspective of many business leaders, according to Pangarkar and Kirkwood (2009) learning professionals are too preoccupied with delivery outcomes rather than measuring effectiveness or impact. The evaluation process should begin by defining framework components to ensure the outcomes of informal learning of training staff members

The second component of the evaluation process focuses on performance measurement, which is designed to provide useful performance feedback to the individual associate and the process of workplace learning. One measure to be considered is the outcomes of the project. Outcomes represent the kinds of results that a project was intended to produce (Poister, 2010). What were the outcomes derived from the project? For example, was the business able to implement a new software program, as it intended, with minimal disruption to customer service? If available, program managers may be able to compare the number of customer service calls processed prior to the project with the number of calls processed after the new software and training was implemented. From an alignment perspective, managers can determine if the outcomes of the project were consistent with goals of the business and did they meet the articulated needs of the business?

Another potential measure is training outputs (Poister, 2010). They represent the immediate products, services, and assets produced by the training team to meet the project objectives and the needs of the client organization. For example, outputs may be the number of courses developed, the number of lessons, the number of online modules versus the number of instructor led modules, the number of instructional aids or job aids that were developed, and the number of assessment instruments that may have been constructed. The outputs can be evaluated from both the team level and the individual level. What were the outputs of the project team? What were the outputs of each team member? Further, the outputs should also be considered within the evaluation framework. Were the outputs consistent with the project objectives? Did internal processes within the project team or the training organization facilitate or impede outputs? Did they contribute to meeting client needs? Did the outputs serve a strategic business goal? Outputs can be viewed through the lens of the project team, individual team members, and alignment.

A third possible measure is efficiency (Poister, 2010). Efficiency can be assessed at both the team and individual levels. Efficiency may be viewed as the ratio of outputs to the level of effort consumed in delivering those outputs. For example, how many hours did it take the project team to develop three self-paced online modules of instruction? From the perspective of the project team, the level of effort for one project can be compared to the level of effort it took to produce a similar output on another project. Similarly, the amount of time it took for an individual to develop a learning asset can be compared to other team members or to similar work outputs from the same person but on previous projects. Relative to internal processes of the evaluation framework, program managers, in discussion with their project teams, can evaluate whether or not internal processes increased or decreased efforts to optimize efficiency.

Quality is another potential measure (Poister, 2010) that can be considered by program managers. Accuracy, standards, characteristics, and attributes are possible indicators of quality. For example, was the content of an online module accurate and consistent relative to the processes of the client? Did the online modules scaffold problem solving exercises to facilitate learning and self-confidence? Applying the elements of the evaluation framework, program managers can assess the quality of outputs in terms of meeting internal standards of the training team and the expectations of the client. Quality can be assessed at both the project and individual levels.

Finally, client satisfaction can be assessed (Poister, 2010). Typically, client satisfaction relates to the outputs and quality (Poister, 2010). When assessing client satisfaction outcomes, outputs, and quality may be assessed as separate elements rather than combining them into a single rating. By doing so, the information received through client interviews or surveys will provide more targeted feedback to the project team and

individual team members. However, client satisfaction is more a reflection of the project results than those of individuals. When applied to the evaluation framework, client satisfaction relates to meeting the needs of the client and assessing the internal processes of the training team.

Implications

The company relies on the 70-20-10 model for its approach to staff development. The model states that 70 percent of workplace learning occurs from on-the-job experiences, learning from other accounts for 20 percent of one's learning, and, finally, 10 percent of learning results from training courses. Essentially, 90 percent of workplace learning can be attributed to informal learning methods. These numbers were based on a series of studies in the 1980's conducted by the Center for Creative Leadership (Lombardo & Eichinger, 2011). However, in 1996, a study by the Educational Development Center found that 70 percent of workplace learning is informal (Forman & Keen, 2012). Then, in 1997 the U. S. Bureau of Labor Statistics also reported that 70 percent of learning in the workplace was attributed to informal learning (Lohman, 2005). Without too much of a stretch, it can be reasonably estimated that 70-90 percent of workplace learning was attributed to informal methods.

However, none of these studies addressed the issue of what types of informal learning experiences most effectively led to learning. Crouse et al. (2011) cautioned that not all learning in the workplace was productive or positive. Sometimes, individuals may acquire misinformation or adopt counterproductive attitudes. It was also revealed, by Day (2010), that learning from workplace experiences may be more difficult than thought because (a) an individual may not be aware if there is something to be learned; (b) it may not always be understood as to what needs to be learned; and (c) it may not be clear whether or not something was learned so as to actually impact performance. The recognition that informal learning is a commonly relied upon method of workplace learning is a valuable, but insufficient, insight.

The value of this project to stakeholders is in its recommendations of how informal learning can be structured and promoted within the workplace. While this study of six customer service trainers within a corporate environment is of limited size and generalizability, it does provide some insights that can guide training managers in implementing informal learning. The themes, attributes, and structures of informal learning identified in this study were similar to generic studies across various other professions (for example, Crouse et al., 2011; and Hicks et al., 2007). This reinforces the potential utility of recommendations detailed in this study.

Learning is important to both the organization and the individual. For organizations, developing a competent and adaptive workforce is vital to their capacity to compete in a world of changing markets and economies. Millions of dollars are invested in workplace learning programs (Noe et al., 2010). Providing insights into the structure of informal learning experiences can serve to improve the execution of informal learning within work environments. From the perspective of the individual associate, as people perceive themselves to be more effective in the performance of their jobs, they see themselves as volitional and autonomous in their learning, which increases their sense of self-efficacy and motivation. Informal learning is pervasive in today's workplaces. Improving its effectiveness advances the cause of both organizations and individuals.

Illeris (2011) noted that project related work can be highly effective and relevant to promoting learning, competency development, and improved performance because through project-based learning individuals are able to engage in actual projects. Incorporating an action based learning approach, as outlined in this paper, into the day-to-day operations of training team's promises to yield several benefits for an organization (Marquardt, 2010): (1) it enables organizations to simultaneously pursue key projects while promoting learning and competency of teams and associates; (2) facilitates the transformation to a learning organization thereby offering the prospect of more resource-effective and flexible responses to new challenges and changes; (3) builds high-performing and self-directing work teams; and (4) generates an organizational culture that effectively drives performance through a continuing and deliberate focus on professional development.

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Appendix B: Initial Invitation to Participate

Dear < Insert Participants Name>

I am Robert Bing, a doctoral candidate at The Richard W. Riley College of Education and Leadership of Walden University. Although you may also know me as a training manager, this study is separate from that role and is being conducted in my role as a doctoral student. I am inviting you to participate in a study I am conducting to further an understanding of workplace learning. The study is entitled, "A Single Embedded Case Study of Perceptions of Customer Service Trainers Relating to Informal Workplace Learning Experiences."

The purpose of this study is to explore and describe the informal workplace learning experiences and the meaning assigned to those experiences by training associates as it relates to their professional development and to improved performance within their respective roles.

This invitation is being extended to you because your background and professional experiences in customer service training, along with your perceptions relating to workplace learning, will provide meaningful insights that will enable me to gain an indepth understanding of informal learning within the workplace. This study will include other members of the customer service training organization, who are interested in voluntarily participating in this study to assist in increasing an understanding of workplace learning.

The requirements of this study include participation in a face-to-face or telephone interview, answering by email a few follow-up questions sent to you by the research via email, reviewing verbatim transcripts of your interviews and providing any corrections, and having your interview recorded.

The interview is expected to take 70-90 minutes and will be conducted at a time that is convenient to you. A copy of the Interview Protocol outlining the questions to be asked during this interview accompanies this email. It should be noted, however, that some clarifying questions may be asked during the interview in addition to those specified in the Interview Protocol. The interview will be recorded and transcribed for analysis. Additionally, you may be asked to answer follow-up questions sent to you by email. These questions are intended to clarify points you made during the interview. Also, you will be sent a copy of the transcribed interview and asked to review it for accuracy. Any information you would like deleted or changed can be done at this time.

Any information you provide will be kept confidential. The names of individual participants will be not identified in this study. Pseudonyms will be used in place of participant's names and any other identifying information will not be included in the

study. All data will be stored on a password protected external hard drive, which will be stored in a secure location.

You will not be required to discuss any issue that causes great discomfort and which you are not willing to discuss. You may decline to answer any question. The interview will be terminated at any point at which you are no longer comfortable proceeding. You will have the opportunity to review transcribed information obtained during the interview for accuracy.

There are no monetary incentives for participating in this study. Participants will receive gift bags valued at approximately \$50 at the end of the interview process. If at any time you change your mind about participating in this study, you are encouraged to withdraw your consent and to cancel your participation.

Again, you participation in this study is entirely voluntary.

Attached to this email is a copy of the Interview Protocol, outlining the questions to be asked during the interview, and the Consent Form.

If you are willing to voluntarily participate in this study, please complete the Consent Form by filling in your name and date as prescribed in the form and email it to me at: <u>Robert.Bing@Waldenu.edu</u>.

If you have any questions, please feel free to contact me via email (<u>Robert.Bing@Waldenu.edu</u>). Or, you may contact my study chair, Dr. Claudia Santin at Claudia.Santin@waldenu.edu.

Thank you for considering my request,

Robert (Bob) Bing Robert.Bing@Waldenu.edu

Appendix C: Reminder Notice

REMINDER NOTICE

<Insert Participant's Name>

I am just checking on an e-mail that I previously sent to you regarding your participation in a study that I am conducting as part of my doctoral studies at Walden University. Last week I sent an e-mail inviting you to participate in a study that I am conducting pertaining to the perceptions of customer service trainers relating to informal workplace learning experiences. Attached to the email were a Consent Form and a listing of the types of questions to be asked of participants during an interview. To date, I have not received a response and was just checking to ensure that you received the e-mail. If you have not received the e-mail or any of the attachments, specified above, please let me know and I will be more than happy to resend it.

If you want to participate in the study, please return the Consent Form with your name and date within the next five days. If you have any questions you want answered before completing the form, please do not hesitate to send me your questions at <u>Robert.Bing@Waldenu.edu</u>. However, if you decide not to participate in the study, you do not need to respond and, after five days, I will assume you have elected not to participate in the study. Participation in this study is completely voluntary and whether or not you participate in this study, your decision will be fully respected.

Whatever your decision, I want to personally thank you for considering this invitation to participate in the study.

Sincerely,

Robert (Bob) Bing Robert.Bing@Waldenu.edu

Appendix D: Consent Form

CONSENT FORM

As an introduction, I am Robert Bing, a doctoral candidate at The Richard W. Riley College of Education and Leadership of Walden University. Although you may also know me as a training manager, this study is separate from that role and is being conducted in my role as a doctoral student. I am inviting you to participate in a study I am conducting to further an understanding of workplace learning. The study is entitled, "A Single Embedded Case Study of Perceptions of Customer Service Trainers Relating to Informal Workplace Learning Experiences."

This invitation is being extended to you because your background and professional experiences in customer service training, along with your perceptions relating to workplace learning, will provide meaningful insights that will enable me to gain an indepth understanding of informal learning within the workplace. This study will include other members of the customer service training organization, who are interested in voluntarily participating in this study to assist in increasing an understanding of workplace learning. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

Background Information:

The purpose of this study is to explore and describe the work place learning experiences and the meaning assigned to those experiences by training associates as it relates to their professional development and to improved performance within their respective roles.

Procedures:

If you agree to be in this study, you will be asked to:

- Read and complete the Consent Form prior to the start of any face-to-face or telephone interview.
- Participate in one face-to-face or telephone interviews with each lasting no more than 70-90 minutes.
- Respond by electronic mail (e-mail) a few follow-up questions sent to you by the researcher via email. Time commitment is estimated to be 10-20 minutes.
- Review verbatim transcripts of your interviews and provide corrections or suggested amendment. Time commitment is estimated to be 30-45 minutes.
- Have your interview recorded.

Here are some sample questions that may be posed to you:

• What is your current role with the training organization? Is it as a trainer, designer, developer, evaluation specialist, or mix of roles?

- Over the past two years, outside of formal external training programs and conferences, describe the most significant work-based learning experiences that have contributed to your professional learning and development as they pertain to your role(s) with the training organization?
- What is the basis or rationale for selecting these experiences as the most significant professional development learning experiences you encountered over the past two years?
- Specially, what did you learn from each of these experiences, did they contribute to improving your performance, and, if so, how?

Voluntary Nature of the Study:

Your participation in this study is completely voluntary and everyone will respect your decision whether or not to participate in the study. If you choose not to participate or to withdraw from the study at any time, you can do so without any penalty or loss of benefit to you. Whatever decision you make, it will be respected and will not in any manner affect your position or standing in the company or within the training organization. In addition, should you feel stressed at anytime during the study, you may stop at any time and you may also skip any questions that make you feel uncomfortable or you think are too personal.

Risks and Benefits of Being in the Study:

This risks associated with this study are minimal. As with any other study of this type, participation in the interviews, answering follow-up questions, and reviewing verbatim transcripts of interviews may add some to level of stress. It is not anticipated that the level of risk or discomfort resulting from you participation in this study will be greater than those ordinarily expected in daily life. More importantly, however, your participation will constitute a valuable contribution to furthering an understanding of workplace learning as it pertains to training associates within a customer service environment.

Compensation:

There are no payments, gifts, or reimbursements to participants in this study. However, this study affords you a voice, which otherwise may not be available to you, in furthering an understanding of workplace learning.

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or any other information that could identify you in the study reports. All identifying information will be stored on a password protected external hard drive that is separate from a hard drive containing working and report files and maintained in a locked file cabinet at a site away from the work environment. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at <u>robert.bing@waldenu.edu</u>. You may also contact my study chair, Dr. Claudia Santin at Claudia.santin@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 3121210. Walden University's approval number for this study is <Insert: **IRB will enter approval number here>** and it expires on <Insert: **IRB will enter approval number here>** and it expires on <Insert: **IRB will enter approval number here>** and it expires on <Insert: **IRB will** enter expiration date>.

Please print or save this consent form for your records.

Statement of Consent:

I have read the above information regarding the study and I sufficiently understand the study to make an informed decision and, therefore, consent to participating in the study. By filling in my name and date below and returning this form via email to the researcher, I am hereby giving my voluntary consent to participate in this study and I am agreeing to the terms described above.

Participants Name	
Date of Consent	
Researcher's Name	Robert Bing (Robert.Bing@Waldenu.edu)

Research Question: How do training associates perceive informal workplace learning experiences as having meaningful impact on their overall professional development and work performance?

- What forms and attributes of informal workplace learning have **contributed most** to professional learning and performance improvement?
- Upon what basis or rationale are workplace learning experiences deemed to be **meaningful**?
- Specifically, what areas of learning and performance improvement have workplace learning experiences contributed?

Pre-Interview Key Points

- Describe the purpose of the study.
- Review confidentiality guidelines.
- Answer any questions posed by the participant.

Interview Questions

Roles and Skills

- 1. As a member of the customer service training team, what are your primary roles and what are the key functions you perform in executing each of those roles?
 - a. How skilled are you in performing those key functions? Are you at a novice level, competent level, or expert level?
 - b. Upon what basis, logic, or evidence, do you base your assessment of performance level?
- 2. What are your perceived strengths and weaknesses relative to the performance of your current role(s)?
- 3. What role(s) would you like to learn and perform in the future?
- 4. What developmental goals do you have for yourself moving forward?

Learning Methods and Their Significance

5. As you are aware, (state company name) applies the 70-20-10 model of professional development (70% through assigned projects, 20% through coaching, and 10% through formal training classes). Which of these methods have you relied on the most for your own professional development?

- a. Do you consider it to be and effective method of professional development and, if so, why?
- b. Are there limitations to this approach of staff development and, if so, what are they?
- 6. Over the past one or two years, what were the most significant knowledge and skills you acquired that have led to improved on-the-job performance?
 - a. What is your rationale in selecting those knowledge and skills as being the most significant?
- 7. Please describe how you came to acquire those knowledge and skills. What approaches, methods, and/or experiences contributed most to the acquisition of those knowledge and skills?
- 8. What do you believe are the best approaches, methods, or experiences that most contribute to your professional development and, ultimately, to improved job performance?

Informal Workplace Learning

- 9. As previously mentioned most of one's professional development at (state company's name) occurs through participation in work assignments and coaching. How significant are these approaches to your professional development and why are they significant (or insignificant)?
 - a. Do these project-based learning approaches result in improved job performance?
 - b. If so, please cite some concrete examples of how they have led to improved job performance.
- 10. What conditions, experiences, or methods would you like to see incorporated into a program of professional development through work assignments and coaching that will optimize your learning and improve your on-the-job performance?

Appendix	F:	Sample	Interview	Transcript
rppendix	1.	Sumple		runsenpt

Structural Code	Code	Transcript		
Q1		I: As a member of the customer service training team, what are your primary roles and what are the key functions you perform in executing each of those roles? Q1		
R1	DelPresent	P: My primary role is training specialist so the primary role there is classroom delivery."		
R1	DevLearningAsset	P: But I also can but I also consider one of my primary roles to be supporting development and design of training.		
R1	AdmSchedule	P: And more recently a new primary role for me is getting into the world of staffing and scheduling training and working with the business to balance those kind of requests.		
Q1.1		I: So when you look at the classroom your key functions or your roles with regard to classroom what do you see as some of the key things that you do there? Q1.1		
R1.1	DelPresent (Gap)	P: Well in the classroom I think the key things that I do is deliver whatever content in the most clear way that I can and more importantly identify and being able to effectively close gaps for people in regard to that content.		
Q1.1.1		I: When you say close gaps, what kind of gaps are you talking about?		
R1.1.1	DelPresent	P: Just making sure that they fully understand what's being communicated and even can explain it and why it's important.		
Q1.1.2		I: Are you involved in the development of a class schedule or in the classroom set up or and, if so, is this part of the delivery function?		
R1.1.2	AdmSchedule	P: No, it's everything. Set up prior to and then typically the schedule is built and there are adjustments that I may need to make and I may need to involve others in making the proper adjustments.		

Structural Code	Code	Transcript	
R1.1.2	AdmTracking	P: And there is of course a lot of staffing issues that come up, attendance and things like that in the classroom that I would also need to manage in partnership with the business.	
Q1.2		I: With regard to the supporting development and design what kinds of key functions or activities do you perform there?	
R1.2	DevInstructionalAids	P: The largest body of work that I've done has been more around development of a course that's been designed and sort of passed on to me or pieces. Of a course, I should say, so that the key tasks are looking at the design of the course and in coming up with a way to develop it or to attempt to develop it into say a PowerPoint,	
R1.2	DevFacilitatorMaterials	or a facilitator guide,	
R1.2	DevLearnerMaterials	or a workbook depending on what the content is I'm working on	
R1.2	DevELearning	And in some cases developing a demonstration simulation or a sort of module self-paced module	
Q1.3		I: So with regard to your newest role, staffing and scheduling, what are some of the key functions there?	
R1.3	AdmComm	P: The key functions are participating in the customer service leadership team, staffing, and staff meetings kind of being the voice of the customer service training team on those calls as well as maintaining the schedule for the .com trainers assigning classes it and/or project work and communicating that and also keeping the team as well as the up upper managers informed about, you know, things that are going on in that world.	
Q1a		I: The next series of questions relate to the question is how skilled are you in performing those functions? Do you consider yourself to be a novice, competent, or an expert level.	
R1a	LevDelExpert	P: Taking those in pieces from a classroom delivery perspective I would consider myself at an expert level. From a design and development,	
	LevDesNovice	P: I would say novice when it comes to design,	
	LevDevComp	P: and may be little more toward competent at development	

Structural Code	Code	Transcript	
	LevAdmNovice	P: And then from a scheduling and staffing perspective I would say that novice right now I'm very new it's been a while since I participated in any of this kind of thing and never at the company	
Q1b		I: Upon what basis so classroom you rated yourself as expert, development as competent, design novice, staffing novice. So on what basis or logic or evidence do you base those assessments on?	
R1b	RatExperience	P: Largely, I base it on the amount of experience or exposure that I've had to each of those and particularly around the classroom delivery.	
R1b	RatFeedback	P: I can base that more on the feedback	
R1b	RatAssessment	P: and quiz results and survey results as compared to other trainers.	
Q2		I: Regarding each one of those specific roles, if we take a look at the delivery, development, design, staffing, what you perceive as you are perceived strengths and weaknesses in each one of those question?	
R2	StrDelFacLearning	P: The strengths in a delivery environment I believe are engagement, engaging learners in the classroom	
R2	StrDelFacLearning	P: and also helping them understand the content and why they need to know it.	
R2	ImpDelClsMgmt	P: I think that a weakness in the classroom for me is adherence to a schedule, a little classroom management potentially. I had another weakness I was going to list and it's lost. I've lost it.	
		P: In terms of the other roles that go on strengths in the design and development area I think are interpretation of the design and the intention of the design.	
Q2.1		I: Let's just take those separately. We will take design first. What are your strengths with regard to design?	
R2.1	StrDevApplyDesign	P: I think the strength is the logical and clear way that I can think about it design and the alignment of the design.	
R2.1	StrDevApplyDesign	P: I think that somewhat by nature and somewhat by training I think that way. I just think in a clear path and alignment, which is inherent to me. So	

Structural Code	Code	Transcript		
		alignment I mean looking at a design being able to say if this is the objective then the content were training should match that and anything we are expecting to learn. Anything coming out of that training should also match that and I can look at something like that and I can say that's just how they should flow and I can envision it		
R2.1	ImpDesAlign	P: but then I was getting into the weakness part sometimes is actually applying it. I know enough about learning theory to be dangerous. I can see it and I can see the importance of it when it comes to applying it and putting it in the structured and strategic design. I sort of lack experience in that area to be strong in that area. Does that make sense?		
Q2.1.1		I: Yes. There is no getting around it experience in applying these things in various kinds of circumstances and situations really do make a difference, I think. What about your understanding of the design strategies? Do you feel yourself knowledgeable of those things needing some work what are your thoughts?		
R2.1.1	ImpDesStrategy	P: I've been needing some work. Basically the fact that there are so many different strategies that I don't fully understand. Different approaches to design strategies based on what is being trained and there are just so many of them you know I feel like I've kind of scratch the surface but there's a lot more to learn.		
Q2.1.2		I: Can you give me an example when you say a design strategy of what that might be?		
R2.1.2		P: Well, the only thing that's coming to mine mind is a comparison between the little bit that I know about the design strategy for the WLMS versus the strategy for the COM training and .com customer service and the different elements and learning experiences that and live in those two different strategies. So, from entirely classroom versus on-the-job training. That really gets more at the learning experiences rather than the strategy		

Structural Code	Code	Transcript	
Q2.2		I: That's okay. I get it. So let's go down to development what are your strengths?	
R2.2	StrDevApplyDesign	P: Strengths in term of development are being able to interpret and understand the intention of the design effectively.	
R2.2	StrDevMaterial	P: My other strengths I think are being able to present that information based on an understanding that intention in a clear way that's both an instructor can understand and deliver effectively and a learner can understand and apply effectively.	
R2.2	ImpDevFocus	P: And weakness in the area of development are being too tied up in the details at times it slows progress that could be a perceived strength in some cases to that often times I find it to be more of a weakness.	
Q2.3		I: So, let me see, what's left, staffing. What are your administrative strengths?	
R2.3	StrAdmFocus	P: Strengths in terms of the scheduling piece I think the level of detailed consciousness for me is a strength in that area it gives you a lot to juggle and I feel so far I've done a fairly good job of noticing things that you know you noticed.	
R2.3	ImpAdmComm	P: Weakness there are many based on lack of experience dealing with him the leadership team so weakness would be understanding how to communicate to them effectively regarding requests for training and sometimes that training is an even the answer you know to be able to influence them in you know those situations.	

Appendix G: Codes, Categories, Themes

Codes	Categories	Themes
AdmClsPrep	Administration	Functional Diversity
AdmComm	Administration	Functional Diversity
AdmSchedule	Administration	Functional Diversity
AdmTracking	Administration	Functional Diversity
DelClassMgmt	Delivery	Functional Diversity
DelFacilitateLearng	Delivery	Functional Diversity
DelPresentation	Delivery	Functional Diversity
DesLearningExperiences	Design	Functional Diversity
DesNeedsAnalysis	Design	Functional Diversity
DesStructural	Design	Functional Diversity
DevAssessment	Development	Functional Diversity
DevELearning	Development	Functional Diversity
DevFacilitatorAssets	Development	Functional Diversity
DevLearningAssets	Development	Functional Diversity
LevAdmNov	Competency Level	Self-Assessment
LevDelExpert	Competency Level	Self-Assessment
LevDesComp	Competency Level	Self-Assessment
LevDesNov	Competency Level	Self-Assessment
LevDevComp	Competency Level	Self-Assessment
RatAssessment	Competency Rationale	Self-Assessment
RatComfort	Competency Rationale	Self-Assessment
RatExerience	Competency Rationale	Self-Assessment
RatFeedback	Competency Rationale	Self-Assessment
ImpAdmCommunication	Improvements Opportunity	Self-Assessment
ImpDelClsMgmt	Improvements Opportunity	Self-Assessment
ImpDelFacLearning	Improvements Opportunity	Self-Assessment
ImpDelTechnology	Improvements Opportunity	Self-Assessment
ImpDesAlign	Improvements Opportunity	Self-Assessment
ImpDesPlan	Improvements Opportunity	Self-Assessment
ImpDesStrategy	Improvements Opportunity	Self-Assessment
ImpDevFocus	Improvements Opportunity	Self-Assessment
ImpDevMaterials	Improvements Opportunity	Self-Assessment
ImpDevTechnology	Improvements Opportunity	Self-Assessment
StrAdmFocus	Strength	Self-Assessment
StrDelFacilitateLearning	Strength	Self-Assessment
StrDelRelationship	Strength	Self-Assessment
StrDesNAna	Strength	Self-Assessment
StrDevApplyDesign	Strength	Self-Assessment
Codes	Categories	Themes
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StrDevAssessment	Strength	Self-Assessment
StrDevMaterial	Strength	Self-Assessment
StrDevSME	Strength	Self-Assessment
FutRoleManager	Future Role	Purpose
FutRoleMentor	Future Role	Purpose
FutRoleDelivery	Future Role	Purpose
FutRoleDevelopment	Future Role	Purpose
FutRoleDesign	Future Role	Purpose
DevG_DesVirtual	Development Goal	Purpose
DevG_DevNewHire	Development Goal	Purpose
DevG_DevVirtual	Development Goal	Purpose
DevG-DevELrn	Development Goal	Purpose
DevG-MentorExp	Development Goal	Purpose
DevG-TrngDel	Development Goal	Purpose
DevG-TrngDes	Development Goal	Purpose
DevG-TrngDev	Development Goal	Purpose
DevGTrngMgmt	Development Goal	Purpose
SigAdmComm	Significant Learning	Purpose
SigDelAlignment	Significant Learning	Purpose
SigDelGap	Significant Learning	Purpose
SigDelMethods	Significant Learning	Purpose
SigDelPresentation	Significant Learning	Purpose
SigDesProcess	Significant Learning	Purpose
SigDesStrategy	Significant Learning	Purpose
SigDevAlignment	Significant Learning	Purpose
SigDevProcess	Significant Learning	Purpose
SigDevSME	Significant Learning	Purpose
SigDevTechnology	Significant Learning	Purpose
SigDevVirtual	Significant Learning	Purpose
SigRatPerformance	Siginifcant Learning Rationale	Purpose
SigRatDevelopment	Siginifcant Learning Rationale	Purpose
SigRatTime	Siginifcant Learning Rationale	Purpose
ExampleDevCourse	Significant Learning Example	Purpose
ExampleDevELrng	Significant Learning Example	Purpose
ExampleDevVirtual	Significant Learning Example	Purpose
ImpactDevCollaborate	Significant Learning Impact	Purpose
ImpactPerConfidence	Significant Learning Impact	Purpose
ImpactPerfCollaborate	Significant Learning Impact	Purpose
ImpactPerfDelivery	Significant Learning Impact	Purpose
ImpactPerfDesign	Significant Learning Impact	Purpose
ImpactPerfDevelopment	Significant Learning Impact	Purpose

Codes	Categories	Themes
ImpactPerfProject	Significant Learning Impact	Purpose
MethAssessment	Methods 70-20-10	Methods
MethCoaching	Methods 70-20-11	Methods
MethCollaboration	Methods 70-20-12	Methods
MethObservation	Methods 70-20-13	Methods
MethProject	Methods 70-20-14	Methods
MethResearch/Reading	Methods 70-20-15	Methods
MethTrialError	Methods 70-20-16	Methods
SigLrnMethCoaching	Methods Significant Learning	Methods
SigLrnMethCollaboration	Methods Significant Learning	Methods
SigLrnMethFormal	Methods Significant Learning	Methods
SigLrnMethObservation	Methods Significant Learning	Methods
SigLrnMethProject	Methods Significant Learning	Methods
SigLrnMethReading	Methods Significant Learning	Methods
SignLrnMethTeamMeeting	Methods Significant Learning	Methods
ImpactDevMCoaching	Methods Development Impact	Methods
ImpctDevMProject	Methods Development Impact	Methods
ImpactDevMProj-Coach	Methods Development Impact	Methods
ImpactPerfMCoach	Methods Performance Impact	Methods
ImpactPerfMCollaborate	Methods Performance Impact	Methods
ImpactPerfMProject	Methods Performance Impact	Methods
	Methods Professional	
PDevMethProject	Development	Methods
	Methods Professional	
PDevMethAccountability	Development	Methods
	Methods Professional	
PDevMethCoaching	Development	Methods
	Methods Professional	
PDevMethCollaboration	Development	Methods
	Methods Professional	
PDevMethFormal	Development	Methods
PDayMathReflection	Methods Professional	
PDevivientkellection	Development	Methods
PDay Math Toom Mastings	Methods Professional	
	Development	Methods
EffProfDevAssess	Methods Effective	Methods
EffProfDevCoaching	Methods Effective	Methods
EffProfDevCollaboration	Methods Effective	Methods
EffProfDevFormal	Methods Effective	Methods
EffProfDevObservation	Methods Effective	Methods
EffProfDevProject	Methods Effective	Methods
ImprovCollaboration	Improvements Methods	Improvements

Codes	Categories	Themes
ImprovFormalTraining	Improvements Methods	Improvements
ImprovProjectTime	Improvements Methods	Improvements
ImprovCoaching/Mentoring	Improvements Methods	Improvements
ImproUse of assessment data	Improvements Methods	Improvements
ImprovCheckinMeeting	Improvements Methods	Improvements
ImprovInstrGuide	Improvements Methods	Improvements
ImprovObservation	Improvements Methods	Improvements
ImprovProjectGoals	Improvements Methods	Improvements
LimAssess	Limitations	Improvements
LimCoachAbility	Limitations	Improvements
LimCoaching	Limitations	Improvements
LimDefProcess	Limitations	Improvements
LimDirection	Limitations	Improvements
LimFormal	Limitations	Improvements
LimProjectWork	Limitations	Improvements
LimTime	Limitations	Improvements