THE AGONY AND ECSTASY OF WORKPLACE CREATIVITY:
A QUALITATIVE STUDY OF HOW FACILITATORS VIEW AFFECT IN HELPING
ADULTS LEARN CREATIVITY

A Dissertation in
Adult Education

by
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ABSTRACT

The business world is constantly striving for new, better, more efficient products and services. As such, the call for innovation rings out loud and clear throughout every industry and every workplace environment. As a foundation for innovation, creativity is typically positioned as a valued attribute, skill or behavior for adults in the workplace; and a variety of organizational decisions and efforts are made to acquire, support and sustain such capability. Creativity as a concept is complex, and as such, difficult to pinpoint. It is believed to be a combination of interacting phenomenon, including cognitive, affective, and meaning making processes. While much about creativity has been studied from a cognitive perspective, what is known about the role of affect is still clouded.

From a practical perspective, organizations are still searching for ways to effectively foster creativity in the workplace. One of those ways that has found some success is viewing creativity as a learning process, and investing in facilitators who can help employees learn and practice creativity. While many of these learning interactions are driven by cognitive processes, affect does exist as well. To what extent emotion influences this learning process, and how facilitators may or may not use it, is not fully understood.

This study views creativity at work through an affective lens; and uses a qualitative methodology to better understand how emotion influences facilitation of the learning of creative process. It is hoped that the detailed richness of the information collected and analyzed will better inform assumptions about how affect influences creativity, learning, and the learning of creativity.
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ACKNOWLEDGEMENTS

The production of a quality dissertation is typically a self-directed process of exploring and writing about a specific subject in a scholarly way. The dissertation also demonstrates the love for wisdom and the passion for knowledge in the course of earning mastery a specific field of study. It is an intentionally difficult process that meets rigorous academic study, research, and communication standards, but also represents personal standards for excellence. Although the dissertation is a final step in earning the degree; it is in reality, the starting point for learning about the world in a new way.

By definition, this process is a research study undertaken by an individual – an original piece of work. In practice, however, the effort in earning a doctorate is never accomplished alone. Each of us are an interconnected mass of unique experiences collected through interactions of what and with whom we interact; and those interactions help muster the ideas, passion and perseverance needed to succeed. As such, while I thank everyone in my life who has helped shape who I am, I want to highlight some of those who have provided the most support during the last 6 years spent in the pursuit of this degree.

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Chapter 1

Introduction

Innovation is a critical concern in most organizations, and creativity has become an important component for enhancing competitiveness in the marketplace (Cropanzano, Weiss, Hale, & Reb, 2003; Mumford, Hunter, Eubanks, Bedell & Murphy, 2007). Creativity and innovation have been synonymous terms positioned as an important lever to fuel growth, vital to address business problems, and critical to organizational success (Basadour & Hausdorf, 1996; Jalan & Kleiner, 1995; Wang & Netemeyer, 2004; Williams, 2002); and furthermore, leveraging the creativity of a firm’s employees is considered vital for survival and prosperity (Mumford et al., 2007; Shearring, 1992).

For the most part creativity is viewed as a desired, positive activity that is critical for surviving the increasing rate of change in the business world (Kurtzberg, 2005; Sternberg, 2007). Key to achieving business innovation is the harnessing and development of the creativity of the individuals who work in that organization (Fenwick, 2003). A number of approaches have been used to encourage creativity in the workplace, including: providing extrinsic rewards, hiring contextual expertise, training and development in various creative processes, and organizing groups for a creative climate and culture (Scott, Leritz & Mumford, 2004). How to help people in the workplace learn and use creativity is a question that many adult educators (e.g., trainers, managers, leaders) situated in business and industry are tasked with answering.

To provide an answer, organizations need to clarify a definition of creativity in the workplace in order to have a shared understanding of how to recognize it when it occurs. The term creativity originates from the Greek root word for krainein (to fulfill) and from the Latin
root word creare (to make), and can be used to describe potential, behavior, and outcomes (Derksen, 1998; DiLiello, 2006). The concept of creativity is often mistakenly assumed to be commonly understood and defined (Kurtzberg, 2005), and displays of creative thinking can often be misjudged (Runco, 2006). There are aspects of creativity that can be defined as products (ideas, outcomes, solutions), which can be judged as original, novel and useful (Madjar, 2005). There are other aspects of creativity that are viewed as cognitive processes that involve recognizing problems, and making new connections between those problems and possible solutions (Shearring, 1992). Consequently, creativity can be defined in many different contexts: a mystical and somewhat magical event, a fairly static characteristic of a person, a way of making meaning of self and the world, and/or a product of structured or serendipitous interactions between groups of individuals (Hirt, Devers & McCrea, 2008; Kerka, 1999).

As all innovation begins with creative ideas (Schepers & Van den Berg, 2007), employee creativity in the workplace is generally considered the production of ideas, products, or procedures that are novel, original or different from the ordinary; and are also potentially useful or valuable to the organization (Averill, Chon & Hahn, 2001; Baer, Oldham & Cummings, 2003; George & Zhou, 2002; James, Broderson & Eisenberg, 2004). These creative thoughts, ideas, feelings, products and procedures become innovation when applied to specific, ill-defined workplace challenges in a structured way to produce results that meet market needs (Berkshire, 1995; Christensen, 2006; Cooper, 2005; Madjar, Oldham & Pratt, 2002; Rank, Pace & Frese, 2004; Scott, Leritz & Mumford, 2004). The separation of these concepts is important to acknowledge for the academic implications of this study; however, in practice, the workplace can be less distinctive in applied definitions. Organizations tend to focus on the implemented ends or results (innovation), and may try many different ways (means) to accomplish them. This
study focuses on creativity in the workplace as a means to innovation, and positions creativity as a process of learning influenced by both cognitive and affective activities.

One of the areas involving creativity in the workplace that can be better understood is the facilitation of learning creative process through affect in the workplace. In order to specify a worthwhile effort to explore in this area, a better understanding of the relationship between creativity, affect and facilitating learning needs to be addressed. The rest of this chapter is organized to help explain the emergence of such a study by first highlighting the relationships between creativity, affect and learning, in order to better clarify the need for such a study. Then a clear statement of the problem and key research questions to be addressed by this study will be discussed, followed by a more detailed exploration of the relationships between the key concepts that frame the study, how those concepts manifest into an appropriate design methodology, and finally a brief explanation of the expected significance of the findings. This chapter concludes with a summary of key assumptions, limitations and definitions that shape the study.

**Creativity and Affect**

Creative activities are seen by some as affectively charged experiences that shape, and are shaped by, emotion (Amabile, Barsdale, Mueller, & Staw 2005), and our knowledge of creativity in the workplace may be hampered by the failure to consider the impact of emotion on organizational behavior (Pirola-Merlo, Hartel, Mann & Hirst, 2002). Affect can enable creativity (e.g., joy, flow and/or dissatisfaction, frustration) and disable creativity (e.g., stress, anger, fear, tension, satisfaction) (Christensen, 2006; Kurtzberg, 2005). Viewing creativity at work through an affective lens may challenge previous assumptions held about creativity; and possibly open new avenues for understanding, fostering and learning creative process (Barsade & Gibson, 2007). While understanding the cognitive aspects of creativity have been historically
researched, the role of affect has been largely ignored (Pope, 2005). From a learning in the workplace perspective, reason and rationality have traditionally dominated theory and practice; and emotions have been positioned as disruptive to learning and a factor to be isolated and controlled (Bierma, 2008; Dirkx, 2001). Relying solely on rational reasoning without affect can dilute the inherent meaning that the emotion is communicating (Dirkx, 2001; Maclaren, 2004), and may lead to disastrously poor decisions and judgments (Forgas & George, 2003). To date, organizational models of creativity in business struggle to hold consistently true when dealing with non rational concepts, yet affect is not rational and access to affect in self and others is critical to creativity (Barsade & Gibson, 2007; Butcher & Niec, 2005; Levin, 1997). Evidence has been found to indicate that children who can consciously engage with affect in a variety of ways are considered better creative problem solvers (Butcher & Niec, 2005). This leads to the question as to whether adults behave the same way, and if so, what can be done to help those who have either lost or not developed their affective engagement towards more creative behaviors.

Developing the capacity to explore and understand one’s emotions more fully can increase one’s ability to learn, construct meaning, and act and communicate with others in the workplace (Levin, 1997). In this sense, affect influences both what people think (the intake of information) and how people think (the process of making constructs) (Forgas & George, 2003). Providing equal emphasis on the affective domain of learning (learning how to recognize, integrate and shape interest, attitudes, and values) improves areas critical to creativity, such as increased self-reliance, ability to cooperate and/or lead, and self-confidence that is needed to combat rejection and perceived failure (Hunt, 1987; Main, 1992; Meredith, Fortner & Mullins, 1997; Shephard, 2007). Simply building domain-specific expertise through accumulation of
facts results in less cognitive flexibility (Thompson & Mintzes, 2002); and therefore, is not adequate for creativity. Expertise-building that facilitates creativity must be a more principle-based organization of knowledge (Mumford, 2000), which includes emotional cues for changing perspective and how to react to failure. Exploring how affect influences creative process is important to both theory and practice. From a theoretical perspective, how and when affect enhances or hinders the creative process may highlight connections to how adults learn, particularly in the context of learning how to use their creative abilities. In regards to workplace application, organizations that better understand how to recognize and interpret affect in the creative process might make more effective decisions regarding how to invest and support creativity (e.g., articulate challenges to engage employees, organize teams to take action, recognize and reward progress, etc.) in the workplace.

**Facilitating Learning of Creativity with Affect**

Teaching in the workplace involves work activities that give assistance and guidance to others (Nicholson & Arnold, 1991). As a way of teaching, facilitation involves systematic inquiry and dynamic decisions to determine effective learning activities that foster and guide the meaning making of the learner (Kambutu, 2004). Expert facilitators are leaders in the organization who can recognize and stimulate creative ability (knowledge, skills and talent) in the workplace, and help people work together to foster meaningful growth and change in the organization (Derksen, 1998; Kerfoot, 1998). Facilitation is considered successful if learning mixes seamlessly with content knowledge; and the learners can actively contribute to (and choose the activities within) their own learning process, as well as link new knowledge with previous experience in a meaningful way (Boud & Knights, 1994; McCaughtry, 2004). The best facilitation happens when the facilitator can relate with the students, establish opportunities for
learners to emotionally engage with the subject matter, and effectively engage with the social dynamics of the learning process (McCaughtry, 2004). Facilitators are guides in shaping the learning milieu (learning climate or environment and activities) helping students consciously acknowledge and associate feelings and emotion with ideas and knowledge gained both during the event and during the reflection process in order to enhance the overall learning and sense-making (Boud, Keogh & Walker, 1985b).

While many adult learning educators have engaged in research concerning how the learner engages emotion in the learning process (Garrick, 1999); there currently exists a gap in knowledge about how facilitators make decisions on how to support the learning of creativity (McNess, Broadfoot, & Osborn, 2003), the influence of affect on creativity in the workplace, and how emotion (and the awareness of emotion) can influence creative productivity (George, 2000; Kurtzberg, 2005). The integration of these gaps serve as the premise for this study, which is specifically focused on how facilitators use affect to help employees in the workplace learn creativity. This perspective draws on a variety of complex interactions between affect, the creative process, and the facilitation of experiential learning. Studying these interactions may better inform a more complete conceptual model of creative process; which can drive learning event design and pedagogical technique decisions that enhance facilitator effectiveness in helping adult workers develop individual and shared creative abilities.

**Problem Statement**

The cognitive domain has traditionally driven production of knowledge in the workplace, with feelings being ignored or seen as something that gets in the way of rational decision making; and a gap in understanding the influence of affective knowledge in business has emerged (George, 2000; Levin, 1997). Research has shown that affective influence on creativity is often
stronger and more far-reaching than initially considered (Wood & Moreau, 2006), and this has spawned a resurgence in the study of creativity and affect (Beal, Weiss, Barros & MacDermid, 2005; Mumford, 2003).

Most of the traditional research targeting how creativity is fostered in the workplace has been driven by cognitive, organizational and social psychology, with very little interest in the role that affect may play in better understanding and fostering creativity at work (Alsop & Watts, 2000; Forgas & George, 2003). With the study of creativity struggling to understand seemingly contradictory findings about the (positive and negative) influence of affect and the creative process (Zhou & Shalley, 2008), recent literature has specifically called for additional research in creativity and affect in practice (Kurtzberg, 2005), and for more integrative and connecting models of research of how affect influences creativity (Henderson, 2004; James, Broderson & Eisenberg, 2004; Levesque, 1996).

One way to explore the connection between affect and creative process is to examine how facilitators help adults in the workplace develop their own practice of teaching the creative process. Facilitators interpret student emotion, and use that knowledge to select, order, and dynamically maneuver learning interactions and activities through the experiential learning process (McCaughtry, 2004). For example, how facilitators understand the emotional aspects of teaching and learning has received limited attention (Zembylas, 2007).

**Purpose of the Study**

The purpose of this study is to explore the role of affect in facilitating the learning of creative process in the workplace; and more specifically, how facilitators use affect to help
employees learn and use creative process in a meaningful way. Key research questions guiding this study are:

- How do facilitators describe how they foster creativity?
- How do facilitators view the role of affect in the teaching/learning of creative process?
- How might these views on affect and fostering creativity influence their preparation and facilitative approach to fostering creativity?

**Conceptual Framework**

The conceptual framework for this study is grounded in experiential learning through an affective lens. The reasons for this selection will be outlined first by describing the characteristics of experiential learning; then by exploring how the experiential learning of the creative process in the workplace is facilitated.

**Experiential Learning**

Human knowledge is actively constructed from experience and is the result of reflection involving the total mind (Finley, 2005). Experience is a total response of a person to a situation or event, including what he/she thinks, feels, does and interprets as meaningful (Boud, Keogh & Walker, 1985b). Experiential learning is a process which draws on the context, behavior, knowledge and resources of prior experiences in order to make decisions about what is meaningful learning (Miller & Boud, 1996). To implement an experiential learning approach includes three basic steps: preparation, engagement in an activity, and a process of reflecting on what has been experienced in that activity (Boud, Keogh & Walker, 1985a). In the preparation step, learners are provided expectations about the learning activity, including what is required of them and the resources that are available to help plan for this experience. Affect typically shows
up in learning preparation as anxiety; whereas affect in the learning activity itself can emerge as
overwhelm and confusion (Boud, Keogh & Walker, 1985a). During the activity step, learners
are engaged in some kind of real or simulated event or series of events, during which each
learner observes new information, perspectives and feelings, and draws on his/her prior
experience in order to make sense and take action (Boud, Keogh & Walker, 1985b). Reflection
happens after completion of the activity, which is when learners intentionally revisit the
memories of the experience, work through the meaning made (including the attitudes and
emotions that may influence that meaning), and make sense of the new ideas and information
that may emerge (Boud, Keogh & Walker, 1985a). Learners who do not consciously engage the
affective dimension of their memories and meaning undermine the value of the reflection process
and the choice of how to interpret meaning it provides (Boud, Keogh & Walker, 1985b).

Experiential learning theory places daily experiences as a central mechanism from which
learning occurs; and creative process uses personal experience as a platform for challenging
conventional perspectives. Similar to creative process, experiential learning involves individuals
using prior knowledge and experience to interpret personal experiences in their own way, and
shape meaning to construct new knowledge (Bannan, 2004; Holmes, 1990). Experiential
learning requires direct and active participation of the learner with the environment, as well as
reflective observations of the consequences arising from those interactions, which over time
establishes a set of personalized mental models that define how the world works (Gray, 2007;
White, 2005).

This author takes a constructivist view of experiential learning, which includes a more
holistic view of connecting each learner’s existing knowledge, beliefs, affective characteristics
and experiences to a new set of knowledge, beliefs, skills and attitudes that leads to making sense
or new meaning of the experience (Cafarella & Merriam, 2000; Holmes, 1990; Lee & Caffarella, 1994). As opposed to a situated view, a constructivist view of experiential learning believes that learning can transfer from one situation to another, as well as acknowledges the learning that happens during the experience itself (Fenwick, 2000). Boud, Keogh and Walker offer a 3-stage model of constructivist experiential learning that emphasizes both cognition and affect as a part of the experience, with a key focus on attending to negative feelings about an experience (Boud, Keogh & Walker, 1985a; Cafarella & Merriam, 2000; Miller, 2000). The three key stages in this active process of reflective exploration are returning to experience (re-engaging and recalling salient events in detail), attending to/connecting with feelings (using helpful feeling and removing obstructive ones to make sense of the experience), and evaluating the experience (re-examining the experience and using that interpretation to integrate/develop one’s own conceptual framework) (Boud, Keogh & Walker, 1985b). Key assumptions of this model are that learning is always rooted in prior experience; all new experiential learning builds on perceptions and frameworks that currently exist, and some negotiation between previous and new knowledge must be negotiated in order for meaningful learning to occur (Boud, 1994).

The concepts involved in experiential learning are typically associated with the practical learning and application of creative process in the workplace. Positioned as a business challenge or opportunity, adult learners are engaged to help best define the challenge or opportunity (preparation). Then they are asked to engage in divergent thinking processes through a variety of stimulating (individual and group) activities and techniques, followed by a different set of activities and techniques that focus on convergent thinking (activity). The final step involves drawing on prior experience and what was learned during the activities in making evaluations about the range of possible solutions, including the best recommended solution by the group
Facilitating Experiential Learning of Creative Process in the Workplace

In experiential learning, the individual student (i.e., adult employee in the workplace context) is primarily responsible for influencing the direction of the learning process and actively engaging in it; yet educational experiences are more likely to happen in situations where there are teacher-guided interactions between the person and the environment (Elias & Merriam, 2005). In these events, the teacher helps to facilitate the learning process of each learner by clarifying the purpose and goals, assembling appropriate resources, balancing both intellectual and emotional components of learning, and engaging in guided conversations that inform, but not dominate, the actions to be taken (Kearsley, 2006). In the context of creativity, these teachers also bring their own experience to guiding the learning activities, and have the difficult task of enabling employees to share their own experiences, and engage with/reflect on the experiences of others in order to accept alternative ways of understanding (Boud, 1994; Boud & Knights, 1994). In a study by Ellinger and Cseh (2007), it was suggested that the facilitator may play a greater role in the process of experiential learning through the various behaviors and techniques chosen than previously thought.

An experiential approach has several implications for teaching creativity as a process in the workplace. Experiential learning is based on each individual actively and continuously drawing on his/her own experience and perspectives in order to make sense of new experiences and alternative perspectives (Garrick, 1999). The role of the facilitator is to select appropriate events that represent the steps of the problem-solving process, facilitate the actual tools, techniques and activities associated with the step, and to help individuals both draw on multiple
experiences within the event and reflect on what was learned after the event. The facilitator is positioned as an expert in the process and the tools, and the individual is central to actively driving the learning activities in applying the process and tools. One of the primary tasks of the facilitator is to establish and continually sustain a physical, mental and emotional space to express and explore new perspectives and individual reflection (Boud & Miller, 1996). This learning space is particularly necessary for creativity, as a central purpose for creative process is to challenge status quo work thought and activity.

Learning is embedded in most work activity, and work itself is typically built around sets of routines (Barnett, 1999). Those employees who prefer creative work relish the excitement involved in challenging the status quo and heading down the unfamiliar and risky path; while most others feel more comfortable sticking with the routine and familiar (Cooper, 2005; Zhou & George, 2003). Fear of failure and focus on routine are some of the reasons that many adult learners in the workplace may have established a self-described lack of creative ability (Holmes, 1990). The workplace has low tolerance for failure, which can lead to a pattern of avoiding two key components vital to creative process: risk and change. A facilitator can improve the learning of creative process by establishing a positive climate for learning and failure by clarifying and establishing a clear purpose of the learning event (e.g., creativity is a learning process), and using questions about the process of learning to help individuals draw on past experiences, interpret new ones, and make new meaning. In addition, by observing respected expert facilitators who challenge existing thinking patterns with seemingly ridiculous ideas without being humiliated, may help influence one’s own creative self-efficacy and willingness to explore one’s own creative abilities (Durant, 2002; Shalley, Zhou & Oldham, 2002).
Affect is critical to advancing the understanding of creativity (Zhou & Shalley, 2008). The workplace is full of affect and its influences, and the creative process is no different (Amabile et al., 2005). People are emotional beings and all human experience has an affective component, whether or not it is suppressed or over-rationalized (Crosetto, 2004; Maclaren, 2004). Creativity is a human capacity embedded in affect (Styhre, 2008), as emotions can enable or prevent creative efforts, and creative work can have profound emotional consequences (Averill, Chon & Hahn, 2001). In practice, creativity as process is filled with emotion, such as the excitement of discovery, anxiety with challenging the status quo, drudgery of hard work, frustration with obstacles, and anguish of failure (Pirola-Merlo et al., 2002; Zhou & George, 2003). The existence, absence, and conscious engagement of these emotions also have a powerful influence on the significance of both what knowledge is gained and how meaning is shaped (Boud & Miller, 1996; Garrick, 1999). Activities associated with creative process typically involve affect in some way, and facilitators need to be constantly alert to the ways in which emotion is expressed, observed, described or shared by the students and themselves in order to enhance the learning process (Boud, Keogh & Walker, 1985b).

To support an experiential learning process, facilitators must help individuals actively recognize and engage with emotions during learning experiences (Dirkx, 2001), and build both capability and self-confidence in making meaning of the affect in combination with other ways of knowing. In the context of creative process, the facilitator must help the learners engage with these feelings and thoughts both within and after the creative events, helping the learner to better identify observations of creativity, and use those observations to inform both creative activity and self-esteem in taking creative actions.
Overview of Design and Methodology

To explore and better understand the phenomenon of facilitating creative process with affect in the workplace, a qualitative, interpretive design was used. The complexity and nuances involved in each individual piece of the conceptual framework, as well as the interaction between all pieces, makes it difficult to describe and understand the phenomenon in any meaningful way by solely using quantitative methods (Hoepfl, 1997). Consistent with an interpretive view, this is a social phenomenon that involves dynamic interaction and interpretation, where individuals introduce, share, and further refine their own perspectives, and no universal truth was expected (Myers, 2009; Patton, 2002).

This study captured the variety of ways that facilitators recognize and use affect to help others learn and apply the creative process by interviewing these facilitators and observing the interactions as they occur in the real world, with a focus on detail and subjective text generated by the facilitators themselves. To support this design, a purposeful sample of facilitators was selected (Hathaway, 1995; Myers, 2009). Criteria for selecting participants was based on the purpose of the study, with the key factor being individuals who provide the most descriptive details and insight into the phenomenon (Myers, 2009). Key criteria for this study involved personal beliefs in using experiential learning principles of design and facilitation, personal beliefs that affect does influence both learning and the practice of creative process, and significant experience in facilitation, specifically facilitating creative process (2 years). Additional criteria were also applied and those are detailed further in Chapter 3.

To find appropriate participants, this study used a combination of criterion-based and snowball sampling approaches. Selection criteria was circulated via email invitation to the extended network available to the researcher. In addition, it was requested of the members of
this network (as well as anyone who is accepted into the study) to forward this invitation to any extended network of colleagues they have or may recommend. Final acceptance into the study was primarily determined by the number of applicants who met the criteria; availability and willingness to participate in the data collection, and the feasibility of the researcher to engage the participants in the data collection methods. As total sample size for any qualitative research design is subjective, based on peer-review and logical arguments for appropriateness (Patton, 2002), it was estimated that 8-12 participants were needed for this study.

Once the participants were selected, triangulated data collection methods and tools were used. These tools followed a qualitative, interpretive approach to ensure trustworthiness and credibility (Myers, 2009; Patton, 2002), as well as alignment with the experiential learning process itself (Boud, Keogh & Walker, 1985a). First, a 45-60 minute structured interview of each facilitator captured current experience, beliefs and perspectives of meaning about creative process, affect and experiential learning process facilitation. Second, a two-hour observation of the facilitator in practice of facilitating the learning of creative process was captured by the researcher using a semi-structured observation form. Finally, a 60-90 minute semi-structured interview of the facilitator revisited the data from the first interview as well as the observation, and explored any additional detail and meaning that emerged. As noted, each of these data collection techniques used structured or semi-structured open-ended questions to allow for consistency in data collection around the key concepts, flexibility of the researcher to explore nuances in more detail, and to facilitate data analysis efficiently and effectively (Myers, 2009; Patton, 2002; Wiersma, 2008). The final participant count included 13 different participants who completed first round interviews; of which 8 participants were observed and then completed second round interviews. Data was analyzed across each data collection method (i.e., all first
interviews, all observations, all second interviews), well as across all data collection methods for patterns and themes of both common and extreme examples of interpretation and practice.

**The Significance of this Study**

If creativity is as critical to business success as reported by current research (e.g., Basadour & Hausdorf, 1996; Cropanzano et al., 2003; Jalan & Kleiner, 1995; Mumford et al., 2007; Shearring, 1992; Wang & Netemeyer, 2004; Williams, 2002), then it is imperative to uncover a better understanding how creativity is best fostered. One of the ways to foster creativity is through a learning process, and this study is intended to address a variety of academic and practice-based gaps. The academic gaps are grounded in experiential learning theory and in organizational creativity research. The practice-based gaps are based in program design and facilitation.

Research regarding the constructivist experiential learning process has typically revolved around the learner and the internal processes used to construct meaning of the world through reflection. Models of experiential learning that have included the influence of affect have also emerged (e.g., Boud, Keogh & Walker, 1985). A few studies have explored the influence of teacher affect on selection of pedagogy (McCaughtry, 2004); however, very little has been explored regarding how the facilitator uses affect to support the learning process in the workplace. Further, no known studies have been found that specifically examine the role of affect in facilitating the learning of the creative process within the workplace. Additional knowledge about how the facilitator uses affect to help others learn the creative process may shed new light on the experiential learning process itself; particularly the integration of affect in the reflection process. Meaning making is a holistic process; not restricted to rational and cognitive thoughts alone. By exploring the role that affect plays in contributing to meaning
making, facilitators may be more able to recognize the presence of affect in preparing for, and operating within, experiential learning events.

Research in the field of creativity has also shown that affect is embedded within creative process, and has some influence on creative thinking (Amabile et al., 2005; Russ, 1999; Mumford & Hunter, 2005). Most research conducted on creative process in the workplace focuses on manipulating variables and measuring their impact (in some combination) on cognitive outcomes or outputs. Measures of creative process that are most commonly used include: Fluency (the ability to generate a large number of potential responses), Flexibility (the ability to shift approaches and utilize a variety of strategies), and Originality (generating ideas and solutions that have contextual uniqueness or uncommonness) (Baas, De Dreu & Nijstad, 2008; Fontenot, 1993; Kurtzberg, 2005; Scott, Leyritz & Mumford, 2004). Yet, these are quantitative and positivistic approaches to understanding creativity. Qualitative studies, such as the one proposed in this discussion, are intended to expand the concept of creativity, in order to allow a deeper insight into how creative process happens. Most qualitative studies concerning creativity in the workplace focus on the learners themselves; and tend to ignore the influential role that facilitators of the creative process have on the sustainability of the learning involved. By better understanding the influence of affect, more integrative models of creativity may emerge (Woodman, Sawyer & Griffin, 1993). A more integrative model of understanding the creative process through affect will enable facilitators to specifically target key affective concepts, and help learners consciously use and reflect on those concepts in order more effectively apply creative process in the workplace.

Engaging facilitators, who are paid by organizations to be successful at fostering creativity and have a track record of being successful, in this study is intended to help better
understand the selection and use of proven pedagogy and learning techniques grounded (at least partly) in affect. Exploring the affective dimensions of facilitator decisions is critical for uncovering potential best practices for skill acquisition (McCaughtry, 2004) in developing employee creativity. Through better understanding how emotion is interpreted, translated and used to make learning decisions about how to foster employee creativity by purposefully interviewing and observing those who are paid by organizations to be successful at it, it is hoped that others may use this knowledge to better inform curriculum and pedagogy alternatives in the future. Therefore, the focus on emotions will be best positioned to be studied for what they do rather than trying to identify and label the actual emotions at hand (Pope, 2005). It is also hoped that the results of this study help those responsible for fostering creativity in organizations make better decisions in how to engage individuals in learning the creative process.

The results of this study can be used by both the business community of practice and researchers in a variety of fields. By better understanding how facilitators use affect to help employees learn and use creative process, organizations may be better equipped to better define their organizational learning needs, and use that knowledge to select the appropriate training programs, designs, and facilitators to address those needs. In addition, consultants and firms that offer such solutions can use this knowledge to expand their services, and enhance the sustainable impact of the services that are provided. The knowledge from this study may offer a partial explanation of why some learning programs (and facilitators) are more sustainable than others. Finally, those who are in positions to teach or foster creativity (e.g., trainers, professors, leaders) may use the results of this study to better develop their own facilitation abilities.

Results may also be used by researchers in the areas of adult learning and organizational creativity. Facilitators play a key role in enabling the learning process of adults, and this study
can help improve understanding of how facilitators develop their ability to support the experiential learning process, specifically through an affective lens. The findings may strengthen and/or challenge the posits of the Boud, Keogh & Walker (1985a) model of experiential learning, particularly regarding the role of the affective domain and how facilitators prepare for and establish the learning milieu for creative process. It is hoped that by using a qualitative approach to studying this topic, a more expanded view of a creative learning process will help to answer the call for integrative research (Woodman, Sawyer & Griffin, 1993; Amabile et al., 2005; Mumford et al., 2007). This expanded view should help align the concepts of creative process and constructed experiential learning in the workplace, which should also lead to more focused research questions driven by alternative theoretical perspectives.

Finally, this study will contribute to the broader field of adult education, specifically by helping to connect the role of affect to learning and practice by adult educators. Affect is a construct that has been historically marginalized in relationship to learning. This study could give not only greater attention to the relationships between affect and learning of creative process, but also the relationship between affect to teaching in general beyond the idea of just fostering creativity. Understanding these relationships may challenge existing assumptions of not only how creativity is fostered, but may shift the balance in how affect is observed, integrated and valued as a component of knowledge in the learning process. The implications of any shift could establish a fundamentally new perspective on how affect and other mental processes interact.

**Assumptions**

As the concepts of creativity, affect, and experiential learning can be varied across a variety of perspectives, there are several key assumptions which are inherent in the philosophical positioning of this study:
Creativity is a process that can be learned; and therefore, can be taught through an experiential learning perspective. While the workplace tends to emphasize observable behavioral outcomes, this study is not limited to these outcomes alone.

Creative process and experiential learning are connected at fundamental and practical levels. Experiential learning is a dynamic process of constructing individual unique meaning. Creative process involves consciously breaking patterns in the process of experiential learning, and using this consciousness to make new meaning across different contexts.

Affect is embedded in both the creative process and the constructivist experiential learning process. It is complementary to, not more important than, cognitive processes.

Facilitators are aware of their role in supporting the learning process; particularly in the affective domain. Facilitators can also express their knowledge of this role in some way.

**Limitations**

Simultaneously, there are several limitations contained in the conceptual and theoretical perspectives used to guide this study:

Due to the nature of interpretive, phenomenological qualitative research, findings may not be able to be generalized for all populations. In addition, patterns and themes in responses may be difficult to identify based on the variety of unique meaning making approaches used by participants; and furthermore, patterns and themes that are identified will have some level of subjective bias from the primary data collection tool: the researcher himself.

Gathering data by conducting two interviews and observing one learning session may be influenced by a multitude of variables that are not indicative of typical facilitator interactions. A partial list of these influences include: changes in facilitator behavior due to knowledge that he/she is being observed, changes in behavior as a result of questions asked in the interviews,
and/or compromises in learning event design/delivery based on prioritization decisions of the parent organization/client that is paying for the event.

Knowledge of the creative process, and acceptable demonstration of that knowledge by learners, may be highly variable amongst facilitators. That is, facilitators may teach only what they know, and design learning experiences that replicate their own learning style, rather than allowing a learner to develop his/her own.

Some facilitators may involve affect as part of various pedagogical techniques, but not integrate it as a part of the learning process. This separation may lead to findings important for practice, but limited in terms of the implications for integrated learning.

**Definitions**

**Affect:** Affect in this study specifically refers to emotion. Emotions are discrete feelings that can be expressed, observed by self and others, and interpreted through conscious self-awareness and thoughtful reflection (Collingwood, 1976; Damasio, 1999; Lawrence, 2008; Van Kleef, De Dreu & Manstead, 2004).

**Constructivism:** Reality is constructed by the knower based upon mental activities (mental models) that explain to the knower what he or she has perceived. Learning from this paradigm is an active process in which meaning is developed on the basis of experience. The learner is constantly building and remolding an internal representation of knowledge through personal interpretation of experience (Bednar, Cunningham, Duffy, & Perry, 1991; Jonassen, 1991).

**Creative process:** The iterative approach to stimulating cognitive mental processes of divergent and convergent thinking that elicit new combinations and reorganizations of seemingly
unrelated elements (Dietrich, 2004; Isen, Daubman & Nowicki, 1987; Levesque, 1996; Moore, 1995).

**Experiential learning:** Knowledge, skills, and/or abilities attained through observation, simulation, and/or participation that provides depth and meaning to learning by engaging the mind and/or body through activity, reflection, and application (Craig, 1997).

**Facilitator:** A person who helps another through a structured learning sequence guided by a cyclical model of experiential learning (Greenaway, 1995).

**Reflection:** Intellectual and affective activities in which people recapture their experience, think about it, evaluate it, and use it to lead to new understanding (Boud, Keogh & Walker, 1985a).

**Summary**

Innovation has become an important component for enhancing competitiveness in the marketplace (Cropanzano et al., 2003; Mumford et al., 2007), and innovation begins with creative ideas (Schepers & Van den Berg, 2007). Creativity as a process is typically positioned as ordinary cognitive mental processes of divergent and convergent thinking that elicit new combinations and reorganizations of seemingly unrelated elements (Dietrich, 2004; Isen, Daubman & Nowicki, 1987; Levesque, 1996; Moore, 1995). However, affect is also critical to advancing our understanding of creativity in organizations (Zhou & Shalley, 2008), as people must utilize all of the senses, not just the intellect or cognition to engage in creative process (Gardner, 1993).

People are emotional beings and all human experience has an affective component, whether or not we try to suppress or over-rationalize it (Crosetto, 2004; Maclaren, 2004). Furthermore, when people are faced with complex, ambiguous tasks, they tend to use their
emotions and affective states as input in making decisions and judgments (Damen, Van Knippenberg & Van Knippenberg, 2008; Sandberg, 2007). Learning creativity in the workplace is an active, constructive process where the learner integrates new information into previous memory, resulting in new meaning and behavior (Main, 1992). Emotions strongly influence what we consider to be meaningful, help us make sense of the world, shape how we engage with others, and give us a sense of comfort from that sense-making (Beatty, 2002; Sinclair & Ashkansay, 2005).

As such, some organizations have engaged a variety of methods to elicit innovation and support the learning of creative process by the adults in the workplace. One of those methods involves a facilitator role. The facilitator may play a significant role in influencing the process of learning through the content knowledge he or she has acquired, the expertise in applying the learning process and the various behaviors that he or she uses to help the learner learn, and the emotional climate he or she establishes for the learner (Anderson & Thompson, 2004; Ellinger & Cseh, 2007; Zembylas, 2007). From an experiential perspective, emotional engagement with the subject matter can be best facilitated by a teacher in three primary ways: establishing and sharing common similar experiences with the students, fostering long-term relationships with the student, and/or listening intently in order to empathize with each others’ (facilitator and student) experiences (McCaughtry, 2004).

Studying how facilitators use affect to help adult employees learn and apply creative process may provide new insights in how affect influences the learning process, how affect influences the creative process, and how facilitators use affect to help adults learn creative process. Studying this phenomenon utilizing a qualitative research focuses more on rich description and reasoning that exist in the preparation, activities, and reflection used during the
learning process. Inherent in this approach is the assumption that multiple realities exist (Flowerday & Schraw, 2000), and this study is attempting to capture both the variety and similarities of the meanings constructed and practices used by facilitators in supporting the learning of creative process. In all, the results of this study may help to further construct a more complete and integrated view of creativity in the workplace that may facilitated more effective decisions on how to better support it.
Chapter 2

Introduction

Most of the traditional research surrounding creativity in the workplace has been driven by cognitive, organizational and social psychology, with very little interest in the role that affect may play in better understanding and fostering creativity at work (Alsop & Watts, 2000; Forgas & George, 2003). With the field struggling to understand seemingly contradictory findings about the influence of affect and the creative process (Zhou & Shalley, 2008), recent literature has specifically called for additional research in creativity and affect (Kurtzberg, 2005) and for inductive methods to enhance employee creativity in practice (Levesque, 1996).

Viewing creativity at work through an affective lens may challenge previous assumptions about creativity, and possibly open new avenues for understanding, fostering and learning creative process (Barsade & Gibson, 2007). Creative activities are affectively charged experiences that shape, and are shaped by, emotion (Amabile et al., 2005). Our knowledge of creativity in the workplace may be hampered by the failure to consider the impact of emotion on organizational behavior (Pirola-Merlo et al., 2002). Multiple types of measures and a combination of methodologies are required to obtain a richer understanding of the experience of creativity (Levesque, 1996); and therefore, there is a need for new, multi-level studies of creativity in the workplace, including how creative leaders can foster creativity (Mumford & Hunter, 2005; O’Hara, 2001). While only one approach of the many needed, this proposed study may uncover new interpretive understanding of how those charged with fostering creativity in organizations actually position affect and creativity within themselves and the interactions they have with others.
To better inform the understanding of how affect might be used to foster creativity in the workplace, this chapter will examine current literature about creativity in order to select an appropriate definition for the workplace, identify connections of how affect might influence the learning of creativity, and highlight the implications of how those connections might influence the teaching of creativity in the workplace. The flow of this chapter is organized by first understanding the concept of creativity (including key concepts and definitions), and then discussing how creativity exists in the adult workplace. This is followed by an exploration of affect, specifically as it relates to creativity in the workplace. The chapter concludes with an integrated discussion of how creativity is fostered in workplace organizations, focusing specifically on the learning and teaching of creative process.

**The Concept of Creativity**

Creativity is a concept that has dynamic meaning; it is not easily defined and specific definitions are not consistently shared or commonly understood (Burkgren, 2004; Levesque, 1996) both within and across different domains of study (Moore, 1995). The term creativity originates from the Greek root word for krainein (to fulfill) and from the Latin root word creare (to make), and can be used to describe potential, behavior and outcomes (Derksen, 1998; DiLiello, 2006).

The rigorous academic study of creativity in psychology is generally seen as beginning with the inaugural address by J.P. Guilford when he was elected as president of the American Psychological Association in 1950 (Baas, De Dreu & Nijstad, 2008; Csikszentmihalyi, 2000; Sternberg, 2006; Vincent, Decker & Mumford, 2002). In his address, Guilford hypothesized the concept of divergent thinking (the ability to generate a large volume and variety of novel ideas in
order to solve a problem) as the primary component of creative thinking, and called for more scientific studies on creativity. During the following 30 years, the research on creativity was dominated by the field of psychology. Early research focused on establishing measures of creative potential (Puccio, Treffinger & Talbot, 1995), then shifted to cognitive styles and personality traits, and finally expanded to explore a systems view of the creative phenomenon. Systems views of creativity include ideas such as interaction between individual and environment, social factors and social judgment, and the impact of affect (Basadour & Hausdorf, 1996; Csikszentmihalyi, 2000; Lubart & Getz, 1997; Prichard, 2002; Wang & Netemeyer, 2002). One driving force for understanding creativity has been the constant shift of the underlying assumptions defining creativity.

As much as is already known about creativity within various disciplines, an integrated understanding of creativity and how it can be fostered (e.g., applied, taught, learned) is still murky. In fact, the academic debate around creativity has been likened to that of the nature/nurture debate in human development (Reed, 2005). Since the explosion of creativity research conducted by cognitive psychologists in the years after World War II, the underlying constructs, theories and approaches to study creativity have evolved into a broad variety of contributory knowledge. There is a general consensus that creativity is more than psychologically-defined divergent thinking (Donnelly, 2004), but there is still disagreement as to how all of the pieces of creativity fit together, and if the concept of creativity is/is not tied to a specific domain of knowledge (Ramocki, 1994). This lack of coordinated integration of research has created complementary, yet refractory conceptions of what creativity is and how it works. The following discussion of creativity, including definitions, principles and
applications/implications for adults in the workplace, will be used to explain the conceptual framework serving as a foundation of this research study.

**Definitions of Creativity**

Defining any term includes addressing the fundamental philosophical assumptions on which it is based. Much of the early literature on creativity is based on a humanistic perspective, which believes that creativity is an important attribute to have, a powerful path to growth, and a characteristic innate to every human being at birth (Brophy, 1998; Horner, 2006; Jalan & Kleiner, 1995; Kurtzberg, 2005, Pritchard, 2002; Smith, 2005; Tanner, 1992; Wang & Netemeyer, 2002). Adopting this point of view includes an assumption that while not everyone will attain socially-acknowledged, creative breakthroughs, everyone might be able to (Treffinger & Isaksen, 2005). It also means that each human being can find/foster innate creativity (Lucas, 2001) and can learn to improve creative ability (Lucas, 2001; Treffinger & Isaksen, 2005).

From a different perspective, the complexity of creativity is driven by the individuality of each adult, which helps to define who we are, how we learn and what we value. Not everything about creativity is necessarily socially desirable. While creative individuals are willing to take risks and make connections, they are also willing to stay in a period of indecision longer than others (Kristensen, 2004), which may not fit within the speed of business today. Many of the activities involved in creative behavior are eerily similar to rebellious and chaotic actions (Prichard, 2002). Creativity is seen by some as having the ability to accept chaos, and sometimes create the chaos, in order to challenge the status quo. Based on this perspective, creativity may not be what business wants. In addition, Prichard (2002) discussed the concept of creativity from a critical point of view, drawing to light the concepts of socially-defined power inherent in the judgment of defining to what extent an individual, activity or outcome is creative.
These various perspectives about the nature of creative ability can be viewed as mutually exclusive; however, only by integrating these perspectives can a more comprehensive understanding of the complex, multi-layered concept of creativity be attained (Styhre, 2008).

As a result, there is no single, universal definition of creativity, as it is generally believed to be a confluence of many relative and uncertain aspects (Barak, 2006; Feldhusen & Goh, 1995). There are numerous factors which contribute to its development and expression (Basadur & Hausdorf, 1996) that have resulted in a lack of widely-accepted criteria (Runco, 2000). Fenwick (2003) argues that innovation (a manifestation of creativity) contains a variety of rational, intuitive, emotional and social processes grounded in a specific context of practice. Csikzentmihalyi (1996) and Haensly and Parsons (1993) describe creativity as a series of interactions between the individual and contextual domain, and outcomes are determined creative (or not) by those in the field who are most familiar with the context. According to Kurtzberg (2005), creativity becomes exponentially more complicated when social interaction and perception are included. Consequently, many varieties of definitions currently exist. For example, the staff planning the commemoration of the centennial for the Nobel prize identified 100 descriptions of creativity (Smith, 2005), and Treffinger, Young, Selby, and Shepardson (2002, as cited by Selby, Shaw & Houtz, 2005) reviewed 120 characteristic definitions culled from over 100 articles.

Creativity has been defined as an inherent personal trait, a cognitive problem-solving process, an attribute of a particular product, and a meaning making process influenced by environmental forces (Hunsaker, 2005; Kerr & Gagliardi, n.d.; Runco, 2003). Most widely-accepted definitions of creativity mix a variety of different aspects of the concept (Smith, 2005). Four of the most common aspects are traits, activities, outcomes, and social judgment. As a trait,
creativity might be better understood intuitively than defined (Jalan & Kleiner, 1995). Cognitive psychologists generally refer to creative traits as constructs that run parallel to intelligence. They believe that creativity is similar to intelligence as it is a trait applicable across domains and disciplines, but is also different because it is not restricted to cognitive or intellectual functioning (Feldhausen & Goh, 1995).

Viewed as an activity, creativity is presented as a series of behaviorally-defined actions, such as making sense out of complexity, putting ideas together in a different, imaginative way and generating novel but practical ideas or acts (Donnelly, 2004; Wang & Netemeyer, 2002). This aspect introduces a social component of creativity, where teams of individuals might be able to collaborate within (and learn from) the creative process. This view also introduces the possibility that creativity is actually a method to construct personal meaning (Runco, Dow & Smith, 2006), and a learning process where experiencing creativity can facilitate a change in both patterns of behavior and environment (Lones, 2002).

When defined as an outcome, creativity is the production of original (novel), socially-valued (appropriate) works (Csikszentmihalyi, 1988, 2000; Lubart, 1994; Lubart & Getz, 1997). In this view, creativity resides in the results of the cognitive process, and not in the attributes of the individual or the efforts taken to achieve the results. This perspective is also socially situated, where outcomes are judged as being (or not being) creative by others (Chen, 2006). In the workplace, the most widely accepted definition of creativity is the production of novel ideas made useful; and subsequently, the outputs or outcomes of the ideas (not the individuals or the process) typically contain the attribute of ‘being’ creative (Puccio, Firestein, Coyle & Masucci, 2006).
In a more recent perspective, Runco (2003) frames creativity in terms of personal constructions and the requisite cognitive processes that extend beyond the boundaries of the problem being solved and the product being produced. He refers to ‘personal creativity’, where the assumption is that everyone has creative potential; which is in contrast to the ‘have or have not’ question typically assumed in research on creative personality. It is in ‘personal creativity’ that a connection between creativity and learning becomes more evident. Viewed in this way, creativity becomes a process that involves changing one’s pattern of behavior (Lones, 2002), and requires constant internal reconciliation (cognitively, affectively, somatically) of those changes when confronted with various ontological beliefs found in the rest of the (social) world. These constant exchanges lead an individual to a repetitive pattern of challenging one’s own beliefs and redefining what is creative. It is a process of learning about oneself, and using that learning to better understand others in the world. It is in this process of learning that new patterns of meaning evolve, and in reflecting on these new patterns, meaning making happens (Helson & Srivastava, 2002).

In summary, while there are many different interpretations of creativity, there also seem to be several commonalities that emerge. There seems to be elements of originality, novelty, and social judgment. Creativity is a description of something (or someone) that is socially judged as not part of the norm, or at least not expected, in a particular context. For example, for artists it is a personal representation of the world that causes others to pause and react; for business, it can be a unique service or work process that changes the work itself, how the work gets done and/or how the customers embrace (pay for) it. In some ways, creativity is defined by what it is not; that being the status quo, best practices, and/or routine.
Creativity in the Workplace

Employee creativity in the workplace is generally considered the production of ideas, products, or procedures that are novel, original or different from the ordinary; and are also potentially useful or valuable to the organization (Averill, Chon & Hahn, 2001; Baer, Oldham & Cummings, 2003; George & Zhou, 2002; James, Broderson & Eisenberg, 2004). The terms creativity and innovation are often used interchangeably, with creativity being favored in theoretical discussions and innovation the preference in discussions of workplace practice (sometimes called organizational creativity). Innovation first involves creative thought, feeling and effort, which is then applied to specific, ill-defined workplace challenges in a structured way to transform and implement novel ideas and products that produce intended results and meet market needs (Berkshire, 1995; Christensen, 2006; Cooper, 2005; Madjar, Oldham & Pratt, 2002; Rank, Pace & Frese, 2004; Scott, Leritz & Mumford, 2004). Innovation cannot happen without the existence of creativity (Shalley, Zhou & Oldham, 2002; Wang, 2005), but creativity can exist without the need for workplace innovation.

Creativity in the workplace might be best understood through the interconnected cognitive processes and affective mechanisms used to access and apply knowledge in the generation of ideas (Scott, Leritz & Mumford, 2004). In most cases, creativity in an organization results in some type of product or performance; be it an output or behavioral outcome. These outputs or outcomes occur at several levels, including the individual, the team, and the entire company (Borghini, 2005; Mumford & Hunter, 2005). Establishing consistent measures of creative performance across these levels has been notoriously difficult (Kratzer, Leenders & Van Engelen, 2004). As a result, studies on creativity and innovation in workplace
organizations can involve any of these levels, and any combination. In fact, many findings in the literature may seem contradictory, as they target different levels (Mumford & Hunter, 2005).

One way to view creativity in the workplace is by examining the extent to which an organization has provided formal support (e.g., approaches, tools, and resources) to encourage meaningful novel behaviors within the organization (Sundgren & Styhre, 2003). This view is focused on a behavioral approach, where embedded structures in the organization elicit the necessary creative behavior from those who participate in it. It also assumes that any participant can express creative behavior, rather than assuming creativity is an innate quality of a few extraordinary individuals. Another way to position creativity in the workplace involves separating idea generation from taking action on those ideas (Kratzer, Leenders & Van Engelen, 2004). This position is best articulated as developing original ideas, producing intelligent work and making discoveries, as well as innovation (implementation of those ideas); however organizational creativity does not always coincide with innovation, as change can occur incrementally without new ideas (Borghini, 2005). A more inclusive way to view organizational creativity is offered by Woodman, Sawyer & Griffin (1993), as it is the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system. This is an interactionist perspective, which acknowledges the observable behavioral outcomes and products, but also acknowledges the consistent interaction between individuals, teams, and the field of domain experts that over time foster creative performance.

The concept of creativity at work has been studied in a variety of contexts and domains (separately and in combination). It has been studied from the individual perspective (creativity is an output of individual ability), structural perspective (creativity is an output of organizational design), and interactive perspective (output of organizational climate and collaboration) (Styhre,
The models offered by Rhodes (1961, as cited by Hunsaker, 2005), Dohr and Portillo (1990, as cited by Reed, 2005), Basadur and Hausdorf (1996), and Selby et al. (2005) approach the discussion of creativity by using the common ‘4 P’s of Creativity’ terminology of Person, Process, Product and Press. Most research on creativity has generally been aligned or critiqued through these ‘4 P’s’ (Kurtzberg, 2005; Levesque, 1996). The first two P’s – Person and Process – are focused primarily on the individual and his/her role in creative activity. The other two P’s - Product and Press - begin to shift the emphasis toward the interaction with, and judgment by, others. Details regarding the essence of each of the 4 P’s is described next.

Creative Person

Research on the creative person centers on the individual, and can include phenomena such as intelligence and personality traits (Derksen, 1998; Levesque, 1996; Zhou, 1998). A key assumption of this type of research is that the ability to be creative is largely innate (albeit not necessarily equal for all), and each individual is unique in how he/she expresses creativity (Horner, 2006). How well these creative abilities are developed or inhibited are a function of various psychological variables. While there is a substantial amount of literature that uses biographic methodologies (interviewing individuals who are socially-acknowledged as ‘creative’ people in order to further detail individual personality characteristics and historical influences) (Selby et al., 2005), most early theories of creativity based on creative person are grounded a psychometric perspective (Horner, 2006; Sternberg, 2006). Psychometricians view creativity as a measurable trait (Donnelly, 2004) and use psychometric tools that focus on identifying, classifying and predicting attributes of ‘creative’ individuals (Ramocki, 1994; Smith 2005).

Some of the early study methodologies in creative person grounded in cognitive psychology position creativity as a distinctive type of applied intelligence (Horan, 2007;
Kurtzberg, 2005; Sternberg, 2007). Intelligence is defined as a set of aptitudes, abilities and skills that combine to help recognize key information (and limitations of information) in an environment, and to select strategies to manipulate, or adapt to, that environment (Horan, 2007; McCrae, 1987; Sternberg, 2007). Applied intelligence (or ability) refers to the skills needed to recall, recognize, analyze, evaluate and judge information; as well as the skills to select, adapt and shape the environment to manage oneself, others, and tasks (Sternberg, 2007). People with higher levels of observed creative ability typically have the ability to identify chunks of information, manipulate and interpret that information through a number of different labels and perspectives, and use them in new and unusual ways to generate novel, high-quality ideas that are interpreted differently than ‘good’ or ‘bad’ (Burkgren, 2004; Derksen, 1998; Lindstrom, 2006). From a cognitive frame of reference, there is no universal consensus as to what distinguishes the level of creative intelligence or ability that one has. For example, Riley (1993) states that an individual’s inductive reasoning abilities are what determine how creative an individual might be, while Guilford focuses on divergent thinking.

If one adopts a view of creativity based on similar attributes of intelligence, then one believes that each individual has the potential to be creative; that one reaches his/her potential at a relatively early age, and that potential does not radically change thereafter (Torff & Sternberg, 1998). Much of the psychological research on creativity in this area has focused on creativity as an intellectual attribute of an individual, where each person has a certain amount of it and it that amount was relatively fixed throughout life (Fitzgerald, 1990; Butcher & Niec, 2005; DiLiello, 2006). This suggests that adults are limited in their ability to be creative, based on innate physiological attributes at birth and learned psychological processes from early childhood. For example, in one study using psychometric measures grounded in personality and cognitive
psychology, it has been estimated that creative ability diminishes by 40% between the ages of 5 and 7 (Kerka, 1999). Kwiatkowski, Vartanian and Martindale (1999) also suggest that significant differences are found in creative cognitive processing abilities, and that intelligence interacts with task complexity, while creativity does not. Some researchers in the area of creative person believe that this kind of creative intelligence or ability is normally distributed across the general population, while others focus solely on the outcomes of the ability; and therefore, true creative ability is only the property of exceptional individuals (Reuter et al., 2005). In either view, it is assumed that although everyone may have some level of creative capacity or potential, not everyone has equal amounts of cognitive or affective resources from which to draw (Averill, Chon & Hahn, 2001).

Another major area of studying the creative person involves uncovering key personality traits. Personality is typically viewed as a complex collection of traits and characteristic dispositions (McCrae, 1987). Research conducted on creative personality has evolved from the belief that creativity is an attribute of the person, regardless of context. In this paradigm, an individual is either creative or not, and he/she cannot ‘turn it on/off’. Some of the more consistent findings from studies on creative personality tend to identify creative traits as including an intense curiosity, flexibility in changing perspective and challenging patterns, openness to experience, tolerance for ambiguity, and a preference to work autonomously (Kerka, 1999; Mumford, Hunter, Eubanks, Bedell & Murphy, 2007; Mumford & Hunter, 2005). Some other common intellectual, affective and social trait elements that emerge are: tolerating ambiguity, curiosity, taking/accepting risks, debate from multiple points of view, self-efficacy, and courage/persistence in the face of adversity and/or convention (Brophy, 1998; Donnelly, 2004; Guitard, Ferland & Dutil, 2005; Jalan & Kleiner, 1995; Kristensen, 2004; Segal, Vizueta,
Buickans & Pollak, 2001; Selby et al., 2005; Sternberg, 2006; Tanner, 1992; Torf & Sternberg, 1998). Creative individuals seem to take great pleasure and satisfaction in solving problems and synthesizing connections between seemingly disparate concepts (Horner, 2006). Brophy (1998) adds that divergent thinkers are intrinsically motivated, maybe even subconsciously propelled, to solve problems creatively. Kirton (as cited in Riley, 1993) classifies a continuum, with Innovators as people who prefer to do things differently and start by questioning assumptions and Adaptors who prefer to do things better and start by questioning outcomes. Adaptors proceed in a disciplined, practical and methodical manner (from within the existing paradigm), while Innovators attack problems with less concern for existing rules, social norms and work patterns (challenging the paradigm) (Puccio et al., 1995). This continuum is consistent with Sternberg’s (2006) arguments in which there are people who are creative through extending current paradigms, others who are creative through rejecting and replacing current paradigms, and still others who focus their creativity on synthesizing current paradigms.

However, to date no universally accepted set of personality traits can consistently define the ‘creative person’, as context seems to play a role influencing expectations and social assessments. For example, rebelliousness and nonconformity are often linked to creativity in artistic professions, while conscientiousness appears to be linked to creativity in technical professions (Mumford & Hunter, 2005). Furthermore, studies that examine the relationship between intelligence and creative ability tend to find that existing psychometric tests do not measure all of the abilities required for creativity (Brophy, 1998; Horner, 2006). Existing tests seem to be measuring the same things with some consistency and reliability, but they aren’t necessarily discriminating or predictive (Torr, 2008). This is most likely because most widely accepted intelligence tests focus primarily on convergent thinking (coming to conclusions), while
creativity calls for a balance of both convergent and divergent thinking. Subsequently, viewing creativity in the workplace solely through a creative person lens offers only limited understanding of the phenomenon itself.

**Creative Product**

In the workplace, ideas and actions are considered creative if they result in a tangible creative product (Levesque, 1996), which is broadly defined as deliverables or results that are both novel and useful (Harris-Boundy, 2006). These original products, services or ideas may be generated by an individual or team, and may require a variety of other people to help test, evaluate and communicate (DiLiello, 2006; Harris-Boundy, 2006; Kerka, 1999; Liddell, 2005; Zhou, 1998). According to Kurtzberg (2005), creativity is a multi-dimensional construct with both objective and subjective elements, and Sternberg (2006) adds that creative contributions are judged within some type of context. At some point, creativity has a product associated with it, and judgment of that product is made (Horner, 2006). This translates to several kinds of product measures. Creative solutions are typically assessed with both qualitative scales such as appropriateness, usefulness, goodness, novelty, originality, appeal, unusualness or uniqueness (Brophy, 1998; Reed, 2005; Sternberg, 2006); and quantitative scales such as feasibility, utility, performance, or technically sound/well-crafted (Brophy, 1998; Reed, 2005). One example of a qualitative scale is offered by Csikszentmihalyi (1996), who described three uses of creativity: expressing unusual or stimulating thoughts (brilliance), sharing insightful perceptions or judgments (novelty or originality), and changing the culture in an important respect (social impact or influence).

A key to a creative product perspective is the role that others play in making judgments about the creative attributes of what is produced; that there is a socially recognized contribution
(Liddell, 2005). The ideas themselves may simply be a recombination of old ideas in a unique way that is perceived by others as new (Styhre, 2008). This idea highlights the relative context that exerts influence on the judgment of what might be creative (Lindstrom, 2006).

The concept of creativity has at least two types of subjective judgment: an individual component (which is typically linked to personal satisfaction) and an interactive, socially-constructed component (which is typically linked to relative context) (Kurtzberg, 2005). Products are judged more/less creative by the individual themselves (e.g., alignment with personal vision), the variety of standards established by current societal and cultural contexts (e.g., academic, business), and the sometimes fickle shifts of historical societal and cultural contexts (e.g., what was novel or ridiculous at one time is now passé). Consequently, products will rarely have a constant label of creative; rather, the judgment will change over time and context. Many times, because the world may not realize (or fully understand) an advanced or alternatively valid way of thinking, creative and novel ideas are initially rejected (Sternberg, 2006; Lubart & Getz, 1997). That is, new ideas rarely stay new, and ideas originally dismissed may simply be ahead of their time.

From a pragmatic point of view, in order for something to be (or be more) creative means that there is a definition of what is not (or is less) creative (Luchins, 1961). The subjectivity of using universal criterion for assessing creative products is not practical; instead, most situations refer to creativity as a relative measure. From a Foucauldian point of view (Prichard, 2002), those in power (society) make determinations as to what is valued. In the context of creativity in the Western society, two major constituencies hold power: those who are considered experts in the field where the creativity is applied (Feldhausen & Goh, 1995) and those who market and/or purchase the products. Amabile (1996) attempts to leverage these issues of power into a
methodology of assessment for research by using a panel of domain experts to judge creative aspects of a product. In a way, this approach guards against society rejecting new ideas that are not fully understood. For example, accomplished musicians can easily determine if a novel performance is the result of the performer musician not being able to consistently hit the right notes or if she/he has actually mastered technical styles and has added new variations, interpretations and improvisations (Joy, 2004). However, it also reinforces the power of the experts as gatekeepers in determining what knowledge and ideas are valuable and credible, which can introduce barriers for introducing new ideas to the world. Williams (2002) suggests that when socially-driven judgment is suspended, people are more willing to share unconventional and unusual ideas.

**Creative Press**

Press refers to the environmental factors (i.e., climate) that might foster creativity, such as culture, values, norms, feedback, recognition and politics (Levesque, 1996). While much research has started with the question “what” is creativity, Creative Press starts with the question “where” does creativity occur (Donnelly, 2004). Creativity occurs in a social context, and environmental conditions serve as stimuli for creativity (Luchins, 1961; Reed, 2005). Culture and context exert forces on individuals and individual thinking (Torff & Sternberg, 1998). To explore Press requires an understanding of the supportive culture for creativity and the influence from teams. Research in this area usually focuses on the conditions that help creativity flourish in organizations (Cooper, 2005), as well as the removal of external pressures and influences that restrict novel and unique ways of making meaning of the world. Press includes a framework that positions creativity as a function of employee characteristics and the context in which work occurs (Shalley, Zhou & Oldham, 2002).
From an internal perspective, studies attempt to identify how people’s perception (experienced or imagined) of their immediate work environment (and interactions) influences current and future creative behavior (Hunter, Bedell & Mumford, 2007). From an external perspective, studies attempt to identify to what extent that leader control, group structure, work design, and leader support have on creative performance (Mumford & Hunter, 2005). A creative climate involving challenge, intellectual stimulation, autonomy, and positive collegial exchange of thought have been found as particularly strong influencers on creative performance (Hunter, Bedell & Mumford, 2007). It has also been found that a widely-held perception (image) that a climate is creative has influence on not only immediate creative performance, but also retains and attracts people who have internal capability and motivation to be creative (Hunter, Bedell & Mumford, 2007; Mumford & Hunter, 2005).

A key issue for creative press is recognizing the influence of self-censorship and negative feedback (Williams, 2002). Brophy (1998) adds that feedback received by families, schools and employers tend to discourage creativity, and reward those who solve problems in conventional ways. This leaves individuals with a choice of how to respond to environments that are not supportive of creativity (Sternberg, 2006). It also forces management to create an environment focused on learning and resist punishment of mistakes, in order to foster creative behavior (Tanner, 1992). Such desired behavior can be elicited by aligning work activities around an established creative process.

**Creative Process**

Studying creativity as a process positions creativity as ordinary cognitive mental processes of divergent and convergent thinking that elicit new combinations and reorganizations of seemingly unrelated elements, which allow for the development, communication and
production of creative products, ideas or learning processes (Dietrich, 2004; Isen, Daubman & Nowicki, 1987; Levesque, 1996; Moore, 1995). Several aspects emerge from the literature, and together combine to better inform the concept of Creative Process. These aspects are: basic concepts involved in creative process, creativity is an iterative process; a learning process, and the discreet influences of experience, context and conflict on creative process.

**Basic concepts involved in creative process.**

Typically surfaced in this approach is the difference between critical and creative thinking. Critical thinking from a psychological perspective involves making sound and rational judgments that answer questions (e.g., black and white; true or false; real or imagined) based on best practices and patterns. Creative thinking involves suspending judgments and patterns that limit possibilities, and involves critical analysis and critical synthesis. Creative thinking involves simultaneous, iterative and recursive patterns of thinking, instead of sequential and linear, where individuals can expect to be engaged in any combination of thought patterns at any one time (Cohen & Andrade, 2004; Scott & Bruce, 1994; Zhou & George, 2003). There are three typical measures for the creative process approach: Fluency, which is the ability to generate a large number of potential responses; Flexibility, which is the ability to shift approaches and utilize a variety of strategies, and Originality, which is generating ideas and solutions that have contextual uniqueness or uncommonness (Baas, De Dreu & Nijstad, 2008; Fontenot, 1993; Kurtzberg, 2005; Scott, Leyritz & Mumford, 2004).

While there are many different models of the creative thinking process, most include at least four central steps or stages. The first step involves identifying a challenge. This includes formulating a problem or opportunity in such a way that opens up alternative views (Fontenot, 1993; Moore, 1995). Problems that are clearly stated in close-ended terms are typically not
designed to require creative thinking. The second step is referred to as divergent thinking, which involves free association and generating many different ideas as possible solutions (Eskildsen, Dahlgaard & Norgaard, 1999; James, Broderson & Eisenberg, 2004; Russ & Schafer, 2006; Scott, Leritz & Mumford, 2004). More often than not, creativity is made synonymous with this step only (Fontenot, 1993; Horan, 2007), which tends to misguide others into believing that the other stages are not as critical. While it is acknowledged that creativity requires divergent thinking, it is still under debate if divergent thinking alone differentiates creativity (Mumford, 2003; Scott, Leytriz & Mumford; 2004). The third step concerns integrative and focused thinking, which is the ability to compare and combine ideas that seem unconnected (James, Broderson & Eisenberg, 2004; Sternberg, 2007; Vinten, 1992). The last step is judging which of those ideas have merit (i.e., novel, useful) and determining how they will be implemented. The power of the creative process comes from the continuous replication and iteration of the steps in infinite loops in order to address new challenges in better ways, or to address the same challenges in new ways.

An advantage to studying creativity as a process is that it positions creativity as a learnable ability built on a replicable thinking process that can be utilized by both individuals and groups or teams (Derksen, 1998). While everyone begins life with their own capacity for creativity, this ability can be shaped through years of experience and practice. As adults join the workforce, each individual brings the lessons from years of learning about creativity and what is acceptable. These adults can generate ideas that reflect recombination of existing experiences or an introduction of new experiences to the problem at hand (Baer, Oldham & Cummings, 2003). A limitation of this perspective is the emphasis in rationality and reductionism (Vinten, 1992),
which diminishes the role that irrationality (i.e., unpredictability of the affective domain) plays in both the process and judgment of the process/outcomes.

**Creativity as an iterative process.**

The creative process can be a linear thinking process that includes iterative cycles of divergent and convergent steps (Brophy, 1998; Clapham, 1997; Selby et al., 2005). It can also be a synthesis of lateral (generating a breadth of new ideas) and vertical (developing ideas and checking them against objective criteria) thinking (Barak & Doppelt, 1999). Older versions of linear processes focused on fixing problems using divergent thinking from a defined starting point through to a defined end point. Current thinking has modified these processes to allow individuals to begin anywhere along the process, balancing divergent and convergent thinking, and focusing on moving forward on the challenge (and not artificially define an end point) (Treffinger & Isaksen, 2005).

Creativity has long been associated with divergent thinking (Basadur & Hausdorf, 1996; Selby et al., 2005). This thinking process pulls from direct experience with the current challenge and memory from previous experience in order to create new connections between challenge and solution. It is proposed that better solutions can be generated by considering the viewpoints of other people who might be involved with the challenge (de Bono, 1985, as cited by Butler & Kline, 1998). Engaging in different viewpoints might change the contextual cues from which people access memory and experience, and might lead to accessing old memories in new ways and making new connections between current context and potential solutions (Butler & Kline, 1998). The creative process helps people revalue long held perceptions and create new ways of seeing (Riley, 1993).
Creativity also includes convergent thinking steps. Convergent thinking is about determining what the single best answer might be (Clapham, 1997; Runco, Dow & Smith, 2006). Creative problem solving is a structured methodology for fact finding, idea finding and solution finding (Puccio et al., 2006). Convergent thinking may manifest itself as value creation, imagination (envisioning what doesn’t yet exist), materialization (translating concepts into real objects), and/or scale-up and commercialization (bringing idea to reality) (Kristensen 2004; Tanner, 1992). Synthesizing disparate ideas and linking dissimilar or conflicting ideas is central to the creative process (Brophy, 1998). Torff and Sternberg (1998) identify convergent-related steps such as distinguishing between relevant and irrelevant information, synthesizing information to form a unified cognitive structure, and drawing on past information to facilitate learning new information.

**Creativity as a learning process.**

The creative process itself is based on a series of cognitive and experiential activities that generate new knowledge of a situation, and spurs new guesses on what the future might/should be. Creativity as a learning process introduces a series of steps and habits which over time and experience increases one’s ability to generate creative solutions; yet those same solutions tend to lose their relative novelty and originality through ongoing judgments based on dynamic criteria (Joy, 2004). This learning process is built on practice, failure, feedback and reflection (Donnelly, 2004; Klimoski, 2005). Kristensen (2004) states that the creative process synthesizes previously unrelated elements of knowledge through a mental process in order to bring new insight and establish new knowledge. It is a process where mistakes are considered a necessity in order to learn and grow (Guitard et al, 2005). As such, it is personal, and there is not a single prescriptive methodology for all individuals or situations (Puccio et al., 1995). Defining
creativity as creative process typically assumes that creativity can be cognitively learned by most, if not all, people through training (Brophy, 1998; Clapham, 1997; Donnelly, 2004; Feldhausen & Goh, 1995; Ramocki, 1994; Sternberg, 2006). It is also important to recognize that developing creativity ability is not a quick activity, but an arduous undertaking (Donnelly, 2004; Ramocki, 1994; Van Der Veen, 2006).

Creativity can also be a non-linear learning process (Barak, 2006; Lewis, 2004). Positioning creativity in this way classifies steps of the process as random or spontaneous, and according to Barak (2006), spontaneous creativity should not be ignored. The study of creative process as non-linear focuses on personal experience and constructed, contextual meaning making; which emphasizes the role of the individual and less on mass replication of generic steps. Barak (2006) found that individuals can improve their creative problem-solving abilities by practicing ordered and disordered thinking in different combinations. McCormick and Plugge (1997) focus on creative development through regular stimulation of the pleasure centers of the brain in association with many different kinds of activities; and incorporate those associations into daily life interactions. By engaging in a defined creative process, individuals have the opportunity to replicate and practice new patterns of thinking, and focus on turning those thoughts into observable solutions. The creation of these solutions fosters an increased confidence in the creative process, which in turn creates sustainable energy, motivation and retained learning (Barak, 2006; Donnelly, 2004). Divergent and convergent thinking combined with experience leads to the generation of solutions that are more likely to be realistically accepted and implemented, which in turn leads to organizational recognition of creative performance (Vincent, Deck & Mumford, 2002).

Role of expertise and experience.
A question emerges from the collective research as to whether experience and expertise can help or hinder creative ability. Work expertise is competence in the relative embedded work practices in the work and in the associated profession (Billet, 1988). The impact of work expertise on the creativity of individuals is a delicate balancing act. On the one side, expertise obtained through experience provides insight on a challenge and the domain in which it exists. Much of workplace activity is built on a set of routines (Barnett, 1999; Boud, 2001), and the exposure to, and competence in, troubleshooting these routines can help expedite the problem-solving process. On the other side, this same expertise breeds familiarity with convention, can cloud judgments, and can hinder the ability to make new connections (Brophy, 1998; Jalan & Kleiner, 1995; Sternberg, 2006). As Lewis (2004) suggests, humans fail to achieve their full potential because of the learned habits that tend to suppress inherent creativity. The thinking patterns generated through experience help reinforce a reproduction of what is proven to be successful, and limits the exploration of more risky possibilities or alternatives (Levine, 2002). Experience can enable many adults to block their creative associations (Lubart & Getz, 1997).

Creative process solutions are generated by making new connections between past experience and current challenge through mixing and matching memories and perspectives in different ways. This is a meaning making process by which individuals suspend current frames of viewing the world and long-held definitions of conventional knowledge. Learning results from the ‘disruption’ of pre-existing patterns of thinking (Levine, 2002). As such, Creative Process fosters an “un-learning” of, or at least suspension of, conventional assumptions. In order to ‘learn’, the creative process requires direct interaction with new frames of thinking, practicing techniques that challenge assumptions, and transferring the knowledge of applying this type of thinking across different domains (Barak, 2006). Runco, Dow and Smith (2006) suggest that
divergent thinking may in fact be influenced by experience, where it becomes increasingly difficult to distinguish between original ideas and ideas drawn from memory. That is, our brains tend to encode and retrieve memories by using patterns developed over time, and these patterns are exactly what get in the way of a creative process (Lucas, 2001).

Experience also introduces a series of learned response patterns reinforced by cultural attitudes and beliefs. Sternberg (2006) states that creative contributions are judged within some type of context, and this context can exert forces on individual thinking and judgment (Torff & Sternberg, 1998). Since the workplace as a whole is evaluated on the value generated by the work, the outputs of the creative learning process are also socially judged for their creativity; and those judgments can influence how the individuals and team construct their own assessment of the learning process. Creative potential is often suppressed by societies that encourage intellectual conformity (Sternberg, 2006); and in the Western world, adults are conditioned to abandon creative impulses and settle down to business (McCormick & Plugge, 1997). Interacting within this society creates a series of experiences where creativity is not entirely supported, which can manifest itself into a conscious (or unconscious) self-censorship of creative ideas (Williams, 2002). As children, we are taught to find the right answer, which discourages experimentation, risk and instinct (Mildrum, 2000). Through a variety of social judgments, children may internalize this manifestation and focus on producing conventional work (Brophy, 1998). For example, in a study by Barak (2006) exploring how science and technology teachers learn, internalize, and use a creativity process, several observations of this self-censorship concept are illustrated in comments shared by adult students. Comments such as ‘I feel stupid’, ‘my mind is blocked’, and ‘at my age, don’t expect much from me’, were common (p. 244). In
order to regain, and in some cases relearn, creative ability, adults have to find ways to actively disengage habits that block creative thinking (Michael, 2004).

**Role of context.**

The typical goal of thinking is to create knowledge that increases our ability to act (Van Der Veen, 2006). Three of the more widely known creative processes are TRIZ, DeBono’s Six Thinking Hats, and Osborne-Parnes’ Creative Problem-Solving (CPS) process (Puccio et al, 2006). A typical creative process begins with the identification and clarification of some kind of challenge or need (Brophy, 1998; Tanner, 1992). This challenge can be positioned as a problem to solve and/or an opportunity to improve. The challenge itself can be driven by environmental needs, such as quantity, quality, cost, efficiency and customer satisfaction (Basadour & Hausdorf, 1996), and/or internal needs, such as expression of beauty, emotion, or reaction to environment. This challenge needs to be described in order to have a clear understanding of the goals of the creative process, to determine what creative success might be, and to focus creative energy (Kurtzberg, 2005). For instance, Feldhusen and Goh (1995) identify several key activities involved, such as sensing that there is an opportunity, determining the cause of the challenge and seeing the implications of taking action on the challenge. It is also proposed that this is not a single linear process; emotional-experiential and logical-rational creative processes could be considered alternative modes of creative thought, and individuals have choice in using different approaches (Lubart & Getz, 1997).

Whatever the challenge, it needs to have context that arouses curiosity and triggers affective pleasure (Lubart & Getz, 1997). This context is important for establishing existing conventional boundaries. These boundaries serve as rules, and having such rules are mechanisms to help people engage in more creative idea generation (Brophy, 1998). The
context is also critical for identifying where to start and how to focus. Participants should have
enough familiarity with the context in order to generate reasonably good solutions (Butler &
Kline, 1998), yet be unfamiliar enough so that the individual can construct new combinations of
relevant information (Van Der Veen, 2006).

**Role of conflict.**

The creative process can be practiced by individuals and by teams. Increasing interaction
with others can create more opportunity for conflict. It is important to recognize that conflict can
occur in homogeneous teams as well as heterogeneous teams. The question arises whether
conflict helps or hinders the creative process. Kurtzberg (2005) suggests that heterogeneous
teams involve emotional conflict that may impact satisfaction of team members. Similarly,
Puccio et al. (1995) states that teams must deal with interpersonal dynamics generated from
different creative styles within the team. Another position is that the creative process is built on
a type of internal conflict referred to as creative tension (Fritz, 1989, as cited by Lones, 2002).
Creative tension consists of an individual constantly clarifying personal vision and reconciling it
with current reality, and using this conflict as a source of energy to take action.

**Summary**

The primary research question for this study involves understanding how affect might be
used to foster creativity in the adult workplace. The nature of the workplace involves individuals
who work together in order to achieve results. Consequently, this research study is primarily
grounded in an interactive, social Creative Process perspective; yet also draws on connections to
the other 3 Ps. In this perspective, it is acknowledged that different individuals bring different
levels of innate creative ability to the process, and that the process of dynamically engaging
others during creative activity in the workplace is a key ingredient to enhancing creative
productivity. As a result, the conceptual definition of creativity in the workplace adopted for this study is: Creativity in the workplace is a process of learning, in which each individual shares personal talents, perspectives and experiences collaboratively with others, in order to address a business challenge with novel and useful solutions.

Primary influence stems from the Creative Process perspective. Creativity is positioned as a learning process applied through a problem-solving application. This learning process is grounded in cognitive and affective processes that involve suspending judgments and patterns that limit possibilities, and involves simultaneous, iterative and recursive patterns of thinking (Cohen & Andrade, 2004; Scott & Bruce, 1994; Zhou & George, 2003). This results in new combinations and reorganizations of seemingly unrelated elements, which allow for the development of creative ideas and products (Dietrich, 2004; Isen, Daubman & Nowicki, 1987; Levesque, 1996; Moore, 1995). Positioning creativity in this way assumes that creativity is not an innate trait (i.e., Creative Person), but a learnable ability built on a replicable thinking and feeling process that can be utilized by both individuals and teams (Derksen, 1998). It is assumed that creativity is an ability that every person has in some quantity, and used by each individual to address business challenges (Baer, Oldham & Cummings, 2003; Burkgren, 2004; Derksen, 1998). This kind of ‘ordinary’ creativity is something that each and every individual can nurture within one’s self (Henshon, 2006). It is not built on single moments of illumination or product; instead it is developed gradually over time and through incremental changes in interpreting and re-interpreting the world. The power of the creative process comes from the continuous replication and iteration of the steps in infinite loops in order to address new challenges in better ways, or to address the same challenges in new ways. Learning results from reflecting-on-action and reflecting-in-action before, during and after these steps. It is this kind of creativity that
organizations will need to include and leverage in all of their employees in order to survive and prosper (Shearring, 1992).

The Influence of Affect in Fostering Creativity in the Workplace

Labeling certain reactions and behaviors as affective is to highlight aspects of those events which have significant emotional or feeling components (Hunt, 1987). Affect is a generic term that encompasses a wide range of emotions, moods and emotion-laden judgments (Barsade & Gibson, 2007; Glaso & Einarsen, 2006; Henderson, 2004; James, Broderson & Eisenberg, 2004, Pirola-Merlo et al., 2002). Affect can be either a predisposition to an experience that influences the activities in that experience, or a description of how the experience actually feels (physically manifests) within the interaction (Fillipowicz, 2006; James, Broderson & Eisenberg, 2004). For the purposes of this study, affect refers primarily to emotion. This section will attempt to connect affect with creative learning process by beginning with a basic description of affect (specifically emotion); followed by a description of the relationships between affect and learning, and concluding with a discussion of how creativity in the workplace can be accessed through affect.

What is Affect?

Descriptions of affect, and its relationship with cognition, are complex, interactive and co-mingling (Antonacopoulou & Gabriel, 2001). It can be positioned across a continuum ranging from social constructionist (responses to societal rules where emotional behavior is predictable, learned and rational) to psychoanalytic (responses to internal conflicts where emotional behavior is uncontrollable, contradictory and irrational) to biological processes (where emotional behavior is the result of genetics, instincts & physiology) (Antonacopoulou & Gabriel, 2001; Beatty, 2002; Glaso & Einersen, 2006). Affective responses are what a person
demonstrates when in an emotional state, including physical acts (e.g., hitting, running, etc.),
physiological and psychological changes, and expressive reactions (e.g., smiling, frowning, etc.)
(Averill, Chon & Hahn, 2001).

Affect can refer to the positive or negative feelings that an individual has about a
particular idea, concept or experience (Voss & Means, 1989). Affect first emerges as a
neural/chemical stimulation that exists below consciousness and is expressed biologically;
manifests into a feeling through self-awareness within consciousness, and through thoughtful
reflection is interpreted and organized in a social context (Collingwood, 1976; Damasio, 1999;
Lawrence, 2008). Affect includes both a rational and non-rational experience; is examined and
expressed through words, fantasy, metaphor and imagination, and is used as information and
insight to better understand the world (Dirkx, 2001; Holmes, 1990).

Psychologically speaking, an emotion is a brief exposure to feeling, which includes
internal components such as physiological (e.g. activation of the nervous system) and subjective
interpretation (e.g., internal feelings of fear); and external components such as expressive (e.g.,
facial expressions) and behavioral (e.g., fight or flight) actions (Watson & Vaidya, 2003).
Emotions are discrete, of relatively short duration, and intentional; they are directed at an object
or event and last perhaps only a few seconds (Van Kleef, De Dreu & Manstead, 2004; Watson &
Vaidya, 2003). Affect as emotions involve a perception process of appraising an event that
influences ones concerns and values, and results in physiological and non-verbal expressions and
behavior patterns (Crosetto, 2004). These emotions can be source of energy, a coping
mechanism for adapting to change, and an expression of transformation, learning and meaning
making (Antonacopoulou & Gabriel, 2001). Both emotions and feelings are subjective (Archer
et al., 2007; Cropanzano et al., 2003), and can exist within individuals as well as be shared across
groups. People are emotional beings and all human experience has an emotional component, whether or not we try to suppress or over-rationalize it (Crosetto, 2004; Maclaren, 2004). And it is those affective experiences that help create the diversity of who we are as individuals, as well as contribute to how we interact with others in the workplace.

Emotion is an expressive state of mental arousal that can prompt some activities and interfere with others (Crosetto, 2004). They are distinctively focused thoughts, physiological and biological states that are relatively intense, short-lived and rapidly changing (Barsade & Gibson, 2007; Glaso & Einarsen, 2006; Henderson, 2004; James, Broderson & Eisenberg, 2004). Emotions have a shared biological core that include patterns of profound, innate and evolutionary chemical and neural responses, which are interpreted over time and through experience as unique sets of feelings (Damasio, 1999). This means that emotions are not characteristics of a person, but are discrete affective states perceived by the individual, and have an identifiable object and cause (e.g., that song makes me feel happy) (Cropanzano et al., 2003; Pirola-Merlo et al., 2002). Emotions can function as communication signals (Mayer, Salovey & Caruso, 2008), which involve a perception process of appraising an event that effects ones concerns and values that results in physiological and non-verbal expressions, and behavior patterns (Crosetto, 2004). These expressions can be a source of energy, a coping mechanism for adapting to change, and an expression of learning and meaning making (Antonacopoulou & Gabriel, 2001). Goleman (1996, as cited by Glaso & Einersen, 2006), refers to eight primary emotions: anger, sadness, fear, nervousness, pleasure, love, surprise, and shame; while Damasio (1999) categorizes six primary emotions: happiness, sadness, fear, anger, surprise, disgust.

From an individual perspective, affect has also been classified into its own domain of knowledge and state of being, when combined with cognitive and physiological domains, make
up a complete human being (Thompson & Mintzes, 2002). Much of this work is based on
cognitive and behavioral psychology, and organized in such as way to better integrate with
models and approaches accepted in those disciplines. The affective domain is typically
presented as a hierarchical model of perception, beginning with a willingness and ability to listen
to information, then actively responding to that information, making a judgment about the value
or worthwhileness of that information, organize the information in alignment with existing
values, judgment and behavior, and ultimately at the highest level, the willingness to revise
organization, values, judgment and behavior as a result of new information (Krafhwohl et al.,
1964; Shepherd, 2007). All of these psycho-social levels and behavioral responses can be
associated with a variety of physiological (e.g., perspiration, heart rate, respiration, etc.)
behaviors/responses (Cropanzano et al., 2003; Main, 1992).

Affect within groups and between individuals has been more difficult to conceptualize,
define and measure (Beal et al., 2005; Meredith, Fortner & Mullins, 1997). The affect resulting
from group interactions are not simply a sum of the affect brought to the groups by the
individuals, but a result of the interactions between those individuals and the meaning associated
to those experiences by both the group and individuals involved (Beal et al., 2005). In today’s
marketplace, the pressures of competition have driven some organizations (guised as efficiency)
to minimize or eliminate the people factors, which includes the relationships, chaos and change
needed to help the organization, its employees, its customers, and society to evolve and grow
(Gardner, 1993). All of these are affectively-charged phenomena with which both individuals
and groups frequently experience in every day work (Brief & Weiss, 2002), and have an impact
on future engagement with organizational activity.
All affect have an evaluative component (Cropanzano et al., 2003). Important in relation to workplace, affect priming is the selective attention, encoding, retrieval, interpretations and associations made in relation to one’s current affective state (George, 2000). In other words, affect can develop as a series of predictable patterns of perception. This is where certain situations evoke specific affect, and in turn, influence the interpretation and judgment (or meaning) of that experience, and subsequently influence the ongoing cognitive, affective and physiological states of the group (and each individual) involved. It is this connection that offers a critical link to creativity in the workplace, where patterns of behavior are developed over a lifetime of individual and group experiences (all of which have affective components), and the ability to not simply suspend affective judgment, but to actively engage in affect outside of learned patterns of affective judgment that may uncover novel and useful (i.e., creative) products and/or ways of working. In summary, affect for this study refers to emotions that are expressed, observed by self and others, and interpreted through conscious self-awareness and thoughtful reflection (Collingwood, 1976; Damasio, 1999; Lawrence, 2008; Van Kleef, De Dreu & Manstead, 2004).

**Affect and Learning**

All human experience, including learning, has an affective component. Individuals can try to suppress the feeling of emotion, but cannot fully prevent the expression of emotion (Crosetto, 2004; Damasio, 1999). Organizational scholars and leaders have typically positioned emotionality is the antithesis of rationality, a mediator or distracter of rational thought, unpredictable; and therefore, something to be avoided or ignored (Crosetto, 2004; Getz & Lubart, 1999; Levesque, 1996; Mayer, Salovey & Caruso, 2008; Pirola-Merlo et al., 2002). From a learning in the workplace perspective, reason and rationality have traditionally dominated theory
and practice; and emotions have been positioned as disruptive to learning and something to be isolated and controlled (Dirkx, 2001; Bierma, 2008). In this psychoanalytic view, individuals are encouraged to make one’s emotions explicit – reflect upon them, articulate them, and acknowledge them – in order to be liberated from them (Maclaren, 2004). However, new evidence shows that affect and moods are an essential input to managing knowledge and meaning. Emotions can be the equivalent of judgments (Taylor, 2001), informing how we determine what is relevant, what we reason to be new and novel, and when we have spent enough time and resources on a specific creative task (George & Zhou, 2002). Relying solely on rational reasoning without affect can actually dilute the inherent meaning that the emotion is communicating (Dirkx, 2001; Maclaren, 2004), and may lead to disastrously poor decisions and judgments (Forgas & George, 2003). In fact, there are far more neural fibers from our brain’s emotional center connecting into the logical/rational centers than the reverse, which indicates that emotion may be a more powerful determinant of our behavior than our brain’s logical/rational processes (Sylwester, 1994). It has more recently been suggested that emotion and feeling play a more central role in accessing the unconscious self, which offers a more enriching view of experiential knowledge.

Affect can be positioned as either a predisposition to an experience that influences that experience, or the description of how that experience actually feels in the interactions (Fillipowicz, 2006; James, Broderson & Eisenberg, 2004). Experience describes a process of encountering, engaging with, and understanding the relationship between internal self and the external world (Yorks & Kasl, 2002). The experience of emotion acknowledges the existence of multiple versions of self and knowledge, which combine form a more holistic understanding of self and the world in which self exists (Dirkx, 2001; Dirkx, 2008; Lawrence, 2008). As such, the
affective domain must be acknowledged as a core foundation of both the experiential learning process and how individuals meaning-making from it (Cafarella & Merriam, 2000; Dirkx, 2001; Dirkx, 2008).

Learning can be enhanced or hampered by the learner’s emotional state (Crosetto, 2004). Experience provides a foundation for learning; and reflection-in and reflection–on that experience provides the context for learning to occur. The emotions and feeling present in any of these activities becomes intertwined in the knowledge that is created, and become attributes of that knowledge which help the individual make sense of self and the world (Dirkx, 2001). Future experiences can then draw on connections to the various different dimensions of that learned knowledge (e.g., re-engaging in the feeling) in order to re-construct new knowledge. The learning in this case can be twofold: the affective dimension of the knowledge gained within the experience itself, and the understanding gained about how affect influences the personal interpretation of that knowledge. The ability to integrate affective, cognitive and behavioral dimensions of knowledge is considered an indicator of healthy growth and development of the individual (Mayer, Salovey & Caruso, 2008). Developing this capacity to explore and understand ones emotions more fully can also potentially increases an individual’s ability to learn, construct meaning, and take action (Levin, 1997).

For the purposes of this discussion, affective learning is conceptualized as the interpretation of experience that may be initially subconscious, and becomes meaningful when the interconnections between thought and feeling are reflected on consciously. The increased awareness of these interconnections, as well as the increased ability to access them, better enable the conscious recognition and engagement of the reflection (Getz & Lubart, 1999). It is the conscious engagement with affect by the individual that characterizes affective learning
Lawrence, 2008). Knowledge and meaning is primarily constructed by the individual, and can manifest itself through language, image, metaphor, imagination, and other ways of knowing (Dirkx, 2001). Existence and expression of emotion precedes conscious awareness of the emotion, and once an individual becomes aware of the emotion (i.e., it is felt), conscious reflection enables meaning to be made (Damasio, 1999). However, consciousness is not required in order to initiate connections between previous experiences and new experiences; it is only required to be able to achieve sense-making. To facilitate this learning process, educators must help individuals actively recognize and engage with emotions during learning experiences (Dirkx, 2001), and build both capability and self-confidence in making meaning of the affect in combination with other ways of knowing. Before further discussion about learning and accessing creativity in the workplace, the role of affect in the creative process first needs to be briefly addressed.

**Affect and Creativity**

Creativity is a human capacity embedded in affect (Styhre, 2008), as emotions can enable or prevent creative efforts and, creative work can have profound emotional consequences (Averill, Chon & Hahn, 2001). Affect can influence attitudes and values, judgments formed about colleagues and tasks, and drive choices and behaviors, which can translate into higher levels of creative thinking, action and performance (Forgas & George, 2003; Kurtzberg, 2005). People doing creative work have expressed a profound level of emotional experience as part of their creative process (Spendlove, 2007). For example, humor, joy, surprise, pleasure in the challenge and pleasure in solving problems are examples of positive affect at work that have been found to enhance creativity (Fillipowicz, 2006; Holmes, 2007; Russ, 1998; Worthington, 1994). There is an assumed inherent enjoyment and invigoration (affect) that should accompany
creativity, and yet most definitions of creativity do not include the role of affect (Henderson, 2004). Creativity is filled with the excitement of discovery, anxiety with challenging the status quo, drudgery of hard work, frustration with obstacles, and anguish of failure (Pirola-Merlo et al., 2002; Zhou & George, 2003). Individuals involved with creative efforts in the workplace must be able to manage the tension, conflict and emotional discomfort that emerge with not always knowing how to proceed in the midst of organizational demands for control and predictability (Spendlove, 2007; Zhou & George, 2003).

**Physiological perspective.**

From a physiological perspective, emotion has been typically viewed as a primitive response to physiological arousal, and divorced from more desirable ‘higher’ thought processes (Spendlove, 2007). Emotions are often viewed as interfering with deliberate, rational thought; creativity, on the other hand, is typically ranked among the highest of the ‘higher’ (uniquely human) thought processes (Averill, Chon & Hahn, 2001). Yet, there is a strong connection between emotion and creativity in the workplace, as engaging in creativity inevitably creates emotionally charged tension and conflict between the need for control and predictability with the need to break conventional wisdom (Zhou & George, 2003). Implications from research in this area have shown that positive emotions may enhance creativity by reducing neural arousal and allow better access to the neural networks that encode relatively novel and unusual associations (James, Broderson & Eisenberg, 2004). Positive affect has also been associated with greater cognitive flexibility (Isen, 1999). Furthermore, the repression of affect can lead to intellectual constriction to both neural activity and emotion-laden memory, which reduces access to novel ideas (James, Broderson & Eisenberg, 2004; Russ & Schafer, 2006). Negative emotions have more mixed results. On one hand, they enhance set-breaking that causes the mind to abandon
established thinking patterns for new ones; on the other hand, negative affect (such as anger) may increase neural arousal, but reduce access to novel ideas (James, Broderson & Eisenberg, 2004).

**Cognitive perspective.**

From a cognitive perspective, emotion in cognition and memories help broaden processes of association in several ways, including the connections between the coding of and access to emotion-laden memories described by cognitive psychologists (including access to remote memories), and the increase in making connections to primary thinking processes described in psychoanalysis (Russ, 1998; Russ & Schafer, 2006). Affect does not replace cognitive components of creativity; it makes additional cognitive material available for processing and increases potential associations and interpretations (or meaning) that may be explored and/or accepted (Amabile et al., 2005; Carmeli & Schaubroeck, 2007). In fact, individuals in a positive affective mood tend to construct a simplified view of a problem that facilitates many possible solutions, while individuals in a negative affective mood focus on identifying the single, best possible solution (James, Broderson & Eisenberg, 2004). Russ (1998) outlined five affective dimensions found to be significant in the creative process: access to affect laden thoughts, openness to affect states, pleasure in challenge, pleasure in problem solving, and cognitive integration of affective materials.

Creativity as process is also about solving problems. Creative opportunities usually manifest as ill-defined problems in the workplace; that is, problems that are ambiguous and do not have simple or straight-forward solutions (Reiter-Palmon & Illies, 2004). Ill-structured problems usually involve some kind of affect attached to them (e.g., excitement of new,
frustration with status quo), and require non-standard (i.e., creative) solutions (Carmeli & Schaubroek, 2007). Affect influences the identification of a problem, as well as works to persistently keep that problem in the forefront of consciousness (Voss & Means, 1989). Creativity facilitates and enhances problem solving by helping to break perceptual sets, break cognitive sets, and testing new problem-solving strategies (Runco, 2004; Taggar, 2002). Similar to cognitive and behavioral patterns, people fall into emotional scripts or patterns, where specific emotions follow typical and somewhat predictable sequences of mental and physical events (Gibson, 2006). Each affective state creates a distinctive series of connected processes, information, ideas and symbols; generating emotion which manifests into observable mental, physical and behavioral outcomes (James, Broderson & Eisenberg, 2004).

When people are faced with complex, ambiguous tasks, they use their emotions and affective states as input in making decisions and judgments (Damen, Van Knippenberg & Van Knippenberg, 2008; Sandberg, 2007). They are constantly engaging their imagination, experiencing the excitement of discovery and the anguish of failure, and as such are more likely to be sensitive to emotion that surrounds them (e.g., recognize, adapt) (Holmes, 1990; Zhou & George, 2003). As an affectively-charged activity, creativity involves cognitive processes which are shaped by, co-occur with, and shape emotional experience (Amabile et al., 2005). Creativity has been described as a deep and reassuring emotional trance, that is at once tranquil and thrilling (Torr, 2008). According to Getz & Lubart (1999), the relationship between creativity and emotion can be conceived in several ways: it can motivate, establish a highly aroused mental state, stimulate connections between concepts, and be a consequence of creative work and output.
Creativity facilitates and enhances problem solving by helping to break perceptual sets, break cognitive sets, and testing new problem-solving strategies (Runco, 2004; Taggar, 2002). Similar to cognitive and behavioral patterns, people fall into emotional scripts or patterns, where specific emotions follow typical and somewhat predictable sequences of mental and physical events (Gibson, 2006). Each affective state creates a distinctive series of connected processes, information, ideas and symbols; generating emotion which manifests into observable mental, physical and behavioral outcomes (James, Broderson & Eisenberg, 2004). Experiences of certain positive emotions access memory in more diverse and extensive ways, which can prompt individuals to discard time-tested or everyday behavioral scripts and to pursue novel, creative, playful and often unscripted paths of thought and action (Amabile et al., 2005; Fillipowicz, 2006).

**Personality perspective.**

In the personality domain, affect can be observed as connected to the characteristic of the individual’s disposition, embedded in a series of experiential interactions, or any combination (Carmeli & Schaubroek, 2007). Introversion has emerged as a creativity predictor (Feist & Barron, 2003, 1999); however, extraversion may be beneficial for innovators who have to persuade other stakeholders in the organization of the value of new ideas. The connection between these manifestations and domains is realized through reflection. Reflection is an active and purposeful process used to connect experience, learning, cognition and feelings; creativity requires reflection throughout the exploration, discovery and interpretation of outcomes (Gray, 2007). More specifically, people involved in reflection during creative work can be over-sensitive to emotional stimulation and arousal; those with the capability and capacity to cope
with this stimulation and arousal will use it to enhance creativity, while those who do not will be emotionally withdrawn and subsequently creativity will be inhibited (Mumford, 2003).

**Social perspective.**

From a social perspective, the presence of humor and other positive emotions may help release tension, defuse anger and promote a healthy exchange of ideas, which enhances the possibility of creativity (Holmes, 2007). For example, essential to creativity is connecting with others who may share different perspectives, interpretations and experiences of the world, which involves fear (Chernin, 2002). Affect exists and is influenced by (as well as influences) group interactions and judgments (Barsade & Gibson, 2007; Cundall, Jr., 2007). Employees continuously judge the quality and value of work, including the people, practices and environment involved (Worthington, 1994). While studies have shown positive affect to more consistently and more effectively support creativity (Isen, Daubman & Nowicki, 1987), negative affect can also be just as powerful in the short term, and exist as a normal part of the creative process (George & Zhou, 2002; Henderson, 2004). The recognition of positive affect is typically subjective. For example, is laughter an example of positive affect? Laughter may be an indication of humor, but may also be an output stemming from a release of energy such as nervousness, fear, frustration, or the recognition of a pleasant shift in psychological meaning or interpretation (Cundall, Jr., 2007).

**Fostering Creativity in the Workplace**

The term creativity as used in psychology is typically focused on the individual, while organizational creativity more often includes individual, team and other social support and interactions within the organization (DiLiello, 2006; Harris-Boundy, 2006). The study of
organizational creativity tends to focus on variables and relationships that have direct implications specifically within the context of the adult workplace (Shalley & Zhou, 2008). A number of approaches have been used to encourage creativity in organizations, including: hiring creative personalities and domain experts, providing performance incentives, structuring work to align with intrinsic curiosity and passion, facilitating openness in group interactions, establishing a climate that supports time to explore, and offering training to enhance creative thinking (Scott, Leritz & Mumford, 2004; Sundgren & Styhre, 2003). Which approaches are implemented can indicate the philosophical assumptions of creativity (4 P’s) adopted by the leaders in the organization. These assumptions in turn help to define if and how the learning of creativity is supported in the workplace.

Early research on organizational creativity focused on identifying the type of person that needs to be engaged in the process, performance on thinking or problem-solving tests grounded in the workplace, and/or the resulting creative output or products (Bleakley, 2004). Using this evolution as a guide, a survey of literature in organizational creativity will be summarized by using the categories of creative personality, cognitive activity and processes, and creative systems and social interactions.

**Personality**

Similar to the assumptions of Creative Person, organizational creativity research designed to identify creative ‘people’ is typically focused on attributes, traits and styles of the individual. Key assumptions of this approach are that creative abilities are innate, creative traits exist regardless of context, and creativity is not able to be learned (but may be imitated). Much research has been conducted on trait-based predictors of creativity (Schepers & Van den Berg, 2007). This kind of research generally uses psychometric tools that focus on identifying,
classifying and predicting attributes of ‘creative’ individuals (Joy, 2004; Ramocki, 1994; Smith 2005). It also uses surveys, where individuals identify personality characteristics of self and others in order to create a profile or inventory of the ‘creative’ person (Miron, Erez & Naveh, 2004; Wang and Netemeyer, 2002). There is also a substantial amount of literature that uses biographic and autobiographic methodologies (Selby et al., 2005; Woodman, Sawyer & Griffin, 1993). For example, biographies of famous creative individuals – musicians, artists, scientists, philosophers – have been studied to identify a particular set of traits and social factors that help to establish a creative personality (Shalley & Zhou, 2008).

There has been a lot of effort in the psychology literature focusing on identifying which psychological variables early in life can predict adult creative performance (Feist & Barron, 2003). This has led to a misconception in the workplace that innovation is driven only by a few brilliant and creative inventors and entrepreneurs (Sawyer, 2006). A combination of a few static characteristics (intelligence, potential, tolerance and psychological mindedness) have been shown to explain about a third of the variance in creative achievement (Feist & Barron, 2003); and it is estimated that approximately 20% of creative ability (e.g., intelligence, personality) is inherited (Gregorenko, 2007). While it is generally accepted that personality is related to creativity, it is also accepted that personality traits and intelligence alone are not sufficient in understanding creativity (Brophy, 1998; Horner, 2006; Woodman, Sawyer & Griffin, 1993).

Subsequently, firms that believe creativity is an innate trait of a person do not invest in learning; instead, they invest in selection tools that identify personality traits such as tolerance for ambiguity, openness to new ideas, flexibility in shifting perspective, autonomy in achieving tasks, intrinsic motivation to solve problems, risk-taking and critical thinking, as well as diverse backgrounds and experiences (Holmes, 1990; Levesque, 1996; Mumford & Hunter, 2005).
These firms also look for a track record of withstanding external pressures and overcoming barriers in the midst of ambiguous work challenges (Horan, 2007; Kerka, 1999). However, Robinson & Stern (1997) argue that the real leverage for corporate creativity requires engaging all employees in creative activity, rather than trying to identify ‘creative’ individuals.

**Cognitive Abilities and Processes**

Organizational creative abilities and creative processes refer to learnable skills and activities that help individuals and teams apply and reinterpret diverse experiences in new and useful ways; typically in the context of solving a business challenge. The most common intervention to foster organizational creativity from a cognitive ability and process perspective involves some kind of cognitive training or education in the steps and practice of a particular creative process (Brophy, 1998; Clapham, 1997; Donnelly, 2004; Feldhausen & Goh, 1995; Ramocki, 1994; Sternberg, 2006). By studying the creativity from a cognitive ability point of view, one adopts the premise that all human beings demonstrate creativity in dealing with everyday life challenges (Donnelly, 2004). In most cognitive models, successful creativity is defined as requiring several different patterns of thinking, such as convergent, divergent, serial (logic, linear), parallel (associative, emotional) and quantum (intuitive, visionary, insightful) (Kerfoot, 1998). Most of the studies in this area are based on the premise that creativity can be learned; and therefore, position creativity as an iterative problem solving process that synthesizes lateral (generating a breadth of new ideas) and vertical (developing ideas and checking them against objective criteria) thinking (Barak & Doppelt, 1999) in order to provide solutions to discreet challenges. Based on a series of experiential activities that generate new knowledge of a situation, it spurs new guesses on what the future might/should be. This involves an experiential
learning process built on practice, failure, feedback, experimentation and reflection (Donnelly, 2004; Klimoski, 2005; Shalley & Zhou, 2008).

Mastering creative ability focuses on learning procedures and thinking techniques associated with the creative process. It also involves how to accumulate domain-specific knowledge (expertise) (Taggar, 2002), suspend judgment, and avoid the problems of bounded rationality that constrain perception (Hodgkinson & Healy, 2008). Domain-specific expertise contributes to the creative process by providing a broader base of knowledge and higher levels of thinking, as well as relative experience in making qualified judgments (Dietrich, 2004; Kerka, 1999). This leads to Simonton’s (2006) 10 year rule, which emphasizes a qualification of at least 10 years of dedicated study in a certain domain in order to pass meaningful judgment of creative product. However, knowing the existing rules, facts and norms within a context also reinforces existing paradigms, and can inhibit the learning of creativity (Berleson, 2005; Kerka, 1999; Runco, 2004; Sawyer, 2006). In addition, people can learn the tools to enact a creative process, but lose the inspiration needed to persevere through the inevitable obstacles inherent in creative work (Sorensen, 2006).

Tools to measure cognitive ability have included a variety of divergent thinking tests and other cognitive processing tests (e.g., Torrance Tests of Creativity, Drucker’s Functional Fixedness Problem, Guilford’s Alternative Uses Task) (Runco et al., 2006; Shalley & Zhou, 2008; Vincent, Decker & Mumford, 2002). However, additional methodologies have also emerged. Dr. Kirton developed a questionnaire used to help individuals preferred styles of approaching problems requiring creative solutions (Riley, 1993; Shalley & Zhou, 2008). Simonton (2006) reviewed first, best and last major creative work to map out creative performance and ability. Segal and colleagues (2002) used a series of story completion tasks and
self-report checklists to identify creative ability and development. Attitudinal surveys, interviews, and pre-/post-tests have also been used to unveil key insights about divergent thinking, problem-solving and creativity training effectiveness (e.g., Barak and Doppelt, 1999; Basadur & Hausdorf, 1996; Butler & Kline, 1998; Clapham, 1997). Reed (2005) interviewed retired artists to identify key experiences that influenced development of creativity ability and refinement of creative process. While important in understanding creativity, cognitive ability studies typically focus on identifying which cognitive factors and/or events that differentiate creative production; and furthermore, emphasize the need for diversity in thinking ability or perspective in creating work teams. Possibly because of the inability to measure or interpret affect, no studies were found to describe how emotion interacts with cognitive ability and processes related to creativity.

An offshoot of creative process research includes creative output. Creative output refers to the products, performance, ideas, behaviors and findings related to the actual outcome and judgment (perception) of a creative process. At some point, creative ability and process has a product associated with it, and judgment of that product is made (Hargadon, 2008; Horner, 2006; Shalley & Zhou, 2008). This translates to several kinds of product measures. The most direct and high-level objective measures include organizational ‘creative’ output, such as number of patents, patent disclosures, research papers, added value or sales percentage from new products, or inputs such as dollar investment (expenses) in research and development (Christensen, 2006; Shalley & Zhou, 2008; Townsend, 2004). A focus on these measures emphasizes the outcomes of creativity, tends to emphasize what was accomplished, and relies on correlations to draw actionable conclusions. However, correlations do not ensure replication of results, and the details of how and why creativity helped to achieve those results are hidden amongst the day-to-
day decisions needed to execute the strategic decisions driven by those correlations. Focusing on outcomes offer a simple way to measure creativity, but is inadequate in offering sustainable approaches for creativity, and is inadequate in understanding the creativity that happens every day (Townsend, 2004).

**Systems and Social Interactions**

Organizational creativity occurs in a social context; as environmental conditions can serve as stimuli for creativity (Luchins, 1961; Reed, 2005), and culture and context can exert forces on individuals and individual thinking (Torff & Sternberg, 1998), including interpretation of results. As a result, some research has focused on the social and systems influences on organizational creativity. These studies can include issues such as group and team performance, interactions, relationships, leadership, job/organization structure and organizational climate (Hunter, Bedell & Mumford, 2007; Woodman, Sawyer & Griffin, 1993).

Companies that subscribe to the concept that all employees have the potential to demonstrate creativity, tend to focus on enhancing the leadership activities, climate, and learning structures in fostering organizational creativity. Which actions are taken or emphasized underscores the level of organizational creativity the company is intending to target. An emphasis on investing in leadership acknowledges the key role that leaders play in shaping and leveraging the success of individuals and groups in creative and innovative efforts (DiLiello, 2006; Mumford & Hunter, 2005). Actions to foster organizational creativity through leadership can include developing specific skills (e.g., building relationships, setting expectations, providing feedback and recognition) of those tasked with enabling others to identify and solve problems that create valued change in the organization (Hunter, Bedell-Avers & Mumford, 2007; Isen, Daubman & Nowicki, 1987; Kerfoot, 1998; Levin, 1997; Ryan, 2001). These leaders of
organizational creativity can be persons in a managerial position, but creative leadership is not limited to (or defined by) position (Day, 2001; Hunter, Bendell-Avers & Mumford, 2007).

Targeting the team or group level of organizational creativity tends to focus on climate (or Creative Press) actions. There is a widely-held belief that if an the image of organization’s climate is perceived to be creative, it has influence on not only immediate creative performance, but also retains and attracts people who have internal capability and motivation to be creative (Hunter, Bedell & Mumford, 2007; Mumford & Hunter, 2005). Actions to influence climate are specifically targeted to influence people’s perception of the work environment, and can include formally adopting new values and norms for communication, core competencies of feedback and recognition in the performance management system, and adoption of flexible work structures designed to remove politics, such as self-managed work teams, job swapping and ‘skonk works’ (Dombrowski et al., 2007; Hunter, Bedell & Mumford, 2007; Levesque, 1996). All of these actions are intended to establish the perception that the work environment is a safe place for anyone to try new things, challenge the status quo, and learn with others in solving real problems (Dombrowski et al., 2007; Janetski, 2007; Mumford & Hunter, 2005).

The nature of organizational creativity involving systems and social interactions can be varied. Some focus on identifying external (e.g., non-human) variables that influence creative performance (Hunter, Bedell & Mumford, 2007); some focus on how creativity evolves in individuals and teams and how it can be managed in the work environment (e.g., Binnewies, Ohly & Niessen, 2008; Sundgren & Styhre, 2003), and others focus on how the interactions between individuals, teams and leaders that produce creative performance are influenced by personality, style and relationships (e.g., Kurtzberg, 2005). Methodologies for these studies become complex and varied, and typically involve surveys, questionnaires and interviews.
Although used extensively in human resources, one such emerging methodology specifically for organizational creativity involves employee perception of job satisfaction related to support of creative work (e.g., Gilson, 2008; Weseberg, 1994). Using questionnaires, interviews and measures of employee engagement, the work environment is analyzed for its perceived interpersonal support of the creative individual (Schepers & Van den Berg, 2007; Shalley & Zhou, 2008; Tierney, 2008). Most of the data collected in this category is analyzed in a positivistic manner in a search for correlations and causal relationships which can then be replicated and incorporated into specific organizational structures and practices.

**Experiential Learning and Organizational Creativity**

Creativity is a learning process that involves creating new knowledge through doing something for the first time (Woodman, Sawyer & Griffin, 1993). The creative process itself is based on a series of cognitive and experiential activities that generate new knowledge of a situation, and spurs new guesses on what the future might/should be. This learning process is built on practice, failure, feedback and reflection (Donnelly, 2004; Klimoski, 2005). Kristensen (2004) states that the creative process synthesizes previously unrelated elements of knowledge through a mental process in order to bring new insight and establish new knowledge. It is a process where mistakes are considered a necessity in order to learn and grow (Guitard et al., 2005). To best address how experiential learning integrates with organizational creativity for this study, this section will first provide an overview of the components of experiential learning, then how those components might emerge in the context of creativity and affect, and concluding with how the experiential learning of creativity might be facilitated in the workplace.
**Experiential Learning**

In cases of process or procedural tasks (such as creativity), experiential learning can be an effective foundation to guide teaching and learning activities (Kemp et al., 2002). Experience alone is not sufficient for experiential learning (Boud, Keogh & Walker, 1985a). Experiential learning draws on the meaning generated from experience and the inter-relationships between how we think about the things we feel and how we feel about the things we think (Massar, 1972). Learning from experience is based on several key assumptions: experience is both the context and the stimulus for learning, each learner actively constructs and interprets his/her own meaning from experience, and the learning is holistic and is influenced by the socio-emotional context in which it occurs (Garrick, 1999). In addition, the accumulated learning from previous experience is central to how the learner makes sense of the new experience (Boud, Keogh & Walker, 1985b).

Experiential learning theory places daily experiences as a central mechanism from which learning occurs. The study of experiential learning theory has many branches; some which focus solely on the learning that takes place while reflecting within the direct experience, and some which also focus on the changes in knowledge and meaning based through reflecting on the experience. Based on the works of Dewey, experiential learning requires direct and active participation of the learner with the environment, as well as a reflective observance of the consequences arising from those interactions (White, 2005). Experiential learning involves a series of actions and reflection, which over time establishes a set of personalized mental models that define how the world works (Gray, 2007). Experiential learning involves individuals using prior knowledge and experience to interpret personal experiences in their own way, and shape meaning to construct new knowledge (Bannan, 2004; Holmes, 1990).
How this learning occurs can vary. Argyris and Schon distinguish three types of learning that happen experientially: single loop (decisions based on observation), double loop (decisions are based on reflection and reorganizing current knowledge structures), and triple loop (when current knowledge structures are inadequate and new mental models must emerge) (Eskildsen et al., 1999). These learning loops are enabled by reflection in action (spontaneous or intuitive response) and reflection on action (retrospective review of thoughts, choices and actions to expand understanding and flexibility in future situations) (Thornton, 2005). Experiential learning addresses the needs and wants of the learner (Kearsley, 2006). It involves a shift that forces learners to assume more of the responsibility of both the learning process and the outcomes (Lee & Caffarella, 1994). That is, each student decides the extent to which they will engage in the learning events and also determine both what was learned and the value of that learning.

One of the more common experiential learning models used in the workplace was developed by David Kolb. Kolb’s theory is primarily grounded in cognitive learning processes, and emphasizes thinking through a situation after it has happened (reflection on action) (Cafarella & Merriam, 2000). According to Kolb’s model, learning involves four specific stages: concrete (real) experience, observation and reflection, formulation of a concept or strategy for new behaviors, and using those new concepts and strategies in new situations (Miller, 2000; White, 2005). A learner can first engage in this learning process at any stage, yet must progress through each stage for a particular experience in order for learning to happen (Kolb, 1984). Neglected in Kolb’s model is the influence of affect, and the role that emotion and feeling play in such learning experiences (White, 2005). However, learning experiences may include a combination of interacting cognitive and affective processes, as emotion and feelings can help to
organize knowledge that is used to filter observations and interpret meaning (Antonacopoulou & Gabriel, 2001).

Grounded in a constructivist approach, Boud, Keogh and Walker expands on Kolb to offer a 3-stage model that emphasizes both cognition and affect as a part of the experience, with a key focus on attending to negative feelings about an experience (Cafarella & Merriam, 2000; Miller, 2000). A constructivist view of experiential learning includes a more holistic view of connecting each learner’s existing knowledge, beliefs, affective characteristics and experiences to a new set of knowledge, beliefs, skills and attitudes that leads to making sense or new meaning of the experience (Cafarella & Merriam, 2000; Holmes, 1990; Lee & Caffarella, 1994). It is within Boud, Keogh and Walker’s model that the process of reflection acknowledges the interactive and inter-relational connections between cognition and feeling; the idea that negative feelings (particularly regarding self-confidence) in the experience can distort perception, evolve into false interpretation, and undermine the passion to persist (Boud, Keogh & Walker, 1985a). As discussed earlier, creativity involves emotion; therefore, the connection between learning and creativity must acknowledge some role for affect.

**Experiential Learning and Organizational Creativity**

Learning in the workplace is an active, constructive process where the learner integrates new information into previous memory, resulting in new meaning and behavior (Main, 1992). Emotions and moods drive attention and connect with motivation, which in turn, influences the richness level of both memory access and new information intake (Shephard, 2007; Sylwester, 1994). The affective component of experience may possibly be the most powerful influence of learning and meaning making (Boud & Miller, 1996).
Development of creative expertise requires engaging in chance encounters (Mumford, 2003; Styhre, 2008), accessing multiple perspectives (Berleson, 2005), and surrendering a belief in absolute truth (Durant, 2002) in order see new possibilities. To do so effectively involves both cognitive and affective energy. To help suspend patterned scripts of thought and to shift perceptions, cognitive knowledge is transformed into meaning that is captured and exchanged through aesthetics, cues, symbols, analogies and metaphors - which are facilitated by affect (Brief & Weiss, 2002; Gordon, 1976). The mood and context provided by these meaning structures help individuals improve cognitive flexibility (and therefore, creative behavior), by shifting attention from ‘solving or eliminating problems’ to ‘seeing new possibilities’ (George & Zhou, 2002; Hirt, Devers & McCrae, 2008). This is especially important for adults in the workplace, as they have a wealth of life experience and meaning from which to draw, which both (a) creates a learned reliance on established routines and best practices (patterns), and (b) offers a plethora of richly different meaning making structures from which to apply in different ways (Runco, 2004). Creative ability can be seen as how well a person can both cognitively and affectively integrate ‘order’ and ‘chaos’ (Sorenson, 2006).

So the question becomes how might creativity be learned? And how might affect influence that learning? The answers to these questions unveil several possible components. One component involves fostering creative behavior; that is, learning to maximize inherited talents and providing support in channeling those talents in a creative way. A second component involves mastering creative ability, including the skills and processes involved.

Fostering creative behavior focuses on static characteristics which can be enhanced or subdued by the contextual environment through interactions such as adopting beliefs and rules that encourage creative expression, mentoring by a respected leader, working with peers who
support creative behaviors, structuring team work around improvisational group processes, and practice (Averill, Chon & Hahn, 2001; Mumford, 2003; Sawyer, 2006). Positive mood is established to support the individual in interacting with the group; to encourage creative expression emanating from the individual’s own meaning structures and imagination (Berleson, 2005; Madjar, Oldham & Pratt, 2002). Observing others who challenge existing thinking patterns with seemingly ridiculous ideas without being humiliated may help influence one’s own creative self-efficacy and willingness to explore one’s own creative talents (Durant, 2002; Shalley, Zhou & Oldham, 2002).

Effective learning of creative skills involves experiencing, reflecting and integrating knowledge from both cognitive and affective domains (Meredith, Fortner & Mullins, 1997). Most public education in the West, and consequently in the workplace, invests and focuses primarily on cognitive outcomes of learning because they are the most accepted and predictable (Runco, 2004). Providing equal emphasis on the affective domain of learning (learning how to recognize, integrate and shape interest, attitudes, and values) results in increased self-reliance, ability to cooperate and/or lead, and self-confidence that is needed to combat rejection and perceived failure (Hunt, 1987 Main, 1992 Meredith, Fortner & Mullins, 1997 Shephard, 2007). Simply building domain-specific expertise through accumulation of facts results in less cognitive flexibility (Thompson & Mintzes, 2002); and therefore, is not adequate for creativity. It is assumed by some that expertise-building that facilitates creativity must be a more principle-based organization of knowledge (Mumford, 2000), which includes emotional cues for changing perspective and how to react to failure. Ultimately, creative expertise is the result of many failures, and the subsequent learning about those failures (Berleson, 2005).
Creativity becomes a meaning making process in part by leveraging affective learning through both components: fostering creative behaviors and mastering creative abilities. Our brains have developed two different types of neural systems, each designed to extract a different kind of information from the environment: one supporting emotions designed to attach a value to the incoming information and allows for evaluating significance of a given event; another supporting cognitive information processing designed to perform detailed analysis (Dietrich, 2004). These two systems combine to enable individuals to form constructs of knowledge, which are both held as truth, yet malleable based on new knowledge. Learning involves making meaning of these constructs, and constantly reconstructing elements into new constructs. Learning is shaped by perceptions based on previously learned constructs and the social influences on how those constructs may be perceived (Alsop & Watts, 2000). Emotions lived through are a very different thing from emotions reflected upon (Maclaren, 2004). Developing the capacity to explore and understand one’s emotions more fully can increase one’s ability to learn, construct meaning, act and communicate with others in the workplace (Levin, 1997).

Reflection in action is a primary activity conducted in the moment, and moods can influence perception of information and sense making in the moment. Reflection on action is a secondary appraisal of the initial experience (Beal et al., 2005), and secondary reflection can happen continuously, which can impact meaning making at different moments in time. In this sense, affect influences both what people think (the intake of information) and how people think (the process of making constructs) (Forgas & George, 2003).

Facilitating the Learning of Creativity

Knowledge is organized information that has been learned (Feldhusen, 2006). Meaning is shaped by internal perception of knowledge, and is actively constructed through a series of
subjective judgments, resulting in an acceptable, believable view of reality (Beatty, 2002; Berleson, 2005; Park, 2007). These judgments are shaped by affect, which shows up in the mood of the group (climate), the affective engagement of the individual (motivation), and the emotional adaptation (or emotional charge) needed to make sense of the new information (Durant, 2002; Spendlove, 2007; Wilson & Gilbert, 2005). These affective influences can be non-consciously processed and examined (Beatty, 2002; Brief & Weiss, 2002), allowing us to associate specific moods and emotions with different types of experiences, judgments, motivations and results (Baas, De Dreu & Nijstad, 2008). Reason and rational cognition may override some of the emotions, but the real feelings about an issue are not ‘unlearned’ (Sylwester, 1994).

It is important to recognize that developing creativity ability is not a quick activity, but an arduous undertaking (Donnelly, 2004; Ramocki, 1994; Van Der Veen, 2006). To learn the creative process in a sustainable way in the workplace involves mastering new thinking skills, and practicing those skills through nurtured and managed learning experiences (Basadur, 1997). To foster the creative process in the workplace from a constructivist, experiential perspective is to adopt a particular cognitive problem-solving process (e.g., Osborn-Parnes, Wallas), provide training on the process and supporting tools to selected individuals across the organization (e.g., new product development), and facilitate problem-solving ‘events’ focused on a particular business challenge in the organization (e.g., how can we increase sales revenue for XYZ product). These events typically center on a variety of divergent and convergent thinking techniques and diverse experiential stimuli designed to elicit knowledge from previous experiences in other contexts and apply them in new and different ways for the particular challenge at hand.
The learning in these events is twofold. First, learners are commonly presented with a complex, open-ended challenge (Michael, 2004). Then, learners use the tools and techniques to draw on current expertise, challenge current constructs, and utilize reflection to consider multiple perspectives, gain deeper insights, and take action (Merriam, Caffarella & Baumgartner, 2006) to solve the problem. This leads to sense making about the challenge, which enables individuals to add meaning to an experience and use that meaning to arrive at judgments that guide future actions (McArdle & Coutts, 2003) in the context of (as of yet) unknown challenges. Creative process connects experiences in one domain to the problems in another (Jaussi, Randel & Dionne, 2007). It involves understanding, interpreting, and reinterpreting experience in new ways in order to enable innovation (Cooper, 2005). The learning events themselves can involve experiential pedagogical techniques, where learners are engaged in an experience grounded in one context, and asked to bring the learning from the context back to the context of the current challenge.

Second, these events also create new experiences in which participants develop expertise (learning) of how to effectively engage with the creative process. Learners construct knowledge of how to effectively apply the creative process for themselves through direct, hands-on activities of selecting and applying different combinations of tools and techniques. The creation of solutions fosters an increased confidence in the creative process, which in turn creates sustainable energy, motivation and retained learning (Barak, 2006; Donnelly, 2004). Each person responds to the cues of innovation based on the cumulative experiences (and perceptions of experience) with creativity (Townsend, 2004). As experience increases, people have more opportunities to explore different ways to interpret that experience, through self-reflection and
through reflective discussions with others; and therefore, can develop a variety of possible lenses in which to interpret the world (Elkins, 2003; Worthington, 1994).

Teaching in the workplace involves work activities that give assistance and guidance to others (Nicholson & Arnold, 1991). Educational experiences are more likely to happen in situations where there are teacher-guided interactions between the person and the environment (Elias & Merriam, 2005). In experiential learning, the student is responsible for influencing the direction of the learning process and actively engaging in it. In addition, the teacher is responsible for facilitating the learning process of each learner by clarifying the purpose and goals, assembling appropriate resources, balancing both intellectual and emotional components of learning, and engaging in guided conversations that inform, but not dominate, the actions to be taken (Kearsley, 2006). The teacher can draw on examples and problems from his/her self, and from the learners in ways that draw learners into actively participating in, and enjoying, the activities involved in creative process (Michael, 2004). A constructive, experiential approach has several implications for teaching creativity as a process in the workplace. The role of the facilitator is to select appropriate events that represent the steps of the problem-solving process, facilitate the actual tools, techniques and activities associated with the step, and to help individuals both draw on multiple experiences within the event and reflect on what was learned after the event. The facilitator is positioned as an expert in the process and the tools, but the individual is central to actively driving the learning activities in applying the process and tools. The facilitator continuously establishes a supportive climate for learning and failure; clarifies the purpose of the learning event (e.g., creativity is a learning process), and typically uses questions about the process of learning to help individuals draw on past experiences, interpret new ones, and make new meaning (Boud & Miller, 1996). Because knowledge is actively constructed, the
learning event is presented as a process of discovery. The facilitator is an active partner in the experience itself, but the learning generated from the experience can vary from individual to individual. The facilitator can assist learners in describing and re-interpreting the experience, but should not consciously offer interpretations or analysis of their own (Boud, Keogh & Walker, 1985b). Feedback given by the facilitator must include both logical, deductive information as well as emotional, inductive reasoning (Michael, 2004). The facilitator must be also be cognizant of potential barriers to the process of learning without dictating a singular outcome of the learning process; as well as be prepared to help learners reflect on their learning, including unexpected expressions of emotion (Pearson & Smith, 1985). Facilitators should encourage learners to express and acknowledge emotions and feelings that were part of the experience, in order to more fully understand the meaning of that experience (Boud, Keogh & Walker, 1985b). Particularly for creativity in the workplace, many adult learners may have established (through a variety of experiential learning events) a self-described lack of creative ability (Holmes, 1990). In this case, the facilitator must help the learners engage with these feelings and thoughts both within and after the creative events, helping the learner to better identify observations of creativity, and use those observations to inform both action and self-esteem.

**Summary**

Based on the previous discussion of the literature, it is clear that there is a growing interest in the role of affect on creative work (Mumford, 2003). More recent studies that focus on creativity in the workplace involve the study of human interactions and multi-domain influences on creative achievement (Hunter, Bedell & Mumford, 2007). Amabile and colleague’s (2005) longitudinal study using employee’s daily observations of positive and negative affective influences on creative thought and behavior has offered the most substantial
insight into the role of affect on organizational creativity. As a result, it has spawned a resurgence in the study of creativity and affect (Beal et al., 2005), and has shown that affective influence on creativity is often stronger and more far-reaching than initially considered (Wood & Moreau, 2006).

How affect influences creative process, more specifically how the creative process it facilitated, offers a prime opportunity to explore a phenomenon that spans multiple disciplines. A qualitative study that helps to better describe such a complex phenomenon may shed new perspective on what is currently known about creativity in the workplace, and uncover new insights into currently unknown or unrealized relationships that exist between affect and creativity.
Chapter 3

Introduction

This study is searching to describe the essence of how the learning of creative process is facilitated, specifically influenced by affect, in the workplace. While there may be patterns or themes that may emerge, it is not assumed that elements of singular truth exist. Instead, by taking a qualitative approach of interviewing and observing how facilitators employ their craft and using a specific lens (emotion) and a specific context (creative process in the workplace), it is hoped that the richness and diversity of the data may identify new concepts that complement what is currently known about affect and experiential learning, affect and creative process, and the influence of affect on facilitator pedagogical activities. It is the fundamental acceptance of complex, multiple, and interacting realities that allow such an exploration. Therefore, to address this complexity, this study uses a basic interpretive qualitative approach. Discussed in this chapter are the epistemological reasons for selecting a qualitative research paradigm and why such a design is appropriate for this study; the background of the researcher and the influential role that it plays, and the details of how the data was collected and analyzed.

Research Paradigm

Selection of an appropriate research approach involves consideration of the purpose of the study, the nature of the theoretical and conceptual frameworks involved, and the epistemological beliefs held by the researcher (Hathaway, 1995). In order to describe the research paradigm selected for this study, this section is organized by explaining the basic tenets and assumptions of qualitative, interpretive research, followed by a summary of why such a paradigm is most appropriate for the concepts involved in this study.
Basic Tenets of Qualitative, Interpretive Research

Qualitative research methods are best used to gain multiple perspectives and in-depth understanding about social and cultural phenomena (Myers, 2009), particularly involving phenomena that are complex and difficult to describe quantitatively (Hoepfl, 1997). Qualitative research contains several epistemological assumptions. At the core is a belief that meaning is established by the individual, reality is constructed, and fact cannot be separated from individual subjectivity and perspective (Myers, 2009). Research in the interpretive paradigm is focused on describing the detail of a specific situation or phenomenon as it emerges, and attempts to understand that phenomena through the variety of meaning that people assign to it (Hathaway, 1995; Myers, 2009). It is assumed that reality can only be accessed through language and shared meaning (Myers, 2009); and that knowledge evolves from conscious description and interpretation of human experience (Hathaway, 1995).

Qualitative research is also grounded in naturalistic inquiry, which aims at studying real world situations in which the researcher collects data via a non-manipulative approach, and interprets phenomena in terms of the meanings that people bring to them (Denzin & Lincoln, 2005; Patton, 2002). Naturalistic inquiry encourages researcher interaction and observation within the context of the phenomenon under study (Flowerday & Schraw, 2000; Foran, 2005). Interpretive research is concerned with exploring how people make sense of what they do in certain situations by directly studying them within the context of the natural settings of the phenomena (Rossman & Rallis, 2003). Such methods focus on the detailed nuances of the situation, using various forms of subjective text as descriptive data that is analyzed (Myers, 2009). This text is rich in context-specific meaning (Hoepfl, 1997), and is interpreted by the individuals involved in the situation (Myers, 2009).
In order to capture this data, researchers adopt an emergent (non pre-determined) design (Hoepfl, 1997) that emphasizes the dynamic formulation of questions and talking with a purposeful sample of people in order to deepen the understanding of the meaning that is shared (Hathaway, 1995; Myers, 2009; Patton, 2002). The role of the researcher in this approach is to observe, describe and interpret the settings and the responses as they are shared (Hoepfl, 1997). Especially relevant for this study is to acknowledge that the complete description of how affect influences the facilitation of creative process can include all methods of perception, including seeing, hearing, thinking, feeling, imagining and evaluating (Roberts, 2000). Such expressive, detailed descriptions of creativity tend to focus on the particular, sometimes idiosyncratic and sometimes pervasive, activities and text that highlight the uniqueness of the context (Hathaway, 1995; Hoepfl, 1997). Furthermore, these descriptions must be solicited from a purposeful sample of participants who are well-positioned to provide rich and useful descriptions of the phenomenon (Patton, 2002). For this study, individuals who have at least two years of experience in facilitating the learning of creative process in a workplace setting should be able to draw on and describe a variety of ample experiences that demonstrate a broad and thorough understanding of the complexities involved.

The interpretive paradigm recognizes that the researcher is the primary data collection tool, and that the best way to ensure trustworthiness of the data collected is for the researcher to experience the phenomenon in the same context as the participants (Hathaway, 1995; Hoepfl, 1997). Data is collected, integrated into themes and analyzed using inductive, not deductive, reasoning (Hathaway, 1995; Hoepfl, 1997; Myers, 2009). The trustworthiness of the results depend on plausible and reasonable representation of the data collected from the perspective of the participants, and analyzed with full disclosure of the biases inherent in the researcher.
Meaning may be generalized into patterns and themes, but not necessarily positioned as universal truth for an entire population (Myers, 2009).

** Appropriateness of Selecting Qualitative Research for This Study**

Due to the nature of the key concepts involved in this study (facilitating experiential learning, affect, and creative process), qualitative research is well-suited to explore facilitation of the learning of creative process through affect because the phenomenon itself is complex, difficult to measure, and based on subjective meaning making interactions. Qualitative research methods are designed to help obtain insights and meaning of the experiences of specific groups of individuals, which under certain conditions can shed new perspective and understanding (Leech & Onwuegbuzie, 2007). In order to understand the variety of meaning making that exists within this phenomenon of facilitating the learning of creative process with affect, it is critical to engage with the participants to share and describe both what is currently known, and observe what happens as new experiences are had (Hammond & Howarth, 1991). For example, experiential learning can involve a variety of different pedagogical approaches and techniques (Wiersma, 2008), including the reinforcement of a working vocabulary of creative terms, application of creative thinking techniques, reflection on and developing one’s own creative process, reflecting on and appreciating the creative process of others, and experimenting with creative attitudes such as persistence, risk-taking, independence and curiosity (Mildrum, 2000).

How, why and when these kinds of approaches exist cannot be separated from the context within which they emerge or the facilitator who is helping to foster them; and as such, require explicit and deep description in order to better understand. Feelings and emotions in particular are difficult to adequately describe, and by assuming the inseparability of person and context by using qualitative research should better convey and separate the subjective nuances involved in
understanding the role of emotion in the facilitation process; in the creative process, and in the experiential learning process (Coleman, 1994; Wood, 1992).

In addition, perception and interpretation of reality is assumed to happen both psychologically and emotionally, and occurs simultaneously rather than sequentially to produce a unified meaning (Denzin & Lincoln, 2005). Furthermore, qualitative research allows for subjective interpretation and expression concerning a specific occurring phenomenon (Myers, 2009); and can be especially useful when studying affect. Interpretation and expression of imaginative, emotional and feeling experiences are notoriously problematic (Trotman, 2006); which may be why emotions experienced while teaching is a research area that is currently lacking (Coleman, 1994). Affect is a concept that loses some of its power no matter how it is operationally defined solely using words. Affect, by its very nature, involves more than thought and words, and contributes to making it difficult to explain, describe, explore and predict. While studies have attempted to quantify affect, almost all acknowledge a myriad of variables that could impact such a technique. Conducting a study that allows the participants to articulate the emotional aspects of how they facilitate in their own words may help future studies better define the concept of affect and emotion in a more integrative way. Emotions involve multiple situational and individually-variable processes, and the study of the relationships involved in the experience of emotion can provide a rich understanding of the phenomenon (Mauss & Robinson, 2009). Feelings and emotion provide a guide for identifying experiences of significance, and can indicate a powerful determinant of learning (Boud & Miller, 1996).

**Naturalistic inquiry.**

In regards to creative process, naturalistic inquiry is a form of qualitative research that is concerned with observing a phenomenon in its natural (real-world) state and involves a
commitment to allow the phenomenon to emerge without manipulation or constraint (Patton, 2002). The context of creative process involves a series of guiding principles, relying on the dynamic interaction of multiple perspectives considered mundane in one context and novel in another. As such, each experiential learning event involves a unique set of perspectives at any given time, that cannot be completely replicated. Therefore, observing the creative process in action, including the facilitation involved in the learning event associated with it, involves capturing in rich detail the setting, activities and interactions that exist. Most studies of creativity as a process are positivistic in nature; that is, they try to identify the single, most accurate truth about the neurobiological, mental and behavioral activities that signal creative process. Yet, breaking down the complex phenomenon of creativity into singular, discrete steps to identify recurring patterns can be viewed as paradoxical; creativity by its very nature is about disrupting patterns, and bringing individual experiences, perspectives, and interpretations of the world to bear in addressing some particular challenge. At best, creativity can involve a number of key principles that may serve as guideposts in stimulating creative activity, and include a wide variety of both acceptable approaches and outcomes. Qualitative research can provide enhanced details that help describe this variety.

*Experiential learning.*

As a final piece of this study’s conceptual framework, experiential learning can potentially be explained by a wide variety of theoretical models, all of which are serviced by many different types of research studies. This study is not about creating a new model of viewing experiential learning, but rather in exploring the role that the facilitator plays in supporting the learning process using a particular lens (affect), involving a specific context (creative process), practiced in a specific setting (workplace). What it takes to be a good
facilitator is a mix of professional knowledge and skills, as well as an ability to connect and build relationships with the learners themselves (McNess, Broadfoot & Osborn, 2003). A facilitator needs to pay attention to the complex mix of feelings, thoughts, actions and memories that both make him/her the facilitator he/she is, and the learners who they are (Thomas, 2008). Most current research involving experiential learning is focused on the learning process itself, specifically from the perspective of the individual who is learning. Very little research has been done focused specifically on the role of the facilitator, who by definition has some type of influence on the learning process. Yet in practice (specifically in the workplace), facilitation is a role that is identified and valued in various industries, as companies do hire full time and contract/consultant employees to perform it. In order to better understand this influence, more needs to be known about how current facilitators actually perform their role. Given the diversity of facilitative approaches, many of which can be considered successful, it is assumed that there are multiple ways to perform the facilitator role. How one facilitates can be learned in different ways (Maaranen, Kynaslahti & Krokfors, 2008). Given the nature of experiential learning, each learner and each facilitator will bring unique meaning making structures to an interactive learning experience; therefore, multiple versions of what happened during those experiences, and their outcomes, will exist.

Through experience, facilitators acquire practical skills and knowledge of how to best facilitate; including how to plan, how to diagnose and take action, and how to establish interpersonal (emotional) relationships with the learners in the activity (Coleman, 1994; Thomas, 2008). Over the course of time, a facilitator establishes his/her own style of facilitation that reflects his/her own views of the world, an accumulation and integration of a variety of different (sometimes challenging) learning interactions, and the nature of the context (including content)
in which the learning event exists. That is, facilitators establish habits of choosing ways to think, feel, see, and believe (Gow, 2000) which are used to dynamically and continuously reconcile rational educational decisions with intuitive justification (Maaranen, Kynaslahti & Krokfors, 2008). Using a qualitative research paradigm allows for rich exploration of the variety of subjective experiences involved in establishing and implementing the variety of affective components of facilitation.

As described, a qualitative paradigm is viable for each of the individual key constructs in this study. When these concepts are combined, it also emerges as an appropriate choice. Understanding the role of affect in facilitating constructivist experiential learning events for creative process involves unique and complex sets of interactions. Facilitators are tasked with integrating theory and practice of all three concepts in order to identify, select and take action (Maaranen, Kynaslahti & Krokfors, 2008) that supports the desired learning outcomes of both the sponsoring organization and each individual learner in the event. This activity is constructive, continuous, and constantly interacting with the experiences of the facilitator within each learning event. The dynamic nature of making meaning and using that to inform and interpret actions can be best captured through qualitative data. Being mindful of capturing the details of what happened can help identify various patterns and unique distinctions in facilitator knowledge, experience, styles, personal reflection and other areas not yet known prior to the study (Patton, 2002). It is less about identifying measurable and universal facts (truth), and more about essence and relative meaning (Moustakas, 1994). As such, qualitative research requires the researcher to engage with each participant directly in the context of the phenomenon under study in order to collect detailed descriptions, usually with direct quotations, of individual perspectives and meaning making (Patton, 2002). To best detail the presence of emotion, the relationships
involved with facilitation, and the dynamic openness of creative process, qualitative research provides the best option for this study.

**Background of the Researcher**

In any qualitative study, the role of the researcher is influential in all aspects of the design. The researcher is the primary data collection tool, and is subjective in the interpretation of the analysis and results of the data collected. Consequently, no two researchers can conduct a qualitative study in the same way. Observation of the phenomenon, interpretation of the data collected, and analysis of the emerging themes are all influenced by the meaning and experience held by the researcher (Hathaway, 1995). Therefore, it is important to acknowledge the experiential, epistemological and personal interest influences that bring this study to bear.

As the researcher for this study, I have a wealth of experience with the key concepts involved in this study. I have been involved in managing and facilitating a wide-variety of training solutions in large, global companies for over 17 years. Hence, I have a rather strong grasp of the challenges involved in facilitation, and a vast amount of experience in identifying and evaluating ‘good’ and ‘not-so-good’ facilitation. Formally trained with Masters degrees in both Instructional Systems Design and Business Administration, my early work was grounded in behaviorism and positivism and my expertise using these perspectives have been recognized with awards from highly regarded professional organizations. However, at some point in my career, a shift from a purely behavioral perspective was made. It just so happened that this shift coincided with my engagement in learning the creative process, and in helping others learn this process.

Through four years of practice in understanding, designing and facilitating creativity programs, and another 5 years of academic study of creativity, innovation and adult education literature, I have shifted my perspective on learning and creativity, particularly focused on the
influence of affect. These events have educated me on what creative process is (and is not), and in identifying specific challenges in programs that help people learn creative process.

Consequently, my concept of creativity in the workplace does not assume that everyone can be creative in the same way or at the same level; but it does assume that everyone can be creative in some way or some level, and that creativity can be learned, modeled and developed through practice (Mildrum, 2000). It is believed that creative workplace production is both the effort of individuals and teams, and the subsequent outcomes and learning of their interactive work efforts. This implies that creativity is the active cognitive and affective engagement with the creative process that may or may not result in immediate, tangible and innovative solutions. This kind of ‘ordinary’ creativity is something that each and every individual can nurture within one’s self (Henshon, 2006). It is not built on single moments of illumination or product; instead it is developed gradually over time and through incremental changes in interpreting and re-interpreting the world. Consequently, this process can be learned; and facilitators can play a key role in helping others learn it. Furthermore, my practical experience has shown that affect (specifically emotion) has a relationship with both creative process and experiential learning. Through reflection on my own learning experiences as a facilitator in the workplace, I have been compelled to explore whether patterns exist with others who play similar roles.

**Participant Selection**

In qualitative research, the richness of the primary source data in regards to describing the phenomenon is key (Myers, 2009). Issues to be considered in selecting participants for a qualitative study include selecting people who have an intimate, first-hand knowledge of the situation, how to gain access to those people and if possible the situation itself, and how many
Participants are needed to provide adequate and meaningful data (Krathwohl & Smith, 2005; Patton, 2002).

Finding participants who meet the criteria for this study was a purposeful combination of criterion-based and snowball sampling methods. A criterion-based method is intended to provide a filter of important criteria that most likely identify the best cases or participants for study; while a snowball sampling method is aimed at leveraging those who already have rich information about a phenomenon to help identify other potential participants (Patton, 2002). This study used a combination of these methods in order to provide a balance between the disadvantages and advantages of each method itself. Practically speaking, a blanket call for participants was sent to a variety of electronic forums known by the researcher as places where the most appropriate participants may visit. In order to provide an appropriate filter, a selection criteria checklist was provided along with an advertisement. In addition, each of the known qualified facilitators that are a part of this researcher’s professional network were asked to forward the advertisement and criteria to their most appropriate network of contacts. Finally, as participants are accepted into the study, they will be asked to forward the advertisement and criteria to any contacts they may recommend from their networks. Participants acquired through this snowball technique had a more informed sense of who might provide rich data, and referral by known and trusted sources seemed to be (in some cases) just the informal endorsement needed to encourage potential participants to accept the invitation and be willing to talk in detail with the researcher (Baker, 2006).

In order to obtain an in-depth understanding of how facilitators use emotion in the learning of creative process in the workplace, it was important to identify and engage the most appropriate participants for the study. Selection criteria for this study were grounded in practical
representations of the key conceptual frameworks involved. See Appendix A for the guide that was used. First, in order to be able to provide rich descriptions of how to facilitate the learning of creative process across a variety of different situations, participants needed have at least two years of specifically facilitating such events specifically in a workplace context (not academic institution or conference event). It was also significant that the approach to creativity that is taught is framed as a creative process. It was not critical to be aligned with a specific creative process, as most creative processes follow the same general structure. As this study was primarily focused on the affective relationships involved in the facilitation of learning of creativity, participants needed to have a conscious belief that affect (specifically emotions) were a key component of the creative process, and that it served as the primary content for the experiential learning events.

Next, it was important that the facilitator be involved with teaching small or large groups that provided multiple opportunities for the sharing of different perspectives, interaction, experimentation, feedback and challenging groupthink (Hoyrup & Elkjaer, 2006), all of which are central to creative process and learning. This also included learning events of at least two hours, where bonding between learners can foster more authentic expression of emotion. As the facilitator is the key to providing data and helping to ensure the trustworthiness of the data analysis, it was important that the facilitator was also willing to allow the researcher to observe an event, and work with the researcher to schedule appropriate time for both the data collection and analysis.

The intention was to accept all participants who have answered yes to each of the criterion listed, until an appropriate quota of participants was reached. There is no clear-cut decision tree for determining an appropriate quota for a qualitative research study; instead, it
relies on cogent and logical arguments that are negotiated between the researcher and his/her peer reviewers in reasonably ensuring the capture of a rich variety of situations (Myers, 2009; Patton, 2002). Based on this researcher’s review of literature (discussed in Chapter 2), a reasonable recommended sample size for this study is between 8-12 participants. Final total sample size was influenced by number of participants who met the criteria; feasibility of the researcher to arrange for interviews and observations, cost of travel and remuneration in gathering data, and allowance for any incomplete interviews/observations or withdrawn participants.

**Data Collection**

The quality of data obtained in qualitative research is primarily dependent on the ability of the researcher to ask questions and make observations that elicit detailed descriptions of the phenomenon (Patton, 2002). As the primary data collection tool in a qualitative, interpretive study, the researcher needs to engage with real people in real organizations (Myers, 2002) using open-ended questions that allow variability in individual responses (Hoepfl, 1997). Qualitative, interpretive data collection is an emergent process that involves constant change in meaning due to the constructive properties of knowledge and learning (Patton, 2002). As such, the best choice for naturalistic inquiry data collection is the researcher, as he/she is able to respond to environmental cues, interact with the situation, collect and perceive information holistically and at multiple levels simultaneously, provide feedback, and explore atypical and unexpected responses (Hoepfl, 1997).

As reality is something that is actively constructed and therefore inherently subjective, qualitative data collection is a process of collecting representations of reality through the rigor, breadths, complexity, richness and depth of appropriate triangulation (Denzin & Lincoln, 2005).
Multiple qualitative data collection methods are employed to ensure triangulation of data, which helps to obtain a more complete picture of the phenomenon (Myers, 2009) as well as an audit trail of what was learned (Krathwohl & Smith, 2005). Practically speaking, the methods chosen for this study were an initial 45-minute telephone (or face-to-face) interview of the facilitator (Interview 1), followed by an observation of the facilitator in a learning event setting (Observation) of two hours, and ending with a follow-up 60-minute face-to-face (or telephone depending on practical availability) interview (Interview 2) with the facilitator. As related to the purpose of this study, data collection methods were aligned with the constructive, experiential learning process; particularly the role that a facilitator plays in supporting the process. Interview 1 primarily focused on collecting information, assumptions and beliefs currently held by the facilitator based on years of experience. The Observation data collection offered an opportunity for the researcher to gather information about the phenomenon in action, as well as created a shared experience with the facilitator. The knowledge and meaning gained from the observation helped to focus Interview 2, where the researcher used the data from Interview 1 and the Observation as resources to help the facilitator reflect on the knowledge held, and provide even deeper insights, clarifications and additional meaning. It was also hoped that the multiple engagement points between the researcher and the facilitator would increase the level of comfort and trust in order to increase the honest disclosure of critical information (Myers, 2009). Use of these methods of data collection was consistent with methods used in other qualitative studies of how teachers teach, learn to teach, and the emotional state of being a teacher (e.g., Coleman, 1994; Wiersma, 2008).
Description of the Interviews

Interviews are intended to capture personal accounts that better inform the topic under study (Perakyla, 2005). Interviews are also used to capture personal perspectives and detailed descriptions of personal experiences and meanings created from those experiences, including direct quotations and the subject’s own language (Myers, 2009; Patton, 2002). As such, interviews are driven by open ended questions that require deeper thinking about what and how meaning was constructed (Wiersma, 2008). This approach is important for this study, as the nature of emotion and the approach to facilitation are both individual activities, and it is important to capture the expression and meaning of those activities using the language of the participants themselves. As interview data was analyzed through the interpretation of the researcher, the data itself was collected as true to the language used by the participant as possible, without conscious judgment or interpretation by the researcher. The role of the researcher during interviews is to listen, prompt, encourage and direct participants to share, in order to truly capture the participants perspective (Myers, 2009; Patton, 2002). As important as the text shared in the interview; and due to the affective nature of this study, the researcher also considered collecting data regarding nonverbal communication, such as proxemic (interpersonal space), chronemic (pacing of speech and length of silence), kinesic (body movements/posture), and paralinguistic (variations of volume, pitch and quality of voice (Fontana & Frey, 2005).

Interview 1.

Interview 1 was primarily concerned with uncovering existing knowledge, meaning and beliefs held by the facilitator in regards to experiential learning, creative process and affect. Typical of qualitative studies, the question set were geared to collect a combination of background information, experiential and behavioral descriptions, opinions, feelings, and factual
knowledge data (Patton, 2002). Consistent with many qualitative studies conducted in the context of business, Interview 1 was structured and Interview 2 was semi-structured; which helps to ensure key concepts are addressed in detail and data collected has some consistency, while also allowing for appropriate improvisation to explore specific situations and concepts that emerge (Myers, 2009). Structured interviewing involves the researcher asking each study participant the same series of pre-established questions (Fontana & Frey, 2005). See Appendix B for the specific questions used in Interview 1 for this study.

Driving the structure of the interview questions were the assumptions that meaning lies in the inter-relationship of experience and learning (Massar, 1972), and what current meaning and experience that the participant brings to an event is essential to understanding the meaning that emerges (Boud, Keogh & Walker, 1985b). The participants in this study were facilitators, and as such, follow a typical pattern of three facilitation stages: preparation, engagement in an activity, and processing the meaning of what was experienced (Boud, Keogh & Walker, 1985a). Interview 1 had questions that align primarily with the preparatory stage, while the Observation aligned primarily with the engagement in the observed activities and Interview 2 focused on meaning that had emerged as a result of further reflection. Assuming that thinking and feeling are connected, and that real learning occurs when we consciously explore both (a) how we feel about what we think and (b) what we think about how we feel (Massar, 1972), open-ended questions existed across both domains of knowledge.

Questions concerning the preparatory stage were focused on clarifying the current beliefs of the facilitator, intentional aims and purposeful structure/activities involved in conducting learning events, and the resources they brought to support the anticipated learning demands from the students (Boud, Keogh & Walker, 1985a). Also included were questions regarding the
experience of emotion by the facilitator during the preparation stage, including anticipated emotions they expected to be displayed by the students during the learning event (Boud, Keogh & Walker, 1985a). In particular, there were questions focused on the facilitator’s feeling of competence and confidence in the areas of facilitation and creative process, as well as how emotion was defined, observed and interpreted by each individual facilitator. As each learning event involved inherent challenges that are dynamically addressed by the facilitator in real-time, the sharing of descriptions of worst, best and typical situations (Brookfield, 1996) established some insight into the experiential meaning of emotion in the teaching of creative process that exists within each facilitator. Finally, there were also basic demographic information that is collected in order to better understand and clarify potential inherent influences on individual perspective and meaning making.

**Interview 2.**

Interview 2 occurred after the observation and was conducted similar to Interview 1; except that it was semi-structured and questions focused on changes, enhancements, and additional meaning that had emerged since Interview 1. As Interview 1 was focused on preparation, Interview 2 was focused on reflection using the data gathered from Interview 1 and the Observation as stimulus for further reflection. As such, the focus of the questions were in regards to the recollection of facilitators of the experience, description of what happened, what was learned, and what emotions were present in order to share a more complete and conscious description of the meaning made (Boud, Keogh & Walker, 1985a). The meaning in this case aligned directly with the purpose of the study regarding how facilitators make meaning of how emotions influence the teaching and learning of creative process. This returning to the shared experiences of Interview 1 and the Observation in order to recognize feelings that enabled and
obstructed learning directly aligned with one of the key principles in experiential learning (Boud, Keogh & Walker, 1985b). As self-reports of emotional experiences are more complete and detailed when captured within close proximity of the actual experience (Mauss & Robinson, 2009), Interview 2 data was ideally collected the same day as the Observation. However, realistic limitations necessitated some flexibility in this timeframe, and most Interview 2 data was collected within 2 weeks after the Observation.

Interview 2 began by revisiting and clarifying any responses from Interview 1. Next, highlights from the Observation data were shared by the researcher with the facilitator, along with questions guided by typical reflection questions used in constructive, experiential learning, particularly in observing emotion in both self and others during the experience (Watson & Vaidya, 2003). Refer to Attachment D – Interview 2 Guide for more detail.

**Description of the Observation**

Observations are used to capture first hand, detailed descriptions of the setting, people, situation, interactions, activities and patterns of behavior involved in the phenomenon in its natural state by watching, with little to no interaction by the researcher (Baker, 2006; Myers, 2009). Observational descriptions should be factual, accurate and thorough in order to better recognize, understand and interpret phenomenon that may cursory be overlooked or assumed (Patton, 2002). As such, observations may include a combination of techniques to collect data across all five senses (Baker, 2006). As with participant selection criteria, data collection methods can fall along a continuum from structured, to semi-structured, to non-structured, and the decision as to the level of structure is based on peer-review and logical acceptance of appropriateness for the study itself.
The purpose of an observation data collection technique is to observe the phenomenon in situ and without direct participation of the researcher (Myers, 2009). During the observation activity, the primary role of the researcher is to remain detached enough to collect and analyze data that is relevant to the purpose of the study, but to also ensure that he/she is hearing entire conversations and grasping the full significance of the information being exchanged (Baker, 2006). As such, the observation data collection component of this study was focused on observing the actual facilitation of a learning event focused on creative process with a group of workplace employees. The researcher did not participate in the activities, and entered the room positioned as a member of the facilitator’s staff who is focused on observing the learning event in order to improve the overall quality of the experience. As such, the researcher was acknowledged as an observer of the facilitator in the room; not an evaluator of the learners themselves. The observations took place wherever and whenever the learning event was scheduled, which included onsite conference rooms, off site locations, facilitator-owned locations, etc. Consistent with Angrosino (2005), observational data included open ended descriptions, field notes and the use of a structured format (e.g., form, checklist). In order to help with focus, efficiency and quality of data collected during the observation, an Observation Data Collection Guide (Appendix C) was created for this study. Multiple sheets were used as needed.

The goal was to observe how emotion emerges in the event, and characterizing and measuring emotion in others is one of the most challenging problems in science (Mauss & Robinson, 2009). Consistent with the interpretive paradigm and the nature of constructive learning, while discrete emotions may have a unique profile of experience, physiology and behavior, they can be interpreted differently by both the individual expressing them as well as the individuals observing them (Mauss & Robinson, 2009). Emotions are brief experiences of
feeling (lasting a few seconds) that consist of multiple modal systems, including physiological, expressive, behavioral and subjective components (Watson & Vaidya, 2003). As emotion may indicate some type of significance in the learning process (Boud & Miller, 1996), the researcher paid close attention to expressions and behaviors aligned with emotion. As such, the researcher (as the data collection tool) tried to be conscious of the existing attitudes, beliefs and expectations that may filter and screen what is experienced and interpreted (Wood, 1992). Therefore, observation notes were separated into two distinct pieces: direct observations of what was happening, along with any commentary that included researcher interpretation. In the area of direct observation of emotion, both facilitator and participant expression of emotion was captured (e.g., That’s exciting! I am not happy., etc.), as well as descriptions of key behavioral indicators: vocal changes in pitch and amplitude, facial expressions, and non-verbal, whole-body behavior (Mauss & Robinson, 2009). As mentioned, data was collected about what was happening, and was used during Interview 2 to discuss potential relationships (as interpreted by the facilitators) between expressed emotion and learning activities (intentional or not) involved in learning the creative process.

Related specifically to how emotions influence to the facilitation of the learning of creative process, details concerning the type, nature and structure of learning activities were captured through notes in the observation form. These included facilitator actions to set expectations for the activity, how the activity is implemented, actions taken by the students and the facilitator during the activity, and how the facilitator helped students reflect on the activity. In order to focus on facilitation skills instead of traditional teaching practices, particular attention was made regarding how and when facilitators intentionally listened, built relationships through understanding and perspective sharing, and transferred control to students by providing resources
and assistance (Main, 1985). Well-facilitated sessions tend to allow for facilitator silence, where students may lead the discussion and ask questions of others (Knights, 1985). By gradually shifting the control of the learning process, facilitators demonstrate trust and confidence, which helps to build relationships (Johnson, 1996; Pearson & Smith, 1985). Another characteristic of facilitation is a focus on ensuring to debrief students and allow them time and support for reflection (Pearson & Smith, 1985). During this reflection, facilitators help the student describe and articulate a total reflection of what students think, do and feel both during and after the completion of the activity by listening without sharing interpretations or analysis (Boud, Keogh & Walker, 1985b).

It is also important to note how the data from the observations was used in the analysis for this study. The researcher conducted the first interview and reviewed the information that was shared. Then, using the established Observation Data Collection Guide as a general structure and starting point, the researcher identified specific areas unique to the individual facilitator to observe in relation to the discussion during Interview 1. The researcher then reviewed notes from both Interview 1 and the Observation to help identify areas and concepts that needed to be further explained or addressed. In essence, the Observation helped the researcher better understand comments and concepts mentioned in Interview 1, and identify actions and activities in the Observation that needed to be further explored and explained during Interview 2. The intent of positioning the Observation in this manner was to obtain more rich, explicit and detailed discussions of creativity, learning and affect in practice.

**Additional Considerations**

There are several other considerations of which the researcher was mindful in collecting data for a qualitative research study; including the process for informed consent, compensation
for participants in the study, and researcher’s ability to conduct interviews and observations that produce trustworthy data (Myers, 2009).

Informed consent is a formal disclosure and acknowledgement that participants are engaging in a research study; and that both participants and the researcher will abide by the constraints of the study design, including any ethical considerations. For this study, informed consent was captured through the appropriate documentation required by the sponsoring academic institution for this dissertation study, and primarily included the facilitators themselves and any appropriate client organization who was paying his/her salary. It was debated as to whether to include external client organizations that the facilitators support (e.g., if the facilitator is an external consultant) as well as the students in the observed learning events; however, since this study is not focused or centralized on the students or organizations themselves, and none of the data captured will be attributed to them, it was suggested that this extension not be needed. If it was needed, then it would have placed tremendous strain on finding enough willing participants in the study. It was also suggested that the researcher be positioned as a member of the facilitation support team in order to blend into the background of the learning event and put less influence on the true phenomenon from a student perspective. While the interviews were audio taped for accurate data capture and analysis (Myers, 2009), the observations were not electronically (i.e., video or audio) recorded. While it would have been ideal to be able to capture this information electronically in order to better ensure complete detail is captured, and to specifically enhance the reflection process during Interview 2, the legal realities of the business world restrict sharing such information and it was not feasible to acquire such permission.
From a compensation perspective, all time in business is equated with money. Absent of funding from the sponsoring organization, remuneration offered by the researcher was personally substantiated. While the true value of the time invested by the study participants could not be reasonably compensated by the researcher, a small token of appreciation was made. In addition to receiving a final electronic (.pdf) copy of the study itself, a small meal (lunch or dinner) and/or a $50 American Express gift card was be offered to those who compete all phases of the study.

Finally, a researcher using qualitative methods needs to acknowledge his/her own skills and abilities in capturing meaningful data. Both interviews and observations require the researcher to have adept social skills in order to establish a relationship that brings forth rich and detailed information (Myers, 2009). Researchers need to focus on seeking understanding through text, and show openness, sensitivity, respect, awareness and responsiveness throughout the entire data collection process (Patton, 2002). This is especially pertinent when studying facilitation of the learning process with emotion, as researchers only have access to the thoughts and feelings that learning event facilitators and participants choose to reveal (Boud, Keogh & Walker, 1985a). Asking qualitative types of questions assume that participants are conscious of situations and the details surrounding the situation are knowable (Patton, 2002). Yet, individuals may not be able to give full explanations of their thoughts, feelings and actions; all they can do is share what they have done and why (Denzin & Lincoln, 2005). As such, the artificiality of the interview and ambiguity of language can influence the analysis and interpretation of results (Myers, 2009). Researchers using qualitative methods need to take steps to ensure he/she has the skills to build an effective relationship with study participants, while also gathering data consistent with the purpose of the study itself. Examples of issues to consider in qualitative data
collection are having access to the participants and setting, understanding the language and culture of the participants in the study, and gaining trust and rapport in order collect rich data (Fontana & Frey, 2005). Based on the background and facilitation skills of this researcher shared earlier in this chapter, concerns in this area should have been sufficiently mitigated.

**Participants Selected for this Study**

Between June, 2010 and October, 2011, a total of 46 potential participants responded to the combination of advertisements and referrals. Out of those 46, 13 participants were successfully vetted through the selection criteria. Each of those 13 participants completed interview 1. Due to a variety of issues, such as lack of opportunities to observe and scheduling conflicts, 8 participants were observed facilitating a learning event focused on creativity, and each of those 8 participants completed interview 2. A summary of basic participant information is presented in Table 1.

It is also important to note several other characteristics of the participants in this study. First, all participants were native English-speakers (from the United States and Canada); and all observed events were held in North America. That said, most participants had many years experience in facilitating the learning of creativity across different countries and cultures. For example, facilitators highlighted events held in China, Korea, Philippines, England, South America and continental Europe. There were several opportunities for this researcher to observe events in other countries (in person and via video conference). However, the observation of learning, creativity, and affect can easily be misinterpreted or overlooked (i.e., simply ‘missed’) within a familiar culture. Adding these additional variables were determined by this researcher to add too much potential error, and were not considered further. This decision both adds to the trustworthiness and credibility of (and limitations to) the findings of this study.
Second, facilitators in this study worked in a variety of different industries and company sizes. For example, facilitators who were internal employees (e.g., company trainers, managers) worked in the financial, commercial software, manufacturing, marketing, and consumer products industries. Most facilitators who were currently external consultants had spent significant time in a variety of industries as an internal employee; and after becoming a consultant, worked with internal teams from a range of clients, including large, Fortune 500, international corporations as well as small, government, private and non-profit organizations. In addition, most consultants conducted ‘open-enrollment’ events, where any person in the world could sign up and pay a fee for the training.

Data points from all 13 participants were included in the analysis of results. In order to adhere to confidentiality commitments while collecting and analyzing data during this study, each participant was assigned a pseudonym. To interpret the results of this study, it is helpful to know a bit more about each participant, including the background that he or she brings to the comments shared in Chapter 4. To help with referencing this context surrounding the data presented in that chapter, a brief description of each participant is organized by his or her pseudonym (in alphabetical order) and is provided next.

**Bill**

Bill is a full time executive with a top 30 public charity. He is also a part-time entrepreneur and owner of a creativity consulting and teaching company. Bill has 10 years experience in teaching creativity in both the workplace environment and as an adjunct professor. His primary focus is on how effective communication and collaboration can unleash the power of creativity.
Charles

Charles has 17 years of working experience, with at least 10 years as an internal training consultant for large fortune 500 financial institution. He also has an additional 7 years as an external training consultant. In all, Charles has been teaching creative process in a variety of workplace and academic environments for over 10 years.

Geoff

Geoff is a trained commercial artist, with a passion for drawing and painting. He is also an author of several books on creativity, and an owner and partner of several business consulting companies. Geoff has been teaching creativity in person and online for over 20 years.

Harry

Harry is an accomplished practitioner of creativity, with over 5 years experience in new product development and brand marketing at a premier fortune 500 company. He also has 5 years experience teaching creativity at a big six consulting firm, and has been an adjunct professor at a large Midwestern United States business school focused on brand marketing and product innovation. Harry started his own creativity training company over 20 years ago, and has worked with many countries and companies (large and small) over the years.

Hillary

Hillary originally worked at an advertising agency and taught herself the creative process. She started her own consulting and training business 18 years ago, and has been serving a variety of companies since then.

Jerome

Jerome is an internal manager for new product development at a technology software company. He has been practicing creativity in the workplace for over 15 years. Jerome started
managing a project to teach creativity in the organization in 2003, and has been teaching creativity for over 5 years.

Lydia

Lydia is an experienced engineer who has been in the engineering profession since the mid-1980s. She has spent the last 6 years helping others learn creativity as an external consultant; sharing the process that she uses to help her be a more creative engineer.

Melanie

Melanie has over 30 years working experience in a variety of different roles. For the past 22 years, she has been an external consultant focused on helping others to find their own creative abilities. Melanie focuses her process on breaking through the internal barriers that hold back creative thinking and action.

Nadja

Nadja studied fine arts and artistic design for 6 years; and started her career in advertising and marketing communications. She is now an external training consultant with 15 years experience helping local and large, multi-national companies better develop creativity within their organizations.

Penelope

Penelope is a trained and experienced nurse, who has been trained in several creative processes and techniques from a known creativity training consulting firm. As a member of a large hospital system, she has been part of program to revamp how healthcare is provided at hospitals, and has been teaching creativity techniques with her colleagues since 2007.
Steve

Steve is a chemical engineer who has been practicing creativity for over 25 years for a large fortune 500 company. In 1998 he became more involved in leveraging creativity for engineering product innovation, and has been teaching creativity and innovation techniques as an external consultant for more than 13 years.

Vanessa

Vanessa has been a research scientist and marketing researcher for a large fortune 500 paper-based products company for over 27 years. From 2001-2009, she facilitated creativity learning sessions for internal employees, and has spent the last 2 years as an external creativity and training consultant. Vanessa’s passion and teaching techniques include the use of photography.

Zachary

For almost 23 years, Zachary was a product development engineer, scientist and innovator with large fortune 500 company with a reputation for superior brand marketing. Since 1999, he has been responsible for researching, developing and delivering training on creative process to internal and external participants. In 2001, he started his own external consulting company in this area. Zachary also has a talent for drawing cartoons, which he uses through his creative process teaching techniques.
Table 1-1 Summary Of Basic Participant Information

<table>
<thead>
<tr>
<th>Category of information</th>
<th>Participant data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male: 54%</td>
</tr>
<tr>
<td></td>
<td>Female: 46</td>
</tr>
<tr>
<td>Job / role</td>
<td>Internal (e.g., company trainer, manager): 23%</td>
</tr>
<tr>
<td></td>
<td>External role (e.g., consultant): 77%</td>
</tr>
<tr>
<td>Years as a facilitator</td>
<td>Mean: 18.75</td>
</tr>
<tr>
<td></td>
<td>Median: 15</td>
</tr>
<tr>
<td></td>
<td>Mode: 15</td>
</tr>
<tr>
<td>Years facilitating creativity</td>
<td>Mean: 15.15</td>
</tr>
<tr>
<td></td>
<td>Median: 10</td>
</tr>
<tr>
<td></td>
<td>Mode: 10</td>
</tr>
<tr>
<td>Setting of the event that was observed</td>
<td>University classroom (e.g., Executive Ed. program): 2</td>
</tr>
<tr>
<td></td>
<td>Hotel conference room: 3</td>
</tr>
<tr>
<td></td>
<td>Corporate/private internal training room: 3</td>
</tr>
<tr>
<td>Number of participants in the event observed</td>
<td>Min: 6</td>
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<tr>
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<td>2 large sessions (50, 44); most other session between 6-15</td>
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**Data Analysis**

Data analysis is a search for meaning that is systematic and purposeful (Hatch, 2002). Qualitative data analysis requires a well-documented procedure that is disciplined, thoughtful and structured; not arbitrary (Blank, 2004). The purpose of qualitative data analysis is to help understand or interpret the phenomenon under study, including the meanings that participants surface (Leech & Onwuegbuzie, 2007). Qualitative studies have an emergent quality; that is, while the researcher is targeting a specific purpose for the study and using it to guide the data
collection and analysis, learning accumulated during the study may alter the tools and techniques used (Krathwohl & Smith, 2005). Therefore, while analyzing the data, the researcher looks for both anticipated and emergent themes (Ziebland & McPherson, 2006). To best explain the data analysis procedure for this study, this section will first detail the methods of analysis to be used, then highlight the how trustworthiness will be addressed.

Methods of Analysis

A data analysis strategy for qualitative studies involves careful review of the details and specifics of the data to uncover common patterns, themes, concerns and interrelationships that offer a meaningful description of the phenomenon under study (Blank, 2004; Patton, 2002). This strategy typically involves inductive analysis and creative synthesis that allows themes to evolve. This is typically done using coding or stories (Krathwohl & Smith, 2005), but can involve a number of different techniques depending on the type of data collected (e.g., talk, observations, documents, drawings, etc.) and the purpose of the study (Leech & Onwuegbuzie, 2006).

Two important properties of any qualitative data analysis plan is to coordinate closely with data collection to ensure rich data is collected and able to be thematically represented (Ziebland & McPherson, 2006); and that the methods of analysis are triangulated (Patton, 2002). One of the ways to triangulate data analysis results is to involve at least two types of data analysis techniques (Leech & Onwuegbuzie, 2006). As this study gathers data from interviews and observations, there is opportunity to effectively and efficiently employ at least two techniques that may help better understand how facilitators use affect to help others learn creative process. The first method is a constant comparative analysis. The second is a modified key words analysis.
Constant comparison analysis is the most commonly used technique for analyzing qualitative data (Leech & Onwuegbuzie, 2006). As constant comparative analysis was originally established for studies involving grounded theory, it has expanded its use across a variety of methodologies. It was also hoped that the use of this approach for this study could possibly allow for the results to better connect with an expanded or integrative model of creativity in the workplace. It involves breaking existing text (e.g., from interviews) into chunks which are coded with a meaningful descriptive title; that are then grouped into themes based on the similarity and connection between the codes (Leech & Onwuegbuzie, 2007). The aim of this coding is to retain the nuances that add to the richness of the data, while being consistent in the use of code headings, in order to establish meaningful themes (Ziebland & McPherson, 2006). These codes and themes can be identified prior to analysis (deductive) or allowed to emerge from the data (inductive) (Leech & Onwuegbuzie, 2007). Consistent with constructive nature of this study, an inductive approach was used (Myers, 2009). For this study, the constant comparative analysis was used to analyze the interview data that is collected. All interview data was transcribed by the researcher in order to reinforce the familiarity with the data and better inform the coding framework to be used (Ziebland & McPherson, 2006). In addition, the researcher has drawn from the conceptual frameworks guiding this study to anticipate potential codes (Ellinger & Cseh, 2007).

Key words is a data analysis technique that focuses on the use of specific words, from a simple counting of the number of times the word is used, to the context that occurs before and after the use of those words (Leech & Onwuegbuzie, 2007). This method is particularly helpful for analyzing observational data (Leech & Onwuegbuzie, 2006). From an experiential learning perspective, facilitators can only have access to the thoughts and feelings that individuals choose
to reveal and express (Boud, Keogh & Walker, 1985a). The same is true for researchers who are studying the interactions between the facilitator and learners. Therefore, using the purpose of this study as a guide, specific key phrases were highlighted as indicators that affect is consciously being engaged. In the observation of the learning sessions, the key phrase for facilitators was “How does that feel?”; and the phrase for learners was “I feel…”. Due to the varied nature of how these phrases are expressed, an allowance for varied versions was made (e.g., “What does that feel like?”; “I’m not feeling…”; etc.). Data was collected and analyzed for themes in how often these phrases were used; and in what context (how/when) they were used. The terms ‘feel’ and ‘feeling’ were also used to analyze the interview transcripts to attempt to see if there were connections between the frequency of use informs how affect may show up in the practice of the facilitator.

**Trustworthiness**

Rigor in quantitative data analysis refers to the reliability, validity and applicability of the statistical measures and analyses used. Due to the emergent and flexible nature of qualitative data analysis, those terms are not directly applicable for an interpretive paradigm (Leech & Owuegbuzie, 2006). But that does not imply that qualitative data analysis is not rigorous. Quite the contrary, it involves a variety of criteria to ensure rigor and discipline in the data analysis. These criteria are referred to as trustworthiness and can involve the use of multiple data sources, researchers, theoretical perspectives and analysis methods (Leech & Onwuegbuzie, 2007). According to Lincoln and Guba (1985), the critical criteria to address for qualitative studies include confirmability, dependability, credibility and transferability.

Confirmability refers to the idea that the data is captured objectively, grounded in the events rather than premature interpretation by the researcher (Hoepfl, 1997; Lincoln & Guba,
1985). The idea for a study begins with an interest by the researcher, and as the purpose and methodology take shape through the discourse with the relevant literature, the researcher is likely to draw preliminary ideas and conclusions which may shape the data that is captured (Ziebland & McPherson, 2006). However, one of the challenges with qualitative data analysis is that there is so much data to review (Blank, 2004), which requires some subjectivity in selecting and coding by the researcher. Pursuant to the interpretive paradigm, qualitative data is analyzed using subjectivity; therefore the focus for the researchers is to ensure balance between understanding the phenomenon and being consciously aware of his/her own interpretation (Patton, 2002). To address confirmability, this study used a thorough audit trail to capture the data as accurately as possible (Hoepfl, 1997). Interviews were recorded and transcribed word for word to ensure authenticity. Field notes from the interviews were captured separately and treated as unique data sets. Observation forms contained specific areas for notes about what was observed, and notes on the researchers interpretation of what was observed. The use of two data analysis methods: constant comparative and adapted key words, allowed for interpreting the data in a variety of ways that should have helped the researcher explore a range of contradictory perspectives for interpretation before drawing conclusions through creative synthesis (Patton, 2002).

Dependability is a criterion that concerns the quality of the data, the clarity of the data collection and analysis procedures, and the logic for selecting them (Blank, 2004; Hoepfl, 1997). To address this criterion, multiple data collection methods using multiple touch points were used (two interviews and observation). In addition, the data collection tools were structured or semi-structured, which enhanced the consistency of both the breadth and depth of the information captured. Ideally, a pilot study would have been conducted to further refine the data collection
tools; however, given the availability of potential participants, a pilot approach was not feasible. Instead, suggested minor changes to the tools were reviewed and justified with key sponsors of the study prior to immediate implementation throughout the data collection period.

Credibility is the extent of which the data captured accurately represents how and what the study participant intended, and if the themes generated in the analysis are believable within the context of the phenomenon that was experienced. In qualitative data analysis, each individual participant and each context is a unique (Patton, 2002); and therefore, there may be many different interpretations of what is believable. Researchers must attempt to ensure there is a shared meaning to the language used and accounts shared (Fontana & Frey, 2005). One of the most common ways to enhance credibility is to institute member checks, where the researcher shares codes, themes and explanations with each individual participant to verify if they accurately describe their statements and experiences (Ellinger & Cseh, 2007; Hoepfl, 1997; Leech & Onwuegbuzie, 2007). Feedback obtained from member checks can be used to enrich the analysis and interpretation of the data (Ziebland & McPherson, 2006). For this study, member checks were offered to all participants after the initial coding and generation of themes from the data, and prior to finalizing the study results.

Transferability involves the explanation of the phenomenon, and how that explanation can be generalized across multiple settings. While qualitative data analysis has to protect against oversimplification of a phenomenon and sweeping generalizations of ‘truth’ (Patton, 2002), the researcher must be able to articulate the results in such a way that allows others to determine whether the findings are applicable to a different context or situation (Hoepfl, 1997). To do so effectively requires not only the capturing of rich, descriptive raw data, but also a rich, descriptive summary of the coding, categories, themes, and results of the analyses (Blank, 2004;
Ellinger & Cseh, 2007). To ensure these characteristics for this study, selecting a purposeful sample of experienced facilitators of the creative learning process who also acknowledge the influence of affect in their practice should have provided multiple opportunities for capturing targeted insights and detailed experiences that may apply beyond the participants in the study (Ziebland & McPherson, 2006).

**Summary**

The workplace represents a large arena in which adult learning exists (Ellinger & Cseh, 2007). The workplace is also full of affect and its influences, and the creative process is no different (Amabile et al., 2005). Learning creative process in the workplace involves experiences, activities and discussions that allow students to form and express new ways of thinking, feeling and interpreting the world (Finley, 2005; Michael, 2004). In some instances, organizations turn to individuals to help facilitate this learning process. These facilitators can hold formal or informal leadership positions within the organizations; and in some cases can be external consultants who earn their living training and facilitating members of organizations in creative processes and techniques across many organizations (Puccio, Firestein, Coyle & Masucci, 2006). From an experiential learning lens, such learning is intentional, and the facilitator ensures that students are aware of what they are learning both cognitively and affectively (Boud, Keogh & Walker, 1985b).

One way to better understand how affect plays a role in how the learning of creative process in the workplace is facilitated it through a qualitative, interpretive methodology. This study used a combination of interviews with current facilitators, and observations of facilitated activities designed to support the learning of creativity, in order to collect data specifically relating to the relationships between affect, learning and creativity. Through constant
comparative analysis, the variety of perspectives, meanings and interpretations of the these relationship by the facilitators themselves helped to identify and construct themes (Leech & Ownuegbuzie, 2006) that provided a more complete description of creativity in the workplace, learning of creative process, and affect in the experiential learning process.
Chapter 4

Introduction

To better understand how facilitators use affect to help employees learn and use creative process in a meaningful way, thirteen experienced facilitators participated in this study. Eight facilitators were interviewed, observed, and then interviewed again. The remaining five facilitators were interviewed once; however, due to a variety of practical barriers (e.g., learning events were cancelled, not scheduled, or observations were not permitted by sponsors), observations were not able to be conducted. Data from all participants were used in the analysis and identification of themes that better inform the guiding research questions of this study. These questions included: how facilitators describe how they foster creativity; how facilitators view the role of affect in the teaching/learning of creative process, and how might these views on affect and fostering creativity influence their preparation and facilitative approach to fostering creativity.

There were five primary themes that emerged from the data. The first theme explores how facilitators describe creativity, and how the different aspects of creativity inform how creativity is taught. A second theme describes emotion and how emotion helps facilitators in guiding the learning process. The third theme discusses the relationships that facilitators see between creativity, emotion and learning. A fourth theme looks at the affective influences emerging from society that can help and/or hinder the learning of creativity. The final theme integrates concepts from the first four themes; introduces additional data that shows how facilitators shape the learning of creativity, and describes the various influences that affect has on how the of learning of creativity is facilitated.
Describing Creativity

In order to better understand how facilitators foster the learning of creativity, it is important to understand how facilitators describe creativity. Creativity can be described in a variety of different ways. As mentioned in Chapter 2, the definition of creativity can vary greatly depending on the context of the learning situation, and on the assumptions of the facilitator (and organization) involved. A variety of aspects related to the description of creativity have emerged from the data collected in this study. First, creativity has two essential parts. It involves imagination, which is the ability to ‘see’ and describe something different that does not yet exist in the world. It also requires an act of creation, which is producing something new stemming from what was imagined. Second, it seems as though all people are born with the ability to be creative; it is a set of capabilities that exists naturally in all human beings. Third, most participants generally see creativity as a process consisting of several typical steps; it starts with a question about the status quo and how it might be changed, then the question evolves into a problem with a clear focus, and finally involves generating ideas and selecting best solutions to address the problem. Fourth, the journey through the creative process involves an ongoing tension between several perspectives that are held by an individual at any given time. Finally, to engage in creativity seems to involve engaging a person’s ‘whole brain’; which includes both the logic of the analytical (right) brain and the serendipity of the artistic (left) brain. Each of these aspects of creativity are further explained and highlighted with examples of participant data.

Using Imagination And Taking Action To Produce Something New

One of the fundamental aspects of describing creativity is that it involves the act of producing something new and useful. This act starts with imagining something different than what currently exists. For example, Melanie, an external consultant who has focused over 22
years of her professional life helping others find their own creative abilities, states: “Creativity is a discovery of something new that wasn’t there when you started.” With a similar perspective is Harry, an accomplished practitioner and entrepreneur in the creativity training industry with over 25 years of experience, who describes creativity as: “I define creativity as coming up with new or interesting ideas”. The attribute of new also suggests that the idea or solution needs to be different than what might be considered status quo. For example, Bill (an external business consultant with 10 years experience in teaching creativity) says: “creativity in a sense is the opposite of the normal, run of the mill, expected.”

Creativity also requires action to be taken on these new ideas, as stated by Hillary, an external creativity consultant with over 18 years experience, says. “Creative process is [the act of] creation.” Furthermore, Charles, a training consultant with 15 years workplace teaching experience including 10 years of teaching creative process, says, “Creativity without action is just imagination.” Both imagination and action are needed to create, as Nadja, an external creativity consultant with 15 years experience and a background in art design, describes: “You are creating something. So you are using your imagination, you are giving it form, and you are producing something.” Action in this sense is seen by some as turning ideas into real products, as noted by Geoff, a commercial advertising artist and educator with more than 20 years business experience:

To me creativity includes the concept of a product…It’s bringing something new into the world that wasn’t there before. It’s a creation. It’s an act of creation…I think of creativity as connected to the bringing of new things to the world, the imagining of things that haven’t been imagined before and the follow through to make them.
In summary, in order for creativity to exist requires two fundamental aspects: imagination of something different, and taking action to produce something new and useful. Based on interviews with the study participants, the capability to do both of these things does seem to be innate to each human being. This characteristic is discussed next.

**Revealing Our Natural Creativity**

When asked to describe creativity, almost all participants mentioned something about each person in the world having some creative ability. They commented about how creativity is something that humans naturally engage in. That is, people seem to be born with all of the tools needed to be creative; and each person uses these abilities to constantly view and make sense of the world in new and meaningful ways. For example, Geoff explains:

I happen to think that people are just naturally creative. I mean I think it is just an expression of human nature…I think that humans are naturally creative animals…It is such a natural human activity to make stuff that people die soon after retiring because they aren’t creating anything anymore.

Similarly Harry also links creativity as a natural human activity. He states:

I think everybody knows that from a very young age to as we grow old is that it feels good for most people to create. I have a bias towards that the few people that don’t want to create are pretty much brain dead and destined to have a pretty miserable life…so I just draw a connection to that sensation, incessant yearning desire to create something.

As a practitioner and teacher of creativity, Harry further discusses the inherent nature of creativity by describing what creativity feels like:

as many people get the gift of creativity and imagination and innovative thinking that I think already exists inside them.

Even though it is an inherently natural ability present in all humans, some participants believe that some people have more creative ability than others. For example, Jerome, a manager for new product development at a technology software company who has been teaching creative process to internal employees for over 5 years and has been practicing new product development for over 15 years, says: “[Creativity] seems to be a talent…everybody will have that talent to some degree, but the really creative people seem to have that talent in abundance.”

If all people have some innate set of creative abilities, then a clear follow-on question emerges: ‘how do people use their creative abilities?’ Most study participants referred to creativity as a methodical problem-solving process; one that helps individuals draw on their own experiences and abilities in order to create something new and unique. This process is described in the next section.

**Defining Creativity As A Process**

Creativity as a process involves a series of integrated phases that help people access their imagination and take action on it. Generally-speaking, this process starts with a question about the status quo that reflects either dissatisfaction with the current reality, or hope for a different future. This question leads to defining a clear ‘problem’ to solve (i.e., an issue to solve or an opportunity to realize). After defining a problem, a variety of techniques are used to generate novel ideas and select and implement solutions that best address the problem.

For example, Vanessa, a company employee who facilitated creativity learning sessions for internal employees for 10 years and has spent the last 2 years as an external creativity consultant, expresses her description the creative process:
The creative process itself usually consists of about 3 broad phases. The first phase would be figuring out what you are working on – designing a problem according to some people. It is really getting a sense in that first part of it is [we] are really working on so that there is some agreed upon focus of what the creative session is going to be all about. The second phase usually is the ideation phase. Consisting usually of a fairly lengthy diverge and then kind of a first cut at converging; trying to get a manageable number of ideas. And then the last phase is planning for action.

Likewise, Geoff views the creative process essentially similar, but expresses through a metaphor of play. He states:

I would describe [creative process] as three fold. Like three acts in a play. There’s an opening stage where the beginning act of a play where you are kind of setting the context and getting all the players on the stage and you are getting the pieces you are kinda moving the pieces into position that you want to work with…Then you have an exploring phase where you are taking those things and you kind of tinker with them and play. Try pairing things up or matching them or grouping them or clustering them or combining them in sort of combinatorial play. Then you have a closing phase where you sort of edit and you kill certain things that just don’t feel like they are productive and you look at other pieces that you think have promise.

Not only is the creative process reflected in a series of phases, it is also seen as a cyclical (or repetitive or iterative) process that involves divergent and convergent thinking; which means that each step first involves exploring multiple possibilities (ideas or perspectives) and then culling out and selecting a best set of possibilities. For example, Zachary, a product
development engineer with 11 years experience in teaching others creative process, comments on the process he uses:

Wow, how, now model is what we called it. Its where you go through this creative phase – the Wow phase, and then you diverge, so you are diverging out and exploring a problem as broadly as you can and thinking about it in as many different perspectives as you can. And then once you kind of exhaust that model, the divergent part, you then kind of filter what you have, and we call it the how process. I mean how does this work, and how can we apply technologies… and so you go through a filtering process and assessment phase, and then you want to focus back down and we call that the now phase. And now you narrow back down to your best candidates and you say – now you know what it is, you have a wow phase, a how phase and a now phase. And it is a cycle.

**Beginning with a question.**

Creativity seems to start with recognizing that there is a problem that needs to be solved. For example, Nadja says, “I have seen quite often that creativity starts with a question. Somebody asks a compelling question – a powerful compelling question that causes people to think. To stop in their tracks and think and consider a different perspective.” Furthermore, an individual (or group of people) need to be motivated to solve that problem. For example, Geoff shares his thoughts about the importance of being inspired:

[Creativity starts with] some sort of dissatisfaction with the current state. The idea that it could be better… I think that you are more motivated to do anything if it is something you want or if it is something you strongly desire or if it is something you strongly want to stop or get rid of.
Charles supports this perspective as well, “I think you have to have a reason – you want to see a change either in yourself or other folks that are around you, so I think you have to have a reason to think differently, to think creatively.” Steve, a chemical engineer who has been practicing creativity for over 13 years, and teaching it for more than 13 years, also agrees, “[The problem] has to be geared around some kind of a problem that people really want solved.” Sometimes customer needs can emerge is from pain, as stated by Nadja: “Creativity can come from pain, especially customer pain – that can spark creativity.”

To define a problem well means to fully understand the needs of the people involved in that problem, as stated by Bill:

[Creativity involves] a deep understanding of what is needed – at an emotional level, a physical level and cognitive level. And then going into a purposeful creative process of coming up with ideas that might address that underlying need, and then putting the best of those ideas into action.

One example of how customers are involved in defining their needs through the creative process is described by Jerome, a manager for new product development who engages external customers to help determine needs:

Our creative process is a number of steps. [The] first step is to identify our focus and out of focus customers. Our second step is to go and talk to them…[about] the things that our customers might be needing, might be doing; [which involves] direct customer observation and interviewing.

**Defining the problem.**

Once a problem is identified and determined to be worth the effort to solve, then the problem needs to be more fully defined in order to start the creative process, as stated by
Vanessa, “The first phase would be figuring out what you are working on.” The work in this step involves defining what is and what is not included, as Lydia, an experienced engineer with 6 years experience in helping others learn creativity, says: “It is about defining the boundaries – what are the limitations, what is given, what is the situation here.” Defining the problem well allows for better ideas and solutions to emerge, as articulated by Charles, “It liberates my mind…[defining the problem] gives me a structured format…[that] allows me to really think differently than I usually would.” The creative problem-solving process itself serves as more of a guide that produces multiple potential outputs, rather than a prescribed set of activities. For example, Geoff illustrates:

You don’t want a process that’s going to generate the same result every time… [Creativity] is a loose process. It’s a kinda more like the structure you would see let’s say a football game has a process but it always has a different outcome.

**Generating ideas and selecting best solutions.**

The last part of the creative process in the workplace involves generating ideas based on the underlying needs that were identified; and then selecting the idea(s) that best address those needs. This step was most succinctly described by Bill, “Creative process [is] coming up with ideas that might address that underlying need, and then putting the best of those ideas into action.” In order to determine the best solutions, ideas are vetted using a variety of criteria and/or selection techniques. The selection of the ‘best’ ideas through vetting and prioritization is important, as noted by Jerome, “The key to creativity [is] to identify what you keep in and what you leave out.”

How this vetting unfolds can vary. For example, Melanie relies on her own experience, “Things start coming into patterns, and then I start seeing the relationships between things, and
then I start maybe asking more questions, or writing little paragraphs about things.” On the other hand, Penelope, a healthcare professional who has been teaching creativity techniques with her colleagues for over 5 years, uses a practical method based on collective experience of the entire problem-solving team, “When we have [everyone’s ideas] in the different buckets, we will go to each one of them and pick each idea and decide if that idea has a high impact or low impact on the outcomes.” Others use customer feedback data using a methodical testing approach, such as Jerome: “We deliberately build the prototype so that it is unclear what is going to happen next. So that we can find out what is important to the customer…what would they like to happen.”

The final part of the creative process also links to customers. This is when the best solutions are ‘put into action’ and presented to customers. As summarized by Harry: “[there is a need to] turn creative ideas into value or profit.” The output from the creative process needs to provide something new and different than typically expected by customers. Jerome describes one way this can happen:

One of the things that we try to do in our prototypes is have a delighter – have something that we do really well, better than anyone else that is a wow type thing for the customer or something they didn’t expect. We think that delighting customers instead of just delivering to their expectations is important. If you deliver to their expectations – great, they’ll buy it. But they won’t tell their friends about it. If you wow them, then they’ll tell their friends about it and you will sell 3 copies instead of one.

As discussed in this section, creativity seems to be a systematic and methodical process that people have the natural capability to follow. While the specific steps in the process can vary from context to context, there is a typical flow of identifying needs, generating ideas, selecting best solutions, and packaging those best solutions into something that can be put into action.
While this process seems rather straightforward, engaging in the process does involve an ongoing tension. This tension, also called the ‘creative struggle’ is described next.

**Engaging In The Creative Struggle**

As discussed previously, creativity is about using inspiration to create something new that didn’t previously exist. To create this kind of change this requires holding at least two perspectives at any single time: one that can understand and describe what currently exists and another that can understand and describe a different potential future. The process of understanding and reconciling these two perspectives creates a tension that can be difficult to sustain, as Geoff explains:

> If there isn’t tension between two things it’s hard to be creative. You have to have the tension between what you have and what you want the kind of whole vision you have in your mind of what you are trying to achieve.

This tension seems to involve finding connections that are not easily apparent, as described by Vanessa, “Creative tension could be a struggle. And interestingly enough that oftentimes happens because the forces are in opposition, that actually – that struggle, that opposition – often times opens up an entirely new pathway.” Navigating through these oppositional forces can elicit intellectual and emotional confusion, which isn’t necessarily a bad thing. Melanie believes that this confusion during the creative struggle is an important part of the creative process:

> If you aren’t confused then you think you know something, and you are not going to learn anything, so the first thing we have to do is get you confused…on the first day, I spend teaching them to unravel how they do what they do, what all their underlying unconscious beliefs, values, biases are, so they can begin to understand the choices they might need to make if they are going to bring in something new.
Melanie’s comments suggest that during times of creative tension, people spend energy first trying to rationalize their way to a solution. However, feelings of confusion and frustration can influence thought processes. In order to stay focused and work through the creative process requires emotional flexibility and balance in combining rational and irrational influences, as described by Geoff:

I think the creative process involves… a tension between play and discipline ...You’ve got to have the ability to put things around you have get to be somewhat comfortable in ambiguous spaces where you might have to hold to kind of contradictory or puzzling thoughts in your mind simultaneously…. [You have to have a] kind of playfulness or flexibility or openness and then the other piece of it that is in tension with that the need to be disciplined about your approach because you know you have to kind of bifurcate your mind into the creative, playful, generative part where all the ideas and possibilities come from and you’ve got to create another space for the critical part because you have to also be able to discern good from bad.

How people engage in the steps of the creative process (and the creative tension inherent in the process) requires using many different parts of the brain. The concept of using the ‘whole brain’ in the creative process is discussed next.

**Using The Whole Brain**

Creativity as an iterative problem-solving process involves what many participants referred to as ‘whole-brain’ engagement. Whole brain engagement refers to using all parts of your brain; more specifically, both the artistic and the analytical processes. Sometimes this distinction is simplistically referred to as the ‘right-brain’ (artistic) and ‘left-brain’ (analytical), as Nadja explains:
[I] use the whole-brain thinking model devised by Ned Hermann, who divides the world into 4 thinking preferences – analytical/linear thinking, plus visionary thinking, plus interpersonal/emotional intelligence/relational thinking, and then finally organizing and planning. So I use that model as well in training to develop creative thinking, because creative thinking is not a right-brain thinking process, it is a whole brain thinking process.

Many people in the workplace see creativity as the realm of the artistic side of the brain where participants refer to specific sides of the brain, even though they might not agree which side is most important to creativity. For example, Zachary states, “Your right brain is more of the creative side and where you do more of your visualization. And the left brain tends to be your logical mind.” However, in contrast, Steve emphasizes the role that analytics play in creativity, “[Creative process] is very left brained methodical algorithmic process. And many people can’t handle that. They want to jump into the solution space before they spend time defining the problem.” Others emphasize both sides of the brain such as Zachary, who balances his original thoughts with “Basically what you need to do is to have that creative energy of the right brain within the structured framework of the logical left brain.” By using the whole brain, people can access areas of their mind that they might not even be consciously aware of; and it may be that this access to the subconscious may help people access their innate creative abilities. For example, Nadja says:

Our mind is conscious awareness…our mind is everywhere, its not just in our brain. [For example] our hands. In some cases, I asked questions of people and I say don’t answer verbally. Answer with your hands. Build something, make something; paint something. And then talk about it. So it is a way to access inner knowing and conscious awareness. And it bypasses logical left-brain thinking. It’s a way to uncover multiple ways of
knowing; because if we are just relying on the verbal to be creative, we are limiting our access to imagination, knowledge, wisdom and knowing. That is only one small part of our brain, and so we want to be accessing the unconscious, the imagination, the visual, the kinesthetic, the gut, the emotion. You don’t access all of those things with just the verbal…if you can include more than one modality in your learning experience, then you are augmenting the learning experience because you are giving people different ways of knowing.

One of the ways to access the whole brain seems to be through emotions; and it might be emotions that distinguish creative problem-solving processes from other problem-solving processes. As part of the whole brain, emotions may show up differently during the creative process depending on which part of the brain is engaged. For example, Vanessa describes:

[Emotion can be] expressed differently. If you are using the left brain, you are almost like rationalizing the emotions. And if you are using the right brain, I think it is a little bit more of allowing the emotions to be what they are…Emotions can be positive and sometimes can be negative – and it is the jelling of those together that turns into something else that is pretty awesome…Most of what you are trying to [problem solve in the workplace] is appeal to logic and rationale, rather than creativity. You are trying to problem solve, not creative problem solve. So what really makes the difference between them? In my mind, it’s the emotion.

As covered in this theme, creativity can be described in a number of different ways; and there are some consistencies amongst experienced facilitators. At its essence, creativity involves imagining something that is different than what currently exists, and then taking action to bring that ‘something’ into existence. The ability to create is something that subconsciously naturally
exists in all human beings; however, to be sustained through adulthood means that it needs to be continually practiced and supported. One of the selection criteria to participate in this study was a fundamental belief in creativity as a process; therefore, it is no surprise that creativity as a problem solving process emerged as a consistent description from the participants. The concept of using the ‘whole brain’ emerged as a way to explain how multiple perspectives (e.g., rational and irrational, etc.) are explored and combined to work through the creative process (e.g., generate ideas, select solutions, etc.). During the exploration of this theme, there were several places where the concept of emotion started to emerge. The connection between emotion and creativity is potentially complex; and this relationship is explored next.

Describing Emotion

In order to better understand how facilitators foster the learning of creativity, it is important to understand how facilitators describe emotion. As discussed in Chapter 2, there are parts of emotion that are physiological, other parts that are subconscious, and still other parts that emerge into conscious awareness. Emerging from the data collected in this study are several aspects that combine to describe emotion. To begin, participants see emotion as a signal that some kind of reaction is occurring in the subconscious; and that this reaction can eventually emerge into the consciousness through internal recognition of feelings and/or external behaviors. Also, emotion is seen as providing an intuitive type of information that is different than rational, logical, or cognitive types of information. This intuition involves a sense of judgment about a situation or context; and whether those judgments are to be valued can depend on the stage of the creative process that is at hand. In addition, emotion is viewed as a way to enhance connections between people (e.g., empathy) in order to have more meaningful conversations about the problems they are trying to solve in a creative way. To help with these emotional connections
and conversations, facilitators focus on building an environment that ‘feels’ safe for people to share their different perspectives about the problem and potential solutions. Each aspect describing emotion is explored next using data provided by participants.

**Signaling A Subconscious Reaction**

As discussed in Chapter 2, emotion seems to start as a physiological activity that first emerges in the subconscious as a reaction to some kind of stimulus. These emotional reactions do not need to be consciously acknowledged by the self in order to exist. As expressed by Vanessa, “[The] subconscious – it’s a wonderful mix of logic, emotion, experience, the ability to sense things through your different senses – you know the ones that you prefer, the ones that you don’t even realize that you are using.” Lydia adds, “Emotion is a state of mind. I think it is like breathing. You can be conscious about it, or you [may not] be conscious about it.” Emotion itself seems to reflect some kind of response or reaction that is occurring in the body, as stated by Harry, “[Emotion is] a reaction that is communicated through your senses. I often use the phrase emotional reaction.”

As emotional reactions emerge in conscious awareness, emotion is usually described as feelings, as stated by Jerome, “[Emotion is] a feeling response”. Emotions can also provide a range of possible feeling reactions as described by Nadja, “[Emotions] have to do with feelings that range from joy, happiness, elation to anger frustration and so on.” The subconscious reaction of and the subsequent awareness of emotion can provide access to new ways of see the world differently, as alluded to by Vanessa, “Emotion has to do with feelings…that you can kind of get a sense that somebody is going to a deeper level, not just the intellectual component.”

It seems clear that emotion is always present in human beings. It is a subconscious reaction that cannot be stopped. It is this presence of emotion, like creativity, that seems to be
something that helps to define what it means to be human. As expressed by Geoff, “To me, the emotion is to the human endeavor, like gasoline is to a car. It just doesn’t go without it.” Bill agrees, “[Humans] are a collection of emotions… Emotions are a very important human characteristic, and I don’t know if they are unique to humans…but I do know that they are very important in the human race.” To summarize the importance of emotion to the human condition, Geoff adds:

[Humans] are big bundles of balls of emotion. They bring emotion into the room…There’s emotion involved with everything. I don’t know if you call this emotion but I think it is a fundamental human need. It’s just like the need to be loved. The need to express yourself. The need to invest yourself. The need to actually see that your efforts have an impact on the world.

Whether that presence is subconscious or conscious, and whether the feelings are interpreted and understood by the person who has them, is not so clear. What causes these reactions was not specifically discussed by participants in this study. However, one possible interpretation as to what emotion might mean is discussed next.

**Providing Access To Intuition**

Emotions trigger judgments about what is happening around the individual. These judgments may not even be conscious, as Bill explains, “The amygdala is registering emotions and sort of automatically making assessments that you may not even be conscious of.” The constant accumulation of these assessments can serve as a foundation for intuition. It is intuition that provides initial interpretations of a situation or problem, and a direction on how to respond to that situation or problem. Emotion and intuition also seem to provide insights faster than logic, as Zachary notes, “Emotion is more of your gut feel versus your logical assessment. Your
emotional response to something is pretty much instantaneous, whereas your logical response to something is a little more analytical.”

As emotional reactions become consciously observed by self and others, the interpretation of the value of the judgments that those emotional reactions represent is under debate. Bill considers intuition an important source of data:

I look at [emotion] as an assessment. Emotions are a very good judge of a context and an environment, and very often one’s own emotions seem to reflect those emotions of the people around you. Emotions [are] much better judges than the brain. I think the biggest mistake one can make often is to ignore ones intuition.

However, others such as Steve and Melanie, are more cautious about trusting the information that emotion can provide. Steve says, “[Emotion is] a feeling about something that’s not necessarily validated by data or facts.” Melanie adds, “I think that we all have emotion, it is the question of the choices we have around it...Emotion for me has a lot of bias in it – personal bias. And limits.”

Whether the emotional judgments inherent in intuition are to be trusted, they still exist as part of how people make decisions about what serves their needs. This point is important for creativity in the workplace, because understanding what the customer feels is important is part of determining which solutions will be considered the best or most creative. An example from a customer perspective is offered by Zachary:

When you are standing at the store shelf, it is an emotional decision. You are not buying the detergent, you are buying the feeling of providing clean clothes for your family...The way your brain is wired, all your logic needs to be filtered through your emotional center.
in the middle of your brain, before you make the choice. It can’t just be the logical choice; it also has to be the right ‘feel good’ choice.

All people, including customers, experience emotional reactions, feelings and behaviors. As a result, emotions can serve as a potential (subconscious or conscious) connection point between people. They can help people work together. This connection is discussed next.

**Fostering Connections And Collaboration**

Emotion can connect individuals with others; and people can use that connection to have more meaningful and collaborative conversations. For example Nadja describes how emotions can create the opportunity for discussion:

Sometimes…emotions rise, and it is an opportunity for the group to work things out amongst themselves…its important for people to have meaningful conversations with each other, and to bring their humanity to the table…. and being a whole person.

Similarly Geoff suggests that emotion is part of any connections that people make with each other:

There is always an emotional context to any social situation. Awareness of that context can help you be more productive and just to know what’s going on. These are people who often are meeting each other for the first time. So you give them a chance to become a little more human to each other as well.

People want to connect to each other and to the shared moments they have; and emotion is one way to help that happen. Penelope offers an explanation:

We want to collaborate…that makes a creative leader more successful. The connectivity with emotion is important. The most important part… is when you connect with the people in the meeting …You really express your feelings at the right time and connect
with that person…[Emotion] connects you to that moment. One thing that I learned is that when those emotions come up, to just go with it.

The emotional context and connections that are made (or not) between people can influence how well they collaborate when it comes to creativity. In the workplace, many creative efforts result from groups of people working together to solve a problem. Different people sharing different perspectives and working together to find new and useful solutions. Bringing these people together and having them share is important, as identified by Jerome, “You don’t [create] in a vacuum, you can’t just look at…words and understand them; it has to be a discussion.” Vanessa not only agrees, but structures some of her learning events to create opportunities to collaborate:

[Creativity] is partially individual and there is also a collaborative aspect to it. [In my learning events] I definitely have two people working together. And so by definition, they have to collaborate. One person is taking the picture and the other person is directing the intent. But they have to collaborate together in order to get to that place.

**Building A Trusting Environment**

One of the key components to fostering good discussions is to establish a safe and trusting environment, as Bill notes, “Trust is a predisposition for creativity.” Included in building a trusting environment is making that environment emotionally safe to share, as Penelope states: “[It is very important to creativity that people] feel very safe and able to share their thoughts and ideas.” Furthermore, Charles adds his opinion as to why this type of environment is so important:

You really [want to] set the atmosphere that it is safe and it is ok to laugh in here and it is ok to share different opinions, or say something funny or share an example that is funny.
I think it sometimes just allows people to free up their minds and take down their guards and think a little bit differently.

Participants in this study spend considerable effort to create such an environment. For example, Nadja states:

What I want to create in a creativity learning event is a climate, a mood, an atmosphere – which I think relates to emotion – where people feel safe to say what they need to say and have meaningful conversations with each other so it is safe to take a risk.

Furthermore, Vanessa recognizes also recognizes how important relationships are in building an environment of trust:

Spending the time establishing relationships is really important. I think that it is massively more important for creativity because if you have really done a creative session where things are really jelling, people are sharing their inner most thoughts and connections. People are offering and idea, and you don’t know if it is going to be accepted or rejected, because … in most situations, the first thing that comes out of other people’s mouths is criticism or evaluation of the idea. So the relationship is important because it establishes that trust …and then people can offer an idea, and more often than not, the idea will be accepted and built upon, rather than looked at and critiqued.

How to create this type of safe emotional environment varies amongst the study participants. Some participants focus on providing lots of encouragement to think differently, as Bill shares, “Encouragement is absolutely a predisposition to help. So the Yes/And mentality [which means] ‘yeah, I hear what you say and let me build on that. Here is another idea’.”

Shifting perspective to building and supporting each other’s different ideas involves withholding judgment, as Lydia shares: “Withholding the judgment is like hearing people out first, and then
consider it – [that is] a yes/and mentality.” To summarize the difference between Yes/And and Yes/But perspectives, Nadja explains:

I do encourage people to have fun, to laugh, and to be playful…I create an atmosphere that I call a Yes/And atmosphere, so I encourage people that instead of responding to somebody else’s idea with a Yes/But – which shuts things down, is to respond with a Yes/And, to build on the ideas of others.

This kind of supportive environment also results in a feeling of contribution and possibly better commitment from all members of the group, as described by Jerome, “What makes people happy about the decisions is that they had the opportunity to share what they think and why – and if the approver doesn’t take it, they are still happy to have the chance to share.”

In summary, emotion is a characteristic that all human beings share; and is both a physiological reaction and psychological interpretation of that reaction. Emotion can represent subconscious judgments that provide information that complements logic and rational thinking; sometimes this information can be trusted, other times it is best ignored. In addition, emotion can be a source of connection with others, and can help people convey ideas in ways that extend beyond written and verbal language. Through establishing a ‘trusting’ environment where people can feel safe to share personal (both rational and irrational) thoughts and ideas, the conversations about problems and solutions during the creative process can become much more meaningful.

The Relationship of Creativity, Emotion and Learning

In order to understand how facilitators view the role of affect in the teaching and learning of creative process, it is important to understand how they see creativity, emotion and learning relating to each other. Emerging from the data collected in this study, emotion is distinctly present in several aspects of creativity. First, there is an emotional connection to the problem in
order to start the creative process; there has to be inspiration for something different to exist, and a passion to create that change. Next, the learning and practice of creativity involves a wide range of positive and negative emotions. People learning creativity must overcome negative emotions such as fear, frustration and anger; they also tend to seek out positive emotions, such as elation, excitement, humor, laughter, and a positive attitude. Finally, making time for reflection is important to the practice and learning of creativity. Facilitators recognize that emotion may influence the meaning made from that reflection, and find ways to help people recognize what is most important. Each of these aspects of the relationship between emotion, creativity and learning are discussed.

Finding The Passion For Change

As mentioned in a previous section, a key part of creativity involves inspiration; that is, a desire to change the status quo. Emotion seems to play a role in being inspired to make creative changes happen; it could serve as both the trigger to start the creative process, and it could also provide the energy needed to sustain the effort needed to overcome resistance to new and different ideas. For example, dissatisfaction with the current status quo could lead to a feeling of helplessness or exclusion, and a desire to change those feelings could start the creative process.

This inspiration to make something different is an emotional experience, as Vanessa notes: “I think inspiration is the biggest emotional component [of creativity]…[Creativity happens when] people are genuinely and authentically interested in the ideas and having something happen as a consequence of getting together to ideate.” Sometimes this emotional component of inspiration is referred to as passion. It is passion that is needed to initiate change; and to drive creative effort, as noted by Bill:
Emotion plays a role in [creativity]…I don’t think [people] will be really creative or innovative without being passionately involved in what they are doing and caring greatly emotionally about the topic they are trying to innovate against…I subscribe to a system is that everybody is creative to the extent somebody has a need or something they really care about.

Sometimes this passion is what sparks creative activity, as explained by Geoff: “Passion and energy and what I would call purpose or spark is hugely important. Certainly you could be more creative when you are emotionally involved…nothing really happens unless people care.” This passion not only starts the creative process, but also sustains it through to creative results, as described by Harry: “There is a strong correlation with people who take action and work through the four stage of the process and follow up afterwards…[those] are the ones who are emotionally passionate.”

While an overarching passion for a change is important for creativity, a variety of different emotions stemming from this passion can emerge at various times throughout the creative process. On one hand, passion can stimulate positive emotions resulting from breakthrough results and overcome negative feelings resulting from constant barriers to change. On the other hand, passion can also create blind spots and new barriers. To address this, Nadja advocates for caution and appropriate balance when it comes to passion: “[I like to] in some ways encourage passion and in other ways temper it, because while it is important to have a vision and be passionate about it, too much passion can have an adverse effect on your effectiveness and your ability to produce results.”

Emotions occur throughout the creative process; and they can oscillate between highly negative valence (e.g., fear and frustration) and highly positive valence (e.g., elation, joy and
happiness). In the next two sections, each end of the emotional valence continuum will be discussed.

**Overcoming Negative Emotions**

Generally-speaking, negative emotions can hinder the learning and practice of creativity. For example, negative emotions can limit generative thinking, as mentioned by Charles, “I think that people that are more close minded, and judgmental and angry at the world have a tougher time thinking differently or doing things differently.” In addition, Bill mentions that negative emotions can limit the power of inspiration:

Negative emotions are feelings that things that are impossible, a mood of rejection, a mood of resignation, a mood of content – these sorts of emotions are negative and are not going to be likely to inspire people to come up with new ideas.

Because creativity by definition can challenge the status quo of best practices, individuals are tasked with proposing new ideas that force others to stop and question their own assumptions and the assumptions of others. This questioning may trigger negative emotional reactions. Recognizing and overcoming these negative feelings seems to be important to learning and practicing creativity. Fear, frustration and anger were three of the most common feelings with negative valence involved with learning creativity that were discussed by facilitators in this study.

**Fear.**

As mentioned in an earlier section, creativity is about challenging status quo by creating something new and different. Because of that characteristic, creativity contains an element of fear for many people (be it real or imagined). This fear can inhibit creativity, as explained by Bill:
The biggest barrier [to creativity in the workplace] that shows up is fear. The fear at some level is a perception and … it is an emotion that is grounded in certain assessments that one takes of the situation… sometimes great fear and that can be very negative. That type of emotion can get in the way [of creativity].

Fear as an emotion can manifest as concern, worry or anxiety about being classified by others who support the status quo as different, weird, or in some extremes, subversive as expressed by Geoff:

There’s a certain element of subversiveness or danger in the idea of being creative or for a lot of people…I think the biggest barrier in almost all cases of adult education the biggest barrier to creativity is usually fear. It’s an emotion. But the biggest barrier to creativity is usually some form of inhibition about it…[people] are intimidated by things … that [they] don’t understand, and … skills that they don’t feel that they have. And so I [feel] the importance to lower the psychological barriers

In order to help people learn creativity, this fear needs to be acknowledged and addressed, as mentioned by Nadja:

If they are feeling frustrated and angry or afraid, there is fear, then we try to address that – I let them experience it and be with it and talk about it and then find a way that they can neutralize it or take it to another level.

**Frustration.**

The second negative emotion is frustration. One way that frustration can emerge during creativity is from contrasting the positive feelings generated by the concept of the original idea in comparison to the tedious work needed to transform inspiration into action. For example, Nadja highlights:
There can be a lot of frustration in creativity… You have an idea, whether the idea comes out of pain or joy, the idea could be exhilarating, it could be scary to think about putting that into action, you could feel really tired. The idea could be exciting; but when you start moving into action, you run across one roadblock after another, people start arguing with you that it can’t be done and you have to convince people, and maybe it is hard to manage the team and one thing after another goes wrong, the production aspect could be exhausting, it could be boring – there is a lot of tedious work involved… You don’t end up with producing something perfect right off the bat. There are going to be times of shaping, of crafting… It isn’t easy. The creative process isn’t always a happy, invigorating, enlivening experience. Sometimes its painful and arduous and exhausting.

To help overcome this frustration, Melanie suggests recognizing and then minimizing the negative influence that these emotions can generate:

I think that emotions really block creativity, and I have found a way to open it up so that it doesn’t have to … when I am confused about something or want to learn something new, I have to recognize the emotions, and the resistance, and annoyance, and the ‘I doubt you’, and as soon as I feel that, I stop and I go ‘huh, interesting that I am resisting; interesting that I am this’… so I am able to pull myself back into my observer modality, and watch what is going on with my emotions. And [still] have them, allow them to exist – but not let them rule my life… I am not saying you shouldn’t use emotion or get into it when it is appropriate; because I love being annoyed and excited just like anyone else. But when I am going to work and create something, I have to be more dispassionate.

_Anger._
In teaching creativity, facilitators first have to assess the predispositions of the people who are attending their learning session. Most often, facilitators are hired or selected by a manager to work with a group of people; sometimes those people are willing participants and other times they are mandated to attend. For the latter members of the group, the feeling of being forced to learn or do creativity generates anger and resistance. For example, Zachary states, “When you are trying to teach somebody who doesn’t want to be taught, it is torture.”

When people don’t choose to voluntarily be a part of the learning of creativity, they can make it a miserable experience for all, as noted by Nadja:

[The] worst case scenario is when people don’t want to be there. They are looking at me with negativity, with skepticism, they don’t want to participate. They are angry, judgmental and cynical…I don’t want people to be in the room if they don’t want to be there.

Similarly, the learning of the group can also be hindered, as explained by Harry:

[The] worst case scenario is having people that don’t want to be there, and are told to be there, and that have to be there…[People] with a negative reaction are not going to want to learn.

In summary, if emotion in creativity was only a negative, then most rational people would choose not to engage in it. However as mentioned earlier, creativity is a natural human activity; therefore, there must be something emotional in the creative process that counter-balances this fear and frustration. One possibility is that there are positive feelings throughout the creative process that help people overcome the negative feelings.
Seeking Positive Emotions

Examples of positive emotions associated with the learning of creative process are the feelings of delight and pleasure that comes from learning; as well as the exhilaration from discovering something new and different from the creative process. It seems as though these emotions might create a pull towards engaging in the creative process despite the negative feelings that can arise. For example, positive emotions can also increase the search for new and different ideas, as mentioned by Charles:

People that are more light hearted or can bring humor into the workplace will foster thinking differently and looking for different ways to do things. So there is emotion behind it…When they are creative, they feel happy, they feel engaged, they feel motivated, they feel empowered.

Positive emotions involved in the learning and practice of creativity that were discussed by facilitators in this study included elation, excitement, humor, laughter and a positive attitude.

Elation and excitement.

Engaging in the process of creativity can be rewarding in itself, as Hillary expresses, “It is incredibly rewarding to be taken through the [creative] process, and it works….I think that emotion is both the pull [towards creativity] and the output [from creative process].” For example, Nadja tries to highlight: “There can be elation [in creativity] when you come up with an idea that just sits well.”

Overall, the feeling from creativity tends to be something that is desired by people, as Lydia states, “Creativity tends to bring on a very positive emotional experience.” For example, Bill mentions the excitement one gets from creative process when suffering is reduced and joy is increased:
The practice of creative process in any environment where somebody cares about something enough to be emotional about it is very exciting. Whether one is learning about the creative process by bringing a real situation to the creative process, or whether one finds oneself in a very meaningful situation that is emotionally charged, and somehow either intuitively or even cognitively bringing the creative process to bear to further help reduce suffering in that situation or increase joy or whatever the purpose may be I think that is where creativity is doing its work.

To leverage the positive influence of emotions may lie in when emotion is encouraged during the process. For example, Geoff highlights how emotion is used differently when generating ideas and selecting solutions:

When we talk about emotion [and creativity] I would say that period where you are being generative, where you are bringing the things up is probably more emotional than when you are doing the editing or the winnowing or the decision making parts…when you’re actually making the stuff creating you want to be you definitely want to be feeling emotion. I think when you are editing and you are kind of doing that kind of critical part you want to be more dispassionate. You want to try to be more objective.

**Humor and laughter.**

One of the key aspects of the creative process is to explore multiple perspectives in order to generate new ideas. In order to generate these ideas, and to accept new ideas from others, people need to have an open mind. Humor is one was that can help people be more open, as Charles says, “I think humor is a natural thing that humans need to experience in order to open their minds.” Humor can also lead to stronger memory of what was learned, as described by Geoff:
I like to have people comfortable and relaxed, but humor is also used to strengthen the learning process. If you remember something and you associate positive emotion with it, you are going to remember it more easily...humor and emotion - especially strong emotion – are associated with memory. It is a way that the brain encodes information. If you laugh or you enjoy something or you feel strongly emotional whether it is repulsion, disgust, anger, fear, whatever, the brain is kind of like a cement that really locks that memory in and those memories become strengthened by that.

A common emotional reaction associated with humor is laughter. How laughter can lead to increased creativity is described by Nadja:

Laughter and playfulness, having fun...those kinds of things stimulate endorphins in our brain; and when those endorphins are released, that opens up new passages for creativity...when we release endorphins, our brain is relaxed. And it allows for imagination to be present.... the analytical part of our brain and the voice of judgment and the inner critical, quiet down. And when it quiets down, we experience silence. And that is when we can access imagination and breakthrough insights. So those things occur ...And also when we are laughing together, imagination kicks in...These create the conditions for creative ideas and creative expression. It makes creativity less scary.

In addition, laughter seems to create a more effective learning environment for creativity, as explained by Bill:

The emotion of laughter is quite powerful ...I teach everybody to listen for the laughter ...when somebody laughs at an idea that seems totally ridiculous, it is probably very valuable at one level. And number two if one can create an environment where people are laughing and having fun generally; then they are going to be more relaxed and creative.
Positive attitude.

In order to maximize the learning of creativity, people should have the desire to engage in the process learning creativity, as described by Geoff:

Creativity to me seems to come from a joyful place…If they don’t believe that creativity is going to help them then there’s not much I can teach them. So initially they have to be emotionally connected to wanting to learn something. They have to have a desire.

Similarly, having a positive attitude can help with seeing new possibilities (a key part of the creative process), as stated by Bill: “Positive emotions [leads to an attitude of] anything is possible, we’ll give something a try and see where we go, are going to be predispositions for positive creativity.” In addition, people who voluntarily choose to be a part of the experience contribute a more positive emotional impact on the overall experience, a stated by Zachary:

Best case scenario is when the people that are coming to the workshop are coming by their own choice. They want to be there. Because they are more open to hearing something new….When [people] want to be there, the events can be very invigorating, and fun, and just kind of off the hook.

In summary, the creative process has emotional moments integrated throughout its various steps and activities; and while some of them are feelings of negative emotional valence (e.g., negative emotions), it seems as though that the moments with positive emotional valence provide enough satisfaction and reward to sustain the energy needed to continue forward through the process.

Making Time For Reflection

As discussed so far in this theme, both positive and negative emotions are involved in creativity. Failure to acknowledge the presence of emotion can influence how well creativity is
learned or practiced, as expressed by Bill, “If you have no idea about your emotions, then they are out of control, then they are going to either help or not in a sort of random way.” It also seems as though engaging these emotions are important to both creativity and learning processes, as Harry explains:

It becomes evident all the more clear to me that anybody that is trying to train or education or teach people to be creative or innovative, if they overlook that emotional element, they are overlooking something that is really a substantial contributor to getting some results. People don’t learn unless they are positively or emotionally engaged.

Furthermore, reflection time is important for the learning process (as discussed in Chapter 2). Allowing for reflection is important for both learning and creativity, as it creates a pause in the activity to make sense of what has happened and what is currently happening. For example, Nadja believes:

There is a space between the ending and the beginning called the zone of transformation, and that is where creativity lives…new ideas lie dormant in the brain…That is a time to pause, reflect, and be open to new ideas coming to you.

Most facilitators advocate for some kind of reflection time in order to learn creative process. For example, Vanessa describes what she calls incubation time:

Incubation, which is this whole idea of letting things simmer in your unconscious, and let combinations and patterns forms and you are not realizing that. And the same thing holds true when you are looking at your photo after the fact – that there may have been some subconscious things going on while you were taking the photo, or in your life in between – between the time you thought about it and the time you actually looked at it. And that
helps with your creativity, actually. It helps you get some cool insights about things and the insights allow you to have totally different thoughts – totally different ideas.

Similarly, Hillary refers to a reflection process she calls percolation and that she uses to guide her creative efforts, “[Percolation time] is the essence of great minds and great discoveries. It is the time between assimilating and identifying what the problem is and absorbing all of the facts.” When conducting learning events concerning creativity and creative process, one way that reflection time is integrated is through debrief conversations held after the completion of a step in the creative process. Incorporating reflection time through these debrief conversations may lead to better creative results, as mentioned by Vanessa, “I think there is a very fine line between creativity and learning. I think the debrief is part of the learning [and where] you can be even better at coming up with creative ideas.” For example, Harry wants people to focus on how they are feeling during different steps of the process, “During the workshop I have them doing some reflection, and have them think about how they do feel when they are creative, and how they feel when they are not creative.”

Exactly how emotion in the reflective process helps people learn creativity is not so clear. On one hand, Nadja believes that emotion influences memory, “When we experience emotion with something we are learning, I believe we are more engaged in the learning process and it makes the learning more memorable.” On another hand, reflecting on emotion during the creative process might also help individuals connect new and different ideas together as described by Hillary:

Emotion opens the door to learning, opens the door to bonding with the ideas, opens the door to ideas and facts, opens the door to me as the facilitator, and opens the door engagement in the whole process…And also, the feelings themselves – you know –
confidence etc, that come from being able to solve problems. I mean I would say what I
strive for is creativity, magic and joy. Creativity being the ability to solve problems; the
magic is the inexplicable connections or unexpected connections and joy, if you look at
the definition in the dictionary, it includes success. And joy comes from the beginning of
the process, the tapping into that joy of curiosity.

To summarize, both positive and negative emotions are involved in both the practice and
learning of creativity. It seems that negative emotions, such as the dissatisfaction with the
current reality, can help ignite creative effort; however, positive emotions seem to be needed to
help overcome the limitations that negative emotions can create. In addition, there are parts of
the creative process when emotion is needed to be fully engaged; and other parts when emotion
needs to be minimized.

What Helps and Hinders the Learning of Creativity

In order to understand how facilitators prepare to facilitate the learning of creativity, it is
important to understand what they consider are the biggest enablers and barriers to learning
creativity. From the data gathered in this study, several key concepts emerged. First, it seems as
though societal systems and structures (such as schools and the workplace) are built to support
the skills and abilities in the ‘left’ side of our brains; which neglects and devalues the importance
of the ‘right’ side of our brains. In part, this creates a system that ‘trains-out’ the natural creative
abilities in which people are born. Next, the emphasis on becoming experts in specific context
areas in order to be more efficient in solving problems can create assumptions that leave little
room for challenging tried and true solutions. To be more creative, experts need to be able to ask
questions that challenge those assumptions (like a beginner). Finally, learning creativity in the
workplace requires a sponsor – a manager who has the ability to allocate money and time needed
to learn and practice creativity. Support from this sponsor can take different forms, and a wavering of this support (for any number of reasons), can diminish how creativity is embedded into the minds and habits of the people who participate in the learning events. Each of these concepts are discussed next.

**Training Creativity Out of Ourselves**

Generally-speaking, people have natural creative ability (as discussed in previous sections). Which, if true, begs the question, “why do people need help to learn creativity?” One of the possible reasons that surfaced during this study is that our natural creativity is trained out of us by society and by the workplace. What seems to be valued by societal and business systems is predictability, logic, and analysis; and most resources are centered on supporting the development of those skills. As a result, other skills and abilities that are just as important for creativity (such as playfulness, artistic visioning and expression, etc.) are not supported; and by default, are largely ignored and even suppressed.

*Society and schools.*

The start of this ‘training-out’ seems to be the school systems, as noted by Geoff:

We do a good job of training people out of their creativity when they are small…I think that we have an industrialized society where we kind of engineered our school systems to try to make people more consistent and we kind of make them more sort of standardized components that fit into the big system that we have here. I think part of that is training people out of some of their natural creative tendencies.

Schools in particular seem to play a role in not supporting and discouraging the development of creativity. For example, Zachary states:
We don’t encourage creativity in schools the way we should. It’s interesting that when we teach math and science, we follow a very regimented program. There is testing and memorization and assessments and things like that. But when we teach the arts, you basically give a child a bucket of crayons and a piece of paper and stand back and watch. It is the exact opposite. There is no program. There is no encouraging. There are no assessments as there are with the sciences and math. So we tend to drill [creativity] out of children.

As mentioned earlier, intuition is part of inspiration; and inspiration is part of creativity. It seems as though society and schools have minimized the value of intuition; which therefore, diminishes creativity. Zachary goes further to summarize the overall perspective shared by many study participants, “Einstein said ‘the intuitive mind is a sacred gift. And the logical mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift.’ And for me that is my mantra.” Furthermore, schools emphasize critique and analysis, which can limit creativity by focusing only what is wrong with an idea rather than what possibilities that idea can provide. For example, Vanessa says:

[People] have been practically trained [to focus on] criticism or evaluation of the idea; instead of the building of an idea. [That] is important because it establishes that…people can offer an idea, and more often than not [it is] critiqued.

This emphasis on critique and analysis also creates an inherent conflict for those who try to be creative in an analytically-based world, as Geoff identifies:

I think the analysts are quick to kill any of the ideas before they have a chance. And they are also very quick to have an analysis of why things failed. Where they are not so successful is in the analysis of why things succeed...There are no facts about the future
that you can analyze. The only facts that you can analyze are in the past. So if you are trying to create something in the future, you can’t analyze your way into the future. You can only analyze the past. The only way you can move into the future is by design. You have to design your way into the future.

**Workplace.**

Beyond school and society, the workplace doesn’t offer much support either, as noted by Charles:

The workplace does not foster creativity and innovation. And for the most part people feel like they are pretty creative outside of the workplace…[For example] I have had folks in my workshops before that have been very evaluative and are constantly judging how not only they think, but how others think…I think what really suppresses that is that you might be creative and come up with ideas, but then people shoot down those ideas and you no longer feel creative anymore.

People who try to hold onto their creative abilities can become frustrated by lack of support, as described by Zachary (an engineer who is also an artist):

As a creative, I tend to not always follow [the] rules. And [companies] didn’t really value the role of artist that I brought to the party. It was like I was using art as a way of solving the problems in a very unique way, and [my company] didn’t know how to value that.

Instead of fostering creative abilities, most people in today’s society are focused on analytical abilities. Becoming experts in certain topics and situations is a reflection of people’s analytical accomplishments, as they achieve expertise through constant recognition of patterns through analysis and reflection. The influence of this expertise on creativity is discussed next.
**Being An Expert With A Beginner’s Mind**

When solving a problem, experts can leverage their knowledge and experience in the context or domain of that problem in order to quickly select best-fit solutions based on historical best practices. Because of their knowledge and experience, they have amassed a set of assumption about the problem that serve as signals for picking the best-fit solution. This makes them efficient in solving problems, but it may also make them more likely to overlook unique and minor details that could lead to more creative solutions. For example, Geoff says: “When it is time to be creative is when it is time to be inefficient. It is time to see things in new ways…Creativity is as much about forgetting and unlearning things as it is about learning new things.”

Beginners on the other hand, are less experienced the context or domain; and therefore, have fewer built-in assumptions about the problem. As a result, they are more likely to ask more obvious questions about the problem. This may lead to less efficient problem-solving decisions, but may also lead to new ways to view the problem and possibly new ways to solve the problem. Consequently, creativity requires a balance between leveraging expertise for speed to solution, and being able to suspend some of the inherent assumptions of expertise in order to see new possibilities.

**Experts.**

Findings from this study show that experts have knowledge and experience that can help understand the problem more deeply. However, this efficiency can create a potential blind spot, as Geoff explains:

[Being an] expert means you could do something quicker, more effectively, more efficiently or better than other people..[but] because [experts] know what they are going
to find often don’t actually look at it. They are not actually paying attention. [So] when you solve problems really well your whole life, and things are working for you, you don’t often consider taking a completely new angle at solving them because the way you have solved them in the past has served you really well.

This track record of success can establish patterns of problem-solving that are based on assumptions about the problem itself; and it is these assumptions that are hard to change in order to be more creative. For example, Bill says, “[Experts] are really wedged into their assumptions.” In order to be more creative requires experts to break through those assumptions, as Melanie explains: “You have to take old beliefs or old behaviors that you once had and shove them aside, to let in new.” Similarly, Vanessa comments that being an expert can limit a person’s ability to see things that are new and different, “As you become more of an expert, you lose some of the freedom to pursue and you lose some freshness.”

Specifically in the engineering community, a person’s expertise is tied to his or her role in the company. Consequently, engineers tend to be trained and rewarded for being an expert in his or her discipline area (e.g., chemical engineer, structural engineer, etc.); and engineers are assigned to solve problems that lie within their specific discipline. Therefore, creative processes grounded in analytics (such as TRIZ) are generally more accepted in the engineering community as a possible way to help experts see beyond the assumptions that overwhelm their inherent assumptions, as described by Steve:

Someone who has been trained in a particular area only has a lot of trouble in envisioning a way of solving a problem that is outside the box that they have been trained in...There are hundreds of scientific laws …that a person in a given discipline or engineering area simply is not aware of…And TRIZ simply attempts to collect those in a way that can
overcome the psychological inertia that you can think of any other way…And the only way you do that is by screening all of the invented patents in the world which includes the ones outside your area of expertise.

**Beginners.**

In contrast to experts, beginners are people who have little or no obvious experience in the problem that is being addressed. One of the advantages of this characteristic is that beginners offer ideas that are less inclined to be influenced by generally-accepted rules about what is good or appropriate, as mentioned by Vanessa: “When you are naive and you know nothing, you can come up with fantastic things.” Being a beginner allows people to work with less known restrictions or rules, as Geoff illustrates with an example:

I had a roommate in college who liked to work on cars. And he was under his car and working on it, and I was just hanging out watching him work. And I am not an expert in cars. I don’t know anything about cars. But he was struggling with something, and I was just looking at it from the outside and I was like ‘well, what about that thing over there – why don’t you just connect those two? Or whatever, I forget what it was. And he was like…’well wow, yeah you can’. The problem was that his expertise was getting in the way…To be an expert in creativity, part of that means to cultivate a beginners mind.”

When engaging in the creative problem solving process, it is important to mix expertise and beginner mindset. As a beginner, you can ask better questions and see more possibilities. As an expert, you can better define the problem. It seems as though there is a role for each type of person to engage in creativity, as long as the person is aware of the blind spots inherent in his or her perspective.
Failing To Sufficiently Support Creativity

When the management of a workplace doesn’t clearly and effectively support creative efforts the level of creativity drops. This lack of support can emerge in a variety of ways, such as a lack of patience in allowing time for new ideas to emerge, a lack of respect for the sponsor of the learning event, poor dispositions before the event even begins, low motivation and a lack of trust. The most common way discussed by study participants revolves around the behaviors of the sponsor or manager of the team working on the problem.

Most organizations and managers proclaim that they want creativity and innovation in their teams; and go to some lengths to find ways to help people learn and use creativity in the work problems they face. It is generally understood that logic and analytics are characteristics that serve as the foundation of solid management practices. However, creativity challenges that foundation, as noted by Geoff: “Creativity is the enemy of consistency and repeatability and predictability and reliability.” In addition, Bill notes, “[Businesses] want creative process, but very often businesses are designed, their systems are designed for relative predictability with is actually the opposite of creativity, which involves unpredictability.”

Living with this unpredictability can create a toll on the manager’s resolve and commitment to creativity. Creativity might be a nice idea, but the actual investments (mental, emotional and monetary) without immediate and predictable returns can create a sense of impatience, as noted by Nadja:

They can’t stand that because, they feel that they may be out of control…Quite often, people are afraid to take a risk and put forward and idea or do something new or even to delve into something that is ambiguous or chaotic. Most managers I know hate chaos. And they hate ambiguity. And if they run away from that they miss an opportunity for a
creative breakthrough…But most managers want to get out of there as quickly as possible and get back to logic and normality.

As a result, managers who initially support creativity and the learning of creativity (by allocating time and money for learning events) can withdraw their support too quickly. Consequently, neither the individuals nor the organization gets the opportunity to realize the results that reinforce the importance of creativity.

Another debilitating situation is when there is little respect in the organization for the person who is sponsoring the learning event, as explained by Geoff:

It could be that the person who brought you into the organization who’s kind of sponsoring you to be the facilitator there is hated in the organization. People are determined to make the workshop fail and it has nothing to do with you. So there is a larger political context that you are unaware of walking in. Literally it could be a feeling of hostility.

A third situation is when the sponsor sends people to the learning event who have an inherently poor disposition. For some reason or another, the people who are identified to participate in the learning event don’t want to be there; they aren’t happy with something in their work or in their lives, or they have a history of resisting change. An example of this is described by Penelope: “Managers [can] send Cranky Mary, or Cranky Jane who is holding the team back, and have a lot of toxic behaviors. They want to send them to the meeting to see if it rubs in.”

A fourth situation is when the organization is half-hearted in their intent; that is, they are more interested in the idea rather than learning or application of the learning back at the workplace. This situation is described by Steve:
[Failure happens when] people are forced into a TRIZ session, it could be maybe somebody has some training money they need to spend and they heard about TRIZ on the web and they say “let’s bring somebody in” but nobody’s really interested. Then they either bring a fake problem, one that’s already solved, or one they really don’t care about solving. That can be a waste of time and money for a lot of people.

A fifth situation is when the sponsor doesn’t trust the process or the team he sent to the learning event, as illustrated by Geoff:

I’ve had [worst case] situations where the boss comes in and says ‘ok you guys I want you to get fucking creative’ and then walks out…I’ve also had it where the boss is pretty creative and the boss leaves people alone to do some creative activity but then comes in but then comes back in the late afternoon and rips everything apart and does it all himself. That’s a terrible it’s just the problem of the micromanager.

If an organization experiences one or more of these situations, people in the organization begin to withdraw their full participation in future attempts to sponsor learning events around creativity. An historical track record of such examples could lead to apathy, as Steve says:

People are never sure whether their management is serious about any of this stuff. If I keep my head down and just do what I am told then this will go away and it won’t bother me and I get back to my job. People are making those judgment calls all the time. Putting their finger up in the wind and seeing where it’s blowing and how much effort they really need to put into it.

There may be more ways that workplace can help or hinder creative work; however, these were the most common aspects that surfaced in this study.
Influences on How the Learning of Creativity is Facilitated

In order to understand how facilitators view the role of affect in the teaching and learning of creative process, it is important to understand what they see as influencing their approaches to facilitation. A core influence stems from possessing a natural curiosity about the world; and constantly questioning why things exist and how things work. By constantly questioning everything, people are less likely to feel uncomfortable challenging the status quo. Another influence involves the anxiety (or nervous energy) felt prior to facilitating a learning event about creative process. This anxiety may be heightened because creativity, by its very nature, involves uncertainty and unpredictability in both activities and in results. A third influence deals with people who are creative are typically viewed by society as ‘different’. Consequently, people who facilitate the learning of creativity have lived with that branding in their personal lives; and therefore, can empathize with their participants as they struggle to learn the creative process.

Facilitators also make a conscious attempt to recognize and use emotions as a way to connect with their participants. These connections help build trust, as well as enhance the learning that occurs during the events. Sometimes the emotions that arise during the events emanate from a defensive mental state; and results in fewer possibilities (in the creative process) and limited choices (which limits learning). Facilitators strive to recognize these situations and take action to help people find alternative choices. The biggest emotional reward from facilitating the learning of creativity is when people experience moments of exhilaration from participating in the creative process. Sometimes those moments are aligned with the outcomes (or products); other times, those moments are aligned with the learning that occurs during the process. Finally, all facilitators feel exhausted after a learning event. Sometimes that exhaustion feels great;
sometimes that exhaustion feels terrible. Each of these influences are explored further in this section.

**Harboring Incessant Curiosity**

Most study participants acknowledged that they had a strong sense of inherent curiosity about the world that existed around them. They consistently asked questions about why things were the way they were and how things worked. For example, Zachary notes, “I have always been very creative myself. I am very curious, I am always curious about how things work.” Similarly, Jerome believes that curiosity is also a characteristic of people who are creative, “I already possess some of what I believe are aspects of a creative person. So I am curious. That is one.” Many times, this characteristic of curiosity is demonstrated through constant questioning, as illustrated by Melanie: “I’ve always had a belief about what’s possible and what change can be, and I have always looked at the world as a place of possibility, so I always ask myself ‘well, why can’t that happen?’” Constantly asking why and trying to better why and how things work is a way to strengthen creative abilities, as expressed by Bill:

I have always been curious…I think I have always been creative; the learning of the process of creativity is an ongoing learning for me…I have] a passion to explore how things work and why things work the way they do and even just the opposite of that – why they don’t work the way they do…the one constant for me is I am always…learning about what works and what doesn’t work.

Having this curiosity may help people learn the creative process more effectively. Furthermore, a facilitator should focus on helping people connect with this natural curiosity, as suggested by Jerome:
One of the things I struggle with is…how difficult it is to teach the creative process. So we kind of came up with a couple of things that are characteristic of people who are creative. And we have sort of ways that we can bring that out of people. So one of the things we found was a natural curiosity. So if a person has a natural curiosity, they can learn this process.

However, teaching others to ‘learn’ the curiosity needed for creativity is difficult. Hillary says it plainly, “Teaching that curiosity is difficult.”

It seems clear that people who have a strong sense of curiosity are better positioned to learn and practice creativity. While it might be difficult for people who do not have a strong sense of curiosity to learn and practice creativity, participants in this study did not suggest that they couldn’t learn or practice it; nor did they offer practical suggestions for how to help those people.

**Preparing With Nervous Energy**

Before a learning event happens, facilitators spoke of struggling with emotions that seem to manifest into nervous energy. As experienced facilitators, they recognize this nervous energy as part of any facilitation process. However, the context of learning creativity means that much of the event cannot be overly planned or predicted. This realization heightens their emotional anxiety. In response, most participants in this study have found ways to channel that nervous emotional energy in ways that calm and prepare themselves for a successful creativity learning event.

Some of the facilitators focus on preparing for the educational event, such as learning more about the particular situation or group, as Charles says, “I always have a feeling of anxiety in terms of how can I customize my communication to fit the audience… [To help] I [do] a lot of
Others, like Hillary focus on learning more about the context of the situation, “The better facts and the more diverse the facts that I bring to the facilitation, and that the group adds to the facilitation, heightens the event.” Still others, like Steve, focus on learning more about the participants:

[When] I have [participant background personality preferences] information then I can manage the group much more effectively...[I want to know] who the people are who are going to want to draw conclusions quickly and others that are going to leave the possibilities open.

But facilitators cannot always assemble information about participants, so they simply prepare themselves for a potential worst case, as noted by Zachary:

I am always a little nervous, because it only takes a couple of spoiled apples to ruin the whole barrel as they say. So if you get people in the groups that are anti-innovation. It can be a very trying event. And so I am always kind of anxious beforehand, but when I get into it, I get into the zone.

Other facilitators pay more attention to themselves. Some focus on shifting to a more positive mood, such as Bill, “I am present in my own emotion as I prepare for class. I might get charged up to be in the right mood for teaching.” Similarly, in preparation for a learning event, Lydia states:

[I get into] almost a meditative mode that I get myself into, sort of like a trance or something… I welcome this opportunity, and I ready to share, and want it to be a positive experience for all in the sense of making contributions. It gives me a lot of confidence, I feel like I am prepared – it is a very positive feeling.
Other anxieties can also emerge from this nervous energy. Many facilitators want to come across as knowledgeable, but also want to participate in the learning too. As a self-proclaimed practitioner who happens to teach, Jerome says, “I don’t want to come across as a know-it-all, and that I have every answer to these complex problems.” Some, like Bill, are more concerned about being capable of creating an environment that fosters engagement and learning, “Probably the biggest emotional barrier I have [as a facilitator] would be fear. The fear of non-engagement for some activity [where it] would be embarrassing to them or would offend somebody.” Still others, like Vanessa, want to make sure that they are completely engaged in the learning events themselves:

I don’t want to feel like I am the leader who goes in and turns on the tape recorder and you know – same time last year, same time a week ago. So I want to make sure that I am fresh as well…to make sure that I am at the top form mentally, physically, emotionally so that I can help the group get to the best learning.

In summary, facilitators want to help participants learn creativity; and to do so, facilitators need to be aware of the emotional anxiety that can emerge from both the typical facilitation process and the inherent unpredictability of creative process. The nervous energy they feel before conducting an educational event is expected; and each facilitator has found his or her own way to channel that nervous energy in helpful ways.

**Being Creative Means Being Different**

The participants in this study are experienced facilitators; they help others learn creativity. They also realize how difficult it is to be creative in the world; because it means being seen as ‘different’ than other people. These facilitators can empathize with workshop participants about
the struggle participants might face practicing creativity, because the facilitators have faced those struggles themselves.

Many of the facilitators in this study commented on how they felt different than others since an early age. For example, Bill says, “I have always been creative as a kid – I think I learned the hard way in school – some of my old report cards [were bad and] said that curiosity gets the better of him sometimes.” Similarly, Zachary recalls that he simply realized that he was different than others, “I never realized for years and years – I never realized that people thought differently than I did. That I was chunking information differently than those people.”

Sometimes being unique and different caused physical harm, as stated by Melanie:

Nobody ever taught me. I was born with a creative brain…[Thinking different] was hard because I really was beaten up for it literally. I was always in trouble and always trying to do things in others ways to see if something else was possible to see if there was a more direct route somewhere.

Being considered unique and different in society can create other challenges. Some, like Lydia, the challenges were about communication and confidence:

Before I got the label of being a creative professional, I had a feeling that I had creative ideas, but I never had the language – I never had the code or ways to express what I was doing…Because I didn’t really identify myself as being creative, I am good at problem solving, and I am expressive in terms of creativity – but I just don’t see myself as creative because at that time I was thinking that creativity applies to people that wear tie die, are all over the place.

For others, like Zachary, this feeling of being different continues through into adulthood and finds system challenges in the workplace:
Being a creative…has always been a very difficult role, because you do think differently than most people. And they tend to pigeon hole you in a negative way, because of it...[and] it kind of rubs me the wrong way. That if you think differently than the pack, there is something wrong with you. And my vision has always been ‘no, I’m sorry, there is something really right with you’…[in] a very structured company, there are rules that you have to follow. There are certain ways of doing things. And you know, as a creative, I tend to not always follow those rules.

While it may show up in various ways, being creative or engaging in creativity can create a sense of ‘being different’ than other people. This sense of being different can lead to a feeling of isolation. How people reconcile and adapt to that feeling was not discussed in this study; however, the facilitators in this study have been successful at practicing and teaching creativity for a number of years. Therefore, each of them must have found some way to make sense of it for themselves; and quite possibly, use their experience as a connection point to empathize with people in their learning events. Ways that facilitators connect emotionally with participants is discussed next.

**Connecting Emotionally With Participants**

As mentioned in an earlier theme, people need to make connections with others in order to collaborate and be more creative. Making a connection with the facilitator of creative learning events seems to be important as well. Facilitators seem to believe that in order to be successful in helping people learn creativity, they need to make emotional connections with the people in the class or event.

*Creating connections.*
First, it seems to be important that facilitators are emotionally connected to themselves and the topic at hand in order to better facilitate the learning of creativity. This means that facilitators must have an internal passion for helping others learn creativity, and use that passion to help engage others in the learning process. For example, Penelope mentions:

You need to believe in what you are doing – that it is the right thing to be doing. And you need to know that you are going to get results if you do it in the right way. And I think that sometimes other things that you are doing – you can get by as a facilitator job – but when you do creativity, you need to have that in your heart that it is going to work.

Charles agrees and adds, “I don’t believe that you can teach the creative process without confidence in what you are teaching; passion around a particular topic, and a willingness to emotionally connect with your participants.”

Once a facilitator makes emotional connections with his or her self, then he/she can make better emotional connections with the participants, as explained by Harry: “I need to be emotionally engaged, and emotionally connected to as many of the participants. So that helps me facilitate them and inspire them.” The emphasis is on the emotional part of these connections, as mentioned by Zachary: “It’s a very emotional experience for me, and I am trying to connect with them and get them to understand the role that emotion plays as part of this process.” In addition, facilitators pay attention to the participants’ emotional needs. For example, Vanessa pays attention to the ‘emotional space’ needed for creativity and learning:

[I] create the space for…connections to be made…[I] think about the people coming in…who they are, what they need emotionally to support their learning and to have them get to a creative place. I think it is really important as a facilitator that you are not just relating to the group on a rational level, but that you are using your head and you are
using your heart and you are using your gut, in order to help you facilitate what is going on. If you want to really foster creativity, you need to be open to at least those three aspects of things as a facilitator.

Melanie also holds a similar ‘space’ for emotions and learning:

I teach them how to change and how to adopt, and then we work together to figure out what that looks like to them…I hold the space for them to do the content shifts that they need to, but I have to hold the structural space. So the whole first day they are unraveling, and then – I have a lot of people crying, I have 50% of my rooms crying.

_Taking action._

To make the important emotional connections with participants, facilitators take a combination of actions, such as planning, greeting people when they enter the room, and setting expectations that feelings will be a part of the event. Some invest in planning and preparing in a way that allows for more flexible in-class adaptations. Penelope explains, “We do a very detailed planning…[but] we do not go there and just do the thing, even though we have done this 30 times already. It is not a cookie cutter. You cannot treat every team the same.” Similarly, Vanessa adds:

Every learning group has its own unique personality – some people are heavily into creativity, some people are just learning, some people are skeptical. And so it is just making that you tune in to what that particular group needs, and if you need to spend a little more time on skill building or spend a little less time on skill building, you can flex the schedule to meet the needs of the group.

Most facilitators focus on the initial emotional engagements with participants in order to have a baseline for adapting to individual and group needs. For example, Charles greets people
as the walk into the room, “From the time I greet everybody that comes into my session. I get a sense of their emotional state of mind when they walk into the course.” In addition, Melanie sets clear expectations for the emotions that people could be feeling at the start or during the learning event:

The first thing I say is ‘my job is to get you confused, because if you aren’t confused then you think you know something, and you are not going to learn anything, so the first thing we have to do is get you confused…I tell them that I have nothing to teach if they have nothing to learn.

Some facilitators find ways to help make emotions more explicit. For example, Geoff says: [Participants] might appear to be not interested in the topic but they are just sleepy or whatever. I try to get them to make those emotions explicit and have them- they’re usually in tables round tables of six to eight people and I have them make those emotions explicit to each other at the very beginning of the day…I have them make a little placard that they put on the table that has their name on it and I will ask them to draw a little smiley or frowny or some kind of face that represents the feeling or emotion that they have.

Observing and adapting.

Experienced facilitators of learning the creative process seem to be effective observers of non-verbal behaviors that have emotional context; and use the interpretations of those observations as feedback about their facilitation approach and effectiveness. Although, what facilitators pay attention to can vary. Some, like Charles, focus on non-verbal behavior. He states:
For the most part as a teacher, as a trainer, as an instructor, I am there to observe to see if they are getting it, are they fully experiencing the activities themselves, so I would rather focus on people’s non-verbals.

The most common non-verbal behaviors involving emotions are described by Bill, “Emotions show up in people’s faces. Emotionally engaged looks like leaning forward, it looks like connected, eyes are open, it looks like listening; it looks like some level of enthusiasm.” In addition, Zachary mentions similar behaviors, “I can always tell the people who are engaged and intrigued by what I am teaching, because they tend to sit forward towards the front of their chairs and leaning in, and they are engaged in eye contact.” Furthermore, Vanessa provides examples of additional behaviors:

Oftentimes you can see [emotion] in the animation associated with the participants – you know, that spark in their eyes, the fire in their belly, speaking passionately about their idea or the ideas that are being generated. So again, there is a lot between that emotional connection and having people engaged.

There are also behaviors that indicate times when people are not engaged. For example, Hillary says:

Repetitive actions – you know, the spinning of the pen, the constant squeezing of the play dough without creating something, and that kind of repetitive stuff – to me, that is like a caged animal. And looking at biomimicry, when an animal paces in a pen, they are bored out of their minds.

Paying attention to these participant behaviors provides key feedback to facilitators, as explained by Harry: “There is a natural desire for me as a trainer to look for people that affirm that I am helping them learn, and have a positive reaction.” It helps them make dynamic and
immediate judgments about the level of engagement in the event, and what to do next to increase that engagement effectively. For example, Vanessa says:

I always try to make sure that I am not hurrying people along and that really very much is depend on the people who are in the class on the workshop. I mean some people reflect quickly, and then other people just need to ponder things a little bit longer and appreciate my [giving them] twice or three times as much time. It is kind of looking at the people that are in the workshop and kind of getting a sense based on their body language and especially their body expressions.

An additional example is provided by Jerome:

If I am stating a principle and I follow that up with an illustration by telling a story, if I had a good connection with the audience then I would know that parts of the story will make them laugh or smile, or take good notes, or have a personal understanding or empathy with what I said…I want people to empathize with the characters in my stories.

There seems to be one type of behavior that experienced facilitators try not to misinterpret. This is when participants are quiet or non-expressive. Silence does not necessarily mean non-engagement, as Bill describes, “Ironically I often find that people who are quite quiet and appear not to be emotionally engaged are the ones who have a whole lot to offer.” Charles also comments:

It is so obvious with people who are very expressive with their emotions. So if people are smiling and shaking their heads and you an increase in their energy level for folks that express their emotions so well – it is easy to read….if I had a person in my class that was just stone cold and not real expressive, I used to try to provide them, I used to walk over to them more, or ask them more direct questions to help them participate, and try to tap
into their emotions – I don’t do that anymore. I realized that just because they are not expressing it doesn’t mean they aren’t learning or not connecting with it emotionally.

*Focusing on participants.*

Emotional connections during a learning event are not static; they seem to ebb and flow throughout the event based on the interactions that may occur between participants, and between participants and the facilitator. To be an effective facilitator of creativity requires a proactive approach to determining what participants’ need, as described by Vanessa:

You have that intuitive feel and you kind of check in with the group to make sure they are getting what they expected… The way you facilitate is that you entrust or give them permission to explore their own creative expression – how they are viewing a situation – and being very accepting of anything they come up with... [Then I listen] to what their needs are, as well as their expectations. And then having enough stuff within your bag of tricks, and experiences and readings and actual sessions that you have conducted in the past so that you can not only answer questions, but also drive them through experiences so that they have ah-ha moments.

Most facilitators, like Nadja, spend a lot of time observing the dynamic changes in emotional connections during the class or event:

My job is to be of service to the group; to track what is going on energetically and emotionally in the group and respond to that... I am paying attention to what people are saying and also what the energy is in the room to what people are feeling, and then I am responsive to what they are feeling – whatever the range is – from resistance, frustration, anger, joy, excitement, etc… I am tracking energy, so part of that is how I am feeling, and
how the group is feeling. So I am very sensitive in that way, so I use my body as a
barometer to track the feeling and the emotion.

Some facilitators, like Harry, ask specific and direct questions about how people are
feeling:

One of the things that I do in the training is at the end of each of the stages, I ask people
how does it feel to have worked through this stage. I ask them how does it feel – do you
feel better, does it feel worse.

For example, Bill uses a specific tool to ensure participants can share what they are
learning and what they still need:

The helicopter check-in is a method for people to visualize a way of observing how they
show up in the world on three channels… how I feel, the channel of how I am, and the
channel of what am I thinking or saying. So body, emotion and cognition – three
channels. And then this metaphor seems to work with people. And I use it regularly
because I want them to constantly be learning about themselves...[and] I think that
acknowledging progress, acknowledging effort, and acknowledging is important.

In order to successfully maintain connections with participants, a facilitator also needs to
pay attention to his/her personal preferences (and inherent blind spots), as mentioned by Zachary:

I’m a visual thinker myself and I teach visually. I use a lot of metaphors, and iconic
imagery and cartoons, and things. [But] people who are very structured and analytical,
tend not to be very visual. And so, it is easy for them to not be engaged in the process.
And so sometimes I have to kind of step back and be a little more analytical in my
approach in order to keep those people engaged....[I] have to read the feel of the crowd as
you go. And understand their emotions. If it is too logical, then you lose the visual people, and if it is too visual you lose the logical people.

Another way to overcome these blind spots is to partner with a partner facilitator who brings complementary strengths. For example, Penelope says:

I am extroverted. I am an influencer. I am very talkative. I am a visual person, I talk with my hands. Those are my skills. And I can get people excited – it’s just the way that I talk. But my colleague, my partner, she was a great listener. She could listen to people and make them very comfortable talking to her…[and] she just throws jokes out there and makes people laugh and makes people connect to reality.

**Battling Fight, Flight and Freeze**

One of the biggest challenges faced in facilitating the learning of creativity is that the creative process accesses, evokes, and provokes emotion. As a result, people can react to their own emotions (or the emotions of others) in a defensive way. In these situations, people’s emotions can limit the choices that they have in taking action. That is, they may only see three choices: resist (fight), withdraw (flight), or shutdown (freeze).

A facilitator has to be prepared to help participants channel those emotions in a way that helps. For example, Harry notes, “Most people feel really, really great when they are creative or innovative, and they feel really, really bad, or unrealized, when they are not creative or innovative.” While each situation and group dynamic is different, experienced facilitators seem to be prepared for several typical emotional situations. Recognition of the role that emotion can play is important, as described by Hillary:

Going into any problem solving, there is a mix of emotions anywhere from feelings of curiosity to pain prevention – meaning the process, negativity thoughts that this is going
to be brutal, I don’t have time to do this, facilitators will suck.... through the process, those emotions become searching satisfaction, heightened curiosity, excitement, more potential...[people feel] fear, uncertainty and doubt, is really high anxiety, and carry throughout. And the emotions and frustrations, but there is more tapping into the rational brain, than there is into the emotional part of the brain. So they are tapping into reasons why this isn’t working, so the emotional frustration is driving them to their rational brain. And for them, they are either in fight, flight or freeze...Emotion is the number one attribute, number one factor, number one element to pay attention to in facilitating. Because emotions play such a huge role in its impact on the rational brain. And the rational brain often tries to fight. Where if the emotion is in a state of receptivity vs fight, fear, uncertainty and doubt, that emotion opens the door to learning

Becoming defensive seems to be a common reaction when learning or practicing creativity, because creativity involves challenging assumptions that are held very close to truth. When in a defensive state, choice becomes limited, as Melanie states, “What stops us from having choice is that we get stuck in our unconscious beliefs and emotions, and we get stuck in self defending.” The emotions that stem from becoming defensive can influence engagement; which in turn influences learning and creativity, as Lydia explains: “If one is severely depressed, withdrawn...then you really don’t see other options, you don’t see really a way out.”

Another behavior that can cause fight, flight or freeze stems from sarcasm, as Nadja explains:

One of the rules [in the learning event] is to ban sarcasm. A lot of groups I have noticed in corporations seem to connect with each other at a sarcastic level, and that is their way of bonding. But I ban sarcasm because it has a detrimental effect on creative generativity.
When participants are in the space of fight, flight or freeze, how they react can show up differently. For example, Melanie shares a couple of reactions she experiences:

[During a not-so-good event, participants] come after me – it is very visceral…[also] every once in awhile, they will just stay quiet, which I know is a problem also. So when people stay quiet, I don’t let them stay quiet for too long. So they either stay quiet or they will come after me, and I can tell – I can feel it.

In addition, Steve adds from his experience:

You can have two very different reactions to [the analytical TRIZ process]. You can react and you can say ‘well, this doesn’t make me look very smart, I feel kinda stupid that I couldn’t figure this out years ago’. And the other reaction you could have is ‘my god, what a great productive tool, we can stop reinventing the wheel’. And I will tell you that in the real world, people have both reactions.

If facilitators are successful in helping people recognize the choices they have beyond defensiveness, it increases the chances that people will continue through the entire creative process, and see better results for their creative efforts. The emotional satisfaction gained from realizing these results is discussed next.

**Earning The Ah-ha High**

Throughout this chapter, creativity (and the learning of creativity) has been shown to be laced with emotion and emotional reactions. Sometimes these emotions (e.g., fear, frustration) can be in response to the seemingly overwhelming challenges of being, thinking, and doing something different. Other times, these emotions (e.g., excitement, joy, happiness) can be in response to the potential outcomes and results that possibilities might bring. If creativity and learning involve so much of an emotional rollercoaster, why do facilitators choose this
profession? It seems that a personal motivator of many experienced facilitators is the reward of what they call the ‘Ah-Ha’ moment. These moments are the intense emotional high they get as a result of solving the problem, seeing something different, learning something new, and experiencing others learn something new. These unplanned and often accidental moments can be called many things, such as ‘ah-ha’ moments, ‘eureka’ moments, ‘oh wow’ moments, etc., and facilitators in this study seem to recognize these moments as important emotional events to highlight to themselves and others during the creative process. For example, Charles describes, “You get that feeling of happiness, and liberation, and you see those eureka like moments in the course.”

The emotional highs from these moments can better engage the participants in the learning event, as mentioned by Bill: “I am going to show up and it is going to be fun – for me – but not half as much fun if people were engaging and getting the ah-ha moments.” It might be the characteristic of surprise that helps increase the emotional impact of these moments, as alluded to by Geoff:

A lot of times creative ideas come out of juxtaposing things that don’t normally go together. Like the peanut butter and the chocolate you get the Reese’s peanut butter cup. These happy accidents or these sort of “oh wow” what would happen.

These moments also seem to represent a point in time when the person has clarity in something important, such as how to describe their inspiration or an idea for a new course of action. Vanessa provides an example of one of these moments:

[Ah-ha moments are] connections [that] seem at first blush to be kind of odd, and then having them come together. And so, kind of an example of that: I can’t remember the guys name right now – he had a dream at night about snakes, and he was working on what
the chemical composition of what benzene was, and he had an ah-ha moment where all of a sudden the snakes formed a ring, and so instead of benzene having the structure of what it had before, it became the benzene ring.

For some facilitators, they have experienced these moments as a practitioner of the creative process, and want to share that experience with others, as Steve says, “[My facilitation style is] 60-40 in favor of being a teacher [vs practitioner]. My goal in life is to change the way people think… One group at a time. Many facilitators, like Lydia, try to get others to feel those creative moments:

When I am being creative, there is an excitement, there’s a feeling that everything is possible – ‘what about this, what about that’ – its aesthetic, its climatic – it’s a wonderful place to be in – for me its like being in the zone, in the flow… In some ways … I was getting that ‘high’ about [facilitating creativity]’.

In addition, Zachary also wants to share this feeling with others:

[I] really enjoy trying to teach other people what I know and the process, because it is – being an inventor, you kind of live for those breakthrough moments. I call it the endorphin moment, because its your brain that goes ‘holy shit, I know how to save the world’

For other facilitators, they seek the Ah-Ha from the results or outputs from (instead of the journey during) the creative process. For example, Jerome states, “What makes it successful for me would be for people to recognize a new design that was based upon the previous design.”

Similarly, Steve adds:

If you walk into a group of people that you have never seen before, a problem that you barely know anything about, and at the end of three days you have given the client an
answer that they never even conceived of three days before. That creates a pretty good high

Most facilitators seek the secondary high; that is, the Ah-Ha feelings they get when they observe others realizing their own Ah-Ha moments, as described by Harry, “I think I feel the best when these people feel better about themselves than they did going out.” When and how those moments occur can vary, but when they happen, the feeling is very positive, as described by Jerome when he sees someone practicing the process with customers:

Those amazing moments when you are visiting a customer and they suddenly start talking about the subject that you are really interested in. …when I do it well, and I see someone else do it well – that makes me feel really good.

Similarly, Hillary focuses on recognizing when people start thinking differently, “It gives me great joy to see people’s ‘ah-has’…it is pure fascination for me, and pure joy to see on those occasions where the facts provided at the beginning have stimulated new territory – stimulated new thinking and new solutions.” Others, like Penelope, feel these moments when they observe people realizing their creative ability, “The exciting moment is the moment of possibilities. It is a moment where people are able to be themselves and show their true creativity, their true insides.” Furthermore, other facilitators look for the moments when a participant realizes that their creative abilities have value, as described by Charles:

[Someone else says to the person] ‘I would have never thought of that.’ And just that statement by those people, I believe made that other person feel more creative. . .he might have thought it was a natural or logical step, it being acknowledged and verbally rewarded by creative thinkers – you saw the person light up. You see the person say, ‘you know
what, I am creative. I feel creative. I came up with an idea that nobody else in the room did.’

Achieving these ‘Ah-ha’ moments are definitely rewarding; however, they do require tremendous effort by the participants, as well as the facilitators. These efforts can be cognitively, emotionally, and physically draining; but the feelings associated with that exhaustion may not necessarily be negative. This idea is discussed next.

**Feeling Exhausted**

Facilitating the learning of creative process seems to take a physical, intellectual and emotional toll on the facilitators themselves. A feeling of exhaustion is expected by most experienced facilitators. However, there are subtle differences as whether the emotional context of that exhaustion is positive (feeling good) or negative (feeling bad).

*Experiencing good exhaustion.*

Most facilitators participating in this study wanted a feeling of good exhaustion. This feeling involves physical and mental fatigue; however, personal satisfaction with the learning journey and the results stimulate a positive emotional energy. For example, Zachary explains, “[Teaching creativity] is very energizing.” Harry adds, “It feels awesome when I [can help people connect with creativity].” Geoff comments that facilitation during events can seem effortless:

If [facilitating the learning of creativity is] really going well then it feels kind of effortless. If it’s going well then I am probably doing very little. You know if you are rolling a hoop along or a wheel you get to a certain point where it’s just rolling. It is almost rolling by itself and you are just barely guiding it with your fingers.

However, even when events go well, they are still exhausting, as Bill describes:
I think a really good event is quite exhausting because there is a lot of tension if somebody brings a topic they really care about, there is a lot of emotion in the room. …During the event time flies, and it is a lot of fun and quite exhausting, and after the event it is time to rest.

However, the growth observed in the participants can couch that exhaustion as worthwhile, as Charles says: “[Seeing participants grow confident] gives me a wonderful feeling afterwards…I put so much passion before the event, during the event and even in the post follow up, sometimes I will feel pretty exhausted afterwards.” To illustrate, Geoff tries to describe this feeling through a metaphor of running:

[At the end of a good learning session] I’m usually exhausted. It’s a good kind of exhausted. It’s the feeling you have after you ran five miles. You know you feel exhausted but usually it’s a good kind of tired.

Similarly, this feeling of physical exertion (running) is also referred to by Lydia:

[After a good event, I feel] satisfaction, content. An enjoyment that other learners are walking out into the world…It is a really good feeling…[and] Physically is exhaustion. It takes a lot of energy – in a good way – … it is like after a marathon – you are so exhausted yet exhilarated at the same time.

Another illustrative metaphor of a deflated balloon is provided by Harry:

[I experience] what I call the deflated balloon syndrome. Where, you know how it is when you first blow up a new balloon, its kinda hard to blow up. Then when you let all the air out, you have to go ahead and start over again. In some respects, its how I feel afterwards is like I just deflated a balloon – and not just a little hand balloon, but a hot air balloon that we went sailing on for a couple days with people. And the balloons come
back down to the ground. Or the small hand balloon is out of air, and you look at it and you know, I got another group I am gonna work with in a couple weeks, and I gotta blow this balloon up again. Now here’s the good thing about a balloon, its easier to blow up the second or third time because it gets a little bit more malleable and flexible and stretchable. Or if your gonna go sail a hot air balloon the second or third time you see more beauty.

**Avoiding bad exhaustion.**

Some events do not go well; that is, they are difficult to facilitate and the results are not achieved as hoped (by the participants, management, or even the facilitator). These events also cause exhaustion; however, this type of exhaustion does not contain the emotional energy to overcome mental and physical fatigue. In fact, these kinds of outcomes can create negative or draining emotional energy that can make original fatigue even more devastating. Hillary describes the emotional sense of urgency felt during a difficult event, “It feels like a race to get the people before you lose them forever…It is definitely high energy and high stress and high degree of feeling anxious. Again, to get to people before they fail.” Melanie feels it physically, “When someone is not doing well [learning creativity] or they are resisting I get a stomach ache.” A physical reaction is also described by Zachary, “After the events are over, I usually get a headache, because of the rush of adrenaline.”

How it feels to be a facilitator after a not-so-good event is described by Hillary, “It is depressing. Exhausting.” Similarly, Geoff adds, “I probably would be equally roughly equally exhausted at the end. But it’s not a good kind of a tired. It’s kind of like that was really painful. That really did not go well. I need a drink.” Some facilitators, like Penelope, describe this as being drained:
I go home because you cannot go to the office — I am so drained by that time, I am so exhausted just trying to facilitate. It is like one person carrying a very heavy rock that is 10 ft tall and trying to drag that with me and by the end of it I am exhausted.

This feeling of being drained can lead to frustration, as noted by Jerome:

[I feel a] bit of an energy drain — it might slow down what I am doing or trying to teach. I use to be frustrated; I am not so frustrated anymore with that kind of thing. I guess just because I have learned that it is difficult for some people.

Some facilitators can turn these negative emotions from being frustrated into a motivation to improve, as mentioned by Lydia: “[after a not-so-good event, I feel] frustration. Not satisfied with myself…I tend to jump into how do I improve this. I need to make notes to myself so this doesn’t happen again.”

How bad exhaustion can feel is illustrated by Geoff through a metaphor of playing a game:

[These are situations where] people are needing a lot of coaxing or they’re literally saying “No I’m not going to do that”. I’ve had that where ‘no-I’m not doing that’. Imagine yourself playing a game of Scrabble or Monopoly where somewhere just refuses to do their turn. You can’t really play Monopoly if they’re just not going to roll the dice. I’m sure you’ve had it playing with family members and someone was like “I quit”. Ok well the game can go on for a little while, you can roll their dice for them and move their thing. But really you are expending a lot of effort and I think I probably would be equally roughly equally exhausted at the end. But it’s not a good kind of a tired. It’s kind of like that was really painful.
In most cases, a learning event involving creativity is a draining experience for the facilitators. Sometimes, when the results are perceived as effective, the intellectual, emotional and physical exhaustion seems like a reward for a job well done. Other times, when the results are not so good, the exhaustion is painful; and the negative feelings surrounding these events can serve reflection points for the facilitator to determine how to improve his or her facilitation skills.
Chapter 5

Introduction

The purpose of this study is to explore the role of affect in facilitating the learning of creative process in the workplace. The existing literature was explored to identify what might be currently ‘known’ about creativity, affect and learning; and many of the potential interconnections. The resulting knowledge was then used to select a meaningful combination of concepts to form a solid philosophical framework for study, as well as key research questions. Through data collection, analysis and interpretation, new insights were found in how facilitators use affect to help employees learn and use creative process in a meaningful way.

In this study, the key research questions involved were: how do facilitators describe how they foster creativity; how do facilitators view the role of affect in the teaching/learning of creative process, and how might these views on affect and fostering creativity influence their preparation and facilitative approach to fostering creativity. To address these questions in relation to the literature, the findings from this study are discussed and interpreted in an integrative way. There are five parts to this discussion. The first part is to acknowledge that emotion, creativity and learning do relate, and that emotion can play many parts in the learning of creativity. The second part is exploring the role that emotion plays in taking creative process, and the learning of creative process, beyond cognitive domains of knowing, and makes the learning process/experience of creativity more whole-person. The third part is how facilitators pay attention and use emotion in facilitating the learning of creativity. The fourth part is how facilitators focus on positive emotion more than negative emotion in the learning process, and
why. The chapter ends with implications for practice, limitation of the findings, and suggestions for future research.

**Facilitators See Relationships Amongst Affect, Creativity and Learning**

From the literature and from the findings of this study, it is clear that affect (emotion) does have some influence the practice and learning of creativity. For example, emotions can enable or prevent creative efforts and, creative work can have profound emotional consequences, such as the excitement of discovery, anxiety with challenging the status quo, drudgery of hard work, frustration with obstacles, and anguish of failure (Averill, Chon & Hahn, 2001; Pirola-Merlo et al., 2002; Zhou & George, 2003). Affect exists as feelings during an activity, as well as about an activity; and humans consciously and subconsciously interpret the meaning that those feelings convey. Over time, people can associate those feelings as an attribute of creativity.

These associations can be positive or negative, or both. From a facilitator’s perspective, emotion is something that is present in the learning and practice of creativity, as noted by one participant, Hillary, who stated: “Emotion is the number one attribute, number one factor, number one element to pay attention to in facilitating; because emotions play such a huge role in its impact on the rational brain.” Similarly, emotion helps to connect ideas to results (an essential element for workplace creativity), as stated by Harry, “Anybody that is trying to train or education or teach people to be creative or innovative, if they overlook that emotional element, they are overlooking something that is really a substantial contributor to getting some results.”

To further explore these relationships, this section starts by acknowledging that emotion is part of being human. This is followed by a discussion of how humans are also naturally creative, and as such, creativity and emotion may be connected at a subconscious level. This
section concludes with an exploration of how those connections can emerge in different ways and how emotion has been minimized in society, work, creativity and learning.

**Experiencing Emotion Means Being Human**

While emotions may not define something as being human; it seems clear that part of being human includes the capacity to experience emotion. For example, Geoff said, [Humans] are big bundles of balls of emotion. They bring emotion into the room…"I think it is a fundamental human need." It also seems that as human beings, we cannot turn off the experience of emotions, even though we may try to consciously resist certain emotions, or even rationalize away their influence. People are emotional beings and all human experience has an emotional component, whether or not we try to suppress or over-rationalize it (Crosetto, 2004; Maclaren, 2004). This is because emotions are present in the subconscious of each person. Affect first emerges as a neural/chemical stimulation that exists below consciousness and is expressed biologically; manifests into a feeling through self-awareness (Damasio, 1999). Similarly from this study, Lydia commented: “Emotion is a state of mind. I think it is like breathing. You can be conscious about it, or you [may not] be conscious about it.”

Because emotion exists in the subconscious, the influence of emotion is ever-present in the human experience. The impact of emotion on the human experience is multi-layered. Affect can be a predisposition to an experience that influences the activities in that experience, or a description of how the experience actually feels within the experience (Fillipowicz, 2006; James, Broderson & Eisenberg, 2004). On the one hand, it can be recognizing and interpreting subconscious emotional patterns that carry meaning of what has happened before and using that to anticipate what will happen next; as well as making meaning of what is happening now. This interpretation involves the interaction of many domains of knowing. For example, as stated by
Vanessa, “[The] subconscious – it’s a wonderful mix of logic, emotion, experience, the ability to sense things through your different senses – you know the ones that you prefer, the ones that you don’t even realize that you are using.” On another hand, emotion can encapsulate judgment about an experience. This judgment is rational and irrational; conscious and subconscious, and is also a very real influence on the meaning made by the person making the judgment. Over time, the accumulation of these judgments and form the foundation for intuition and ‘gut feel’, as explained by Bill:

The amygdala is registering emotions and sort of automatically making assessments that you may not even be conscious of.” The constant accumulation of these assessments can serve as a foundation for intuition. It is intuition that provides initial interpretations of a situation or problem, and a direction on how to respond to that situation or problem.

Consequently, since emotion is always present in the human experience, it will have influence on practicing creativity, as well as the learning of (and meaning making from) creative process. While the literature highlights six to eight primary emotions that exist in humans (i.e., Goleman; 1996 (as cited by Glaso & Einersen, 2006); and Damasio, 1999), findings from this study highlight specific emotions that are most attended to by individuals and facilitators when learning creative process: fear, frustration, anger, anxiety, humor/laughter, elation and excitement. There may be more emotions involved, but these were the ones that surfaced with the clearest connections to creativity and learning. These connections are discussed in greater detail in the next section.

**Emotion Relates to Creativity as Person and Process**

Just like emotion, creativity is part of being human. It is a natural ability that all people are born knowing how to use it. This lends itself to a humanistic view of creativity; one that
emphasizes a combination of positioning creativity as both Person and as a Process. Said a different way, creativity is a combination of thinking and feeling abilities that that every person has in some quantity; and that can be utilized by both individuals and teams to address workplace challenges (Baer, Oldham & Cummings, 2003; Burkgren, 2004; Derksen, 1998). At the same time, these abilities can be further developed (learned) or not (unlearned) depending on a variety of interacting influences from the individual and society. For example, Geoff said, “We [society] do a good job of training people out of their creativity.” Similarly, Zachary added, “We tend to drill [creativity] out.”

**Creative person.**

Creativity as Person focuses on what skills and abilities make people different and unique. In the literature, this typically focuses on studies that explore the innate characteristics that underlie creative behaviors and activities. However, this researcher proposes that creativity as Person is more than personality traits. From the findings of this study, it seems as though every person has an innate set of talents, and he/she develops those talents through experience. Each person’s interaction with the world, and the meaning made from those ongoing interactions, can shape the development (or stagnation) of those talents over time. Consequently, each adult in the workplace has a unique and different set of perspectives, skills and abilities that can be focused on any challenge that requires a creative solution. However, work settings are based on predictability and control (i.e., best practices); this means that people who want to exercise their creative ability are seen as different. As such, the people who continue to use their creativity must do so by assuming responsibility for all of the risk that is inherent both in the expected failures of creativity, but also in challenging the status quo. This involves strong emotions, such as passion in the context, self-efficacy, and willingness to overcome fear. The status quo of
society does not assume any risks and wants guarantees; yet creativity, by definition, requires risks, failures and learning to grow and develop. This tension was highlighted by Zachary:

Being a creative…has always been a very difficult role, because you do think differently than most people. And they tend to pigeon hole you in a negative way, because of it...[and] it kind of rubs me the wrong way. That if you think differently than the pack, there is something wrong with you. And my vision has always been ‘no, I’m sorry, there is something really right with you’…[in] a very structured company, there are rules that you have to follow. There are certain ways of doing things. And you know, as a creative, I tend to not always follow those rules.

The inertia of the status quo is very strong; for example, the workplace has built in systemic ways to punish those who are not successful (e.g., performance management). As such, an interesting conflict unfolds: It is the unique combination of talent and experience that makes each and every person creative (i.e., provides them unique and varied perspectives about the world), yet social pressures in life and work only recognize those who can successfully overcome the social pressures to conform to predictability and sameness. This is where creativity as Process can help.

*Creative process.*

Creativity as process is a systematic and iterative approach to addressing challenges in new and unique ways. It combines creative thought, feeling and effort and applies it to workplace challenges in a structured way to transform novel ideas into innovative products that produce intended results (Berkshire, 1995; Christensen, 2006; Cooper, 2005; Madjar, Oldham & Pratt, 2002; Rank, Pace & Frese, 2004; Scott, Leritz & Mumford, 2004). One of the key characteristics of creative process is that it provides structure, but it is also flexible and adaptable
to the individual and the context. That is, it provides guidance, but allows for infinite outcomes based on the unique groups of people (and their talents and experiences) involved. For example, Geoff used the metaphor of rules for a competitive game to highlight the combination of structure with flexibility: “[Creativity] is a loose process. It’s a kinda more like the structure you would see let’s say a football game has a process but it always has a different outcome.”

Creative process starts with a question about what could be different from what currently exists. This question is stated as a defined problem or opportunity in such a way that opens up alternative views (Fontenot, 1993; Moore, 1995). From this study, Nadja summarized this effort as: “[It starts with] a compelling question – a powerful compelling question that causes people to think.” Emotion is also part of this starting point, as creativity involves inspiration and action. First, people need to be inspired to make a change to what exists, and then people need to feel compelled to find ideas and actions to make that change happen. In this study, this was referred to as passion.

The next step of creative process involves generating possibilities for ideas, solutions, and actions to implement solutions. This involves free association and generating many different ideas as possible solutions (Eskildsen, Dahlggaard & Norgaard, 1999; James, Broderson & Eisenberg, 2004; Russ & Schafer, 2006). Establishing a list of possibilities requires divergent thinking from the individual, as well as interactions with others to share many different perspectives and stimulate new ideas. This is where the magic of creativity starts to emerge, as each combination of people and perspectives can generate new and different lists just from their interactions. This is most likely due to the unique sets of talents, experiences and expertise that each person brings and chooses to share with others. In addition, timing can influence this step; that is, the same group of people can meet at different times and generate new and different ideas
and solutions each time. Emotion emerges in this step as well, as people need to feel trust with others in order to share their perspectives. Especially if they are very different than the experiences of others, as being judged as ‘too different’ can bring in risk and punishment.

The third step involves convergent thinking; taking the list of possibilities and analyzing them to determine the ‘best’ one. This is when people compare and combine ideas that seem unconnected and make decisions about which ones have merit (James, Broderson & Eisenberg, 2004; Sternberg, 2007; Vinten, 1992). This step of the process is aligned with predictability and control prized by society and the workplace, so most adults in the workplace feel more comfortable in this step. However, adults in the workplace also make efforts to remove emotion from these decisions. From the findings of this study, it seems as though emotion is needed to help make ‘feel good’ decisions. It is the active engagement of intuition about the solution that can provide new insights as to what solutions will be seen as creative but others in society (e.g., customers, managers, colleagues, experts). As explained earlier, it is nearly impossible for humans to remove all emotion from anything; so why try? It is usually because some emotions might create difficulties (such as blind spots or irrational biases). However, by trying to consciously remove emotion, at least two results may occur. First, ignoring the information provided by emotion can still result in rational and logical solutions and actions; but that result in little change because people involved with living in the new solutions don’t really care. They are not connected with the new solutions. Second, ignoring emotion may overlook new possibilities where emotion can connect ideas. For example, trying to sell detergent in ways that make more money may have nothing to with the quality or price of the detergent; it may have everything to do with positioning the detergent as key to the health and well-being of your family members.
This means that people at that company could be working hard to improve quality or reduce cost, but the creative way is to invest in the marketing messages.

Because much of the business world has not found ways to fully comprehend and make sense of the emotional domain, much effort is made to remove emotional bias from decision-making. The default perspective seems to remove as much emotion as possible in order to make more rational decisions. However, such a blanket position for every situation means ignoring who we are as human beings and can lead to disastrous consequences. For example, the case of the Ford Pinto in the 1970s that is taught in business school; where all of the data showed what was a rational business decision to take the safety risks associated with the car engineering and design, but many of the people who were in the room remember ‘feeling not well’ about the decisions. The result was a number of deaths associated to that decision, and turmoil for the company. In that example, emotional connections were rationalized away. Findings from this study also highlight the importance of ‘feel good’ decisions. For example, Zachary talked about empathizing with customers who make emotion-based decisions:

The way your brain is wired, all your logic needs to be filtered through your emotional center in the middle of your brain, before you make the choice. It can’t just be the logical choice; it also has to be the right ‘feel good’ choice.

Yet, businesses try to remove the influence of emotion when making decisions; and over time, this pressure can result in ‘unlearning’ creativity. This perspective was articulated by Charles, “What really suppresses [creativity] is that you might be creative and come up with ideas, but then people shoot down those ideas and you no longer feel creative anymore.” Consequently, this researcher argues for more attention to be paid to emotion during this step;
and trying to better understand what it is trying to communicate, so that people can make better decisions.

The final step of creative process as defined in the workplace is implementing the ideas and solutions in order to address the initial challenge. To be successful, every creative process needs to have some kind of action taken, so that people can see if they are making progress on the challenge. Without taking action, creative process does not happen, as summarized by Bill: “Creative process [is] coming up with ideas that might address that underlying need, and then putting the best of those ideas into action.” Emotion in this step was referred to the ‘Ah-Ha’ moments, when all of the efforts and feelings during creative process came together to provide moments of clarity and direction. These moments are not only memorable (and some could say addictive), but also provide motivation for continuing the creative process for the current or any future challenge.

These moments seem to be very similar to what happens during the reflection stage of the experiential learning process, which is why this researcher argues that another step needs to be acknowledged as part of the creative process. Reflection happens after completion of the activity, which is when learners intentionally revisit the memories of the experience, work through the meaning made (including the attitudes and emotions that may influence that meaning), and make sense of the new ideas and information that may emerge (Boud, Keogh & Walker, 1985a). The three key stages in this active process of reflective exploration are returning to experience (re-engaging and recalling salient events in detail), attending to/connecting with feelings (using helpful feeling and removing obstructive ones to make sense of the experience), and evaluating the experience (re-examining the experience and using that interpretation to integrate/develop one’s own conceptual framework) (Boud, Keogh & Walker, 1985b). In essence, reflection is an
active effort to consciously make sense of the experience. The Ah-Ha moment in creativity can represent a connection to the experiential learning process; as it involves reflecting on the talents, activities and actions (from all domains of knowing) that were engaged during the creative process.

As creativity is part of being human, and emotion exists in the subconscious, this learning step will happen with or without conscious reflection. However, the learning can be more powerful and lead to more sustainable creative ability if time is set aside specifically to reflect on what was learned cognitively, as well as the feelings that emerged at different steps in the process. Facilitators from this study did not specifically state this concept; however, their comments about their behaviors and actions do support it. Said another way, they have built in practical ways to help people reflect on what is being learned during the learning events for creativity. Most of them build in time and use questions in subtle ways to help people reflect on what they are thinking and feeling. One particular participant, however, used a unique approach. Melanie focuses on helping people recognize the emotions that are present in themselves (bringing emotion to the conscious realm), in order to understand the bias that it might bring. As a result, she believes all learners can make better choices about the learning of creativity:

[I use] experiential learning activities [that] have to do with recognizing the space between the action and the reaction (all unconscious); because if it's impossible to open up that space to put in something new (and do it consciously), creativity becomes something only a few can do, rather than teaching everyone to do it at will.

To summarize, creativity as Person and Process involve emotion. As such, social pressures in society and the workplace have worked together to ‘train creativity out’ of people. Society tends to feel comfort in patterns, predictability and control. Emotion is positioned as
anti-predictability and control; and creativity is about challenging patterns. Creativity as Process provides structure to allow people to bridge between the social (predictable) world and their natural human (emotional) abilities. How this might work is discussed next.

**Learning Creativity Involves Unlearning Social Barriers**

Humans are emotional beings; they are also naturally creative, but there seems to be a demand (or need) by businesses for helping people learn creativity. Somewhere between being born and becoming an adult in the workplace, people somehow lose their creative ability. At the same time, people become accustomed to what is valued by society, such as rational and logical analysis in the cognitive domain of knowing; and many people spend less effort embracing the value of the affective domain. Could it be that the missing connection for people to retain and develop their creative abilities resides in the power of emotion?

Creativity involves questioning the world, exploring possibilities without restriction, and using what is found to share new interpretations of the current and future states. Children are taught to find the right answer, which discourages experimentation, risk and instinct (Mildrum, 2000); and as a result, they may internalize this manifestation and focus on producing conventional work (Brophy, 1998) and have premature self-censorship of ideas (Barak, 2006). This internalization can start early, and typically coincides with public education curriculum that emphasizes rational and logical analysis. For example, in one study estimated that creative ability diminishes by 40% between the ages of 5 and 7 (Kerka, 1999).

This link between diminished creative ability and public school curricula in the West seems to be more than coincidence. School curricula can be argued to represent the values of a society; and in the case of the West, intuition and emotion has been sacrificed for logic. Society has positioned emotionality is the antithesis of rationality, a mediator or distracter of rational
thought, unpredictable; and therefore, something to be avoided or ignored (Crosetto, 2004; Getz & Lubart, 1999; Levesque, 1996; Mayer, Salovey & Caruso, 2008; Pirola-Merlo et al., 2002).

Paradoxically, society wants creativity, but society can be partially to blame for helping people ‘un-learn’ creative ability. Findings from this study highlighted this idea, as Vanessa summarized: “[People] have been practically trained [to focus on] criticism or evaluation of the idea; instead of the building of an idea.” In addition, Zachary uses a quote to directly hold society accountable. He stated, “Einstein said the intuitive mind is a sacred gift. And the logical mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift.”

These sentiments align with the literature. Western society has been found to suppress creative potential (Sternberg, 2006); by sustaining a series of experiences where creativity is not entirely supported, and leading to a conscious (or unconscious) self-censorship of creative ideas (Williams, 2002). This suppression of creativity carries through to the workplace, where adults are conditioned to abandon creative impulses and settle down to business (McCormick & Plugge, 1997); and those who are considered experts are granted power to make decisions about what is creative and valued, and what is not (Feldhausen & Goh, 1995). This creates a self-supporting system that makes it difficult for people who want to use their creative abilities to be successful. Emotion shows itself in this situation, as frustration can constantly emerge from being told that those abilities are not valued. Zachary also commented on this: “As a creative, I tend to not always follow [the] rules. And [companies] didn’t really value the role of artist that I brought to the party.”

Any effort to learn creativity in the business world needs to combat the pressures that society has built to suppress creative ability. Individuals involved with creative efforts in the
workplace must be able to manage the tension, conflict and emotional discomfort that emerge with not always knowing how to proceed in the midst of organizational demands for control and predictability (Spendlove, 2007; Zhou & George, 2003). From an experiential learning perspective, the facilitator is responsible for creating a learning environment that provides safety in challenging the status quo and in sharing perspectives. One of the primary tasks of the facilitator is to establish and continually sustain a physical, mental and emotional space to express and explore new perspectives and individual reflection (Boud & Miller, 1996).

The facilitators in this study have been proven to be successful in the eyes of their (business) clients; that is, over a number of years, they have been able to consistently sell and prove their ability to help others learn creativity in ways that help those businesses be successful. In addition, findings from this study have shown that these facilitators do rely on emotion in a variety of ways to help build and sustain this learning environment. They realize that affect represents information and judgment, and allow the space for people to engage and hold both in their conscious minds at the same time.

The affective domain is typically presented as a hierarchical model of perception, beginning with a willingness and ability to listen to information, then actively responding to that information, making a judgment about the value of that information, organize the information in alignment with existing values, judgment and behavior, and ultimately at the highest level, the willingness to revise organization, values, judgment and behavior as a result of new information (Krafhwohl et al.,1964, Shepherd, 2007). When it comes to learning and emotion, one can ask the question, “Which comes first? Does emotion convey meaning that people use as information and rationalize the meaning of that emotion; or is the meaning-making happen subconsciously and trigger emotion as an expression of what is learned?” That question is wrought with
positivistic undertones. Instead, this researcher posits that it doesn’t matter which comes first. Instead, it matters that one assumes that they are both are interacting, and exist at the same time. A better question might be: “How does a person hold both in his/her mind at one time in order to make sense of the situation? And, how does a facilitator help this during the learning process?”

There is an almost mythical property surrounding creativity; primarily because many people cannot explain it rationally. They simply ‘know it when they see it’. This researcher argues that people actually know it when they ‘feel it’. What makes it so challenging is that there is no fixed formula for creativity that holds true in the rational world. Instead, there is an element of variable unpredictability that makes creativity what it is. It might be because initially creative solutions tend to lose their relative novelty and originality through ongoing judgments based on dynamic criteria (Joy, 2004).

Society forces people to be predictable and to minimize the influence of emotions; but what if that is exactly what gets in the way of creativity? People seem to be amazed when they see other people follow their passions and go against the status quo in order to show others a different interpretation of that world. People are fascinated with creativity because it is different (relatively) to what they think they know or expect. That is precisely why creativity is so important; it links people to the emotions needed by their human selves, and it shows them that they are indeed human. That is also what creative process does. It provides a bridge between conscious and subconscious; between the world we have and the world we don’t fully see, and offers a new way of knowing that world. Creativity, whether a problem solving process, internal meaning making process, or a process to express an ideal vision, accomplishes the same end: connecting people with the human selves that they may have lost on the way to adulthood. It
makes them whole as people; and it is through connecting to one’s whole self that creativity can be accessed and take hold. This concept of whole-person is discussed later in this chapter.

**Affect Transforms Whole-Brain Thinking Into Whole-Person Learning**

In practice, the workplace that views creativity as a process tends to describe it as a structured approach to thinking. This is because the workplace is built on predictability and logic (Spendlove, 2007). However, viewing creativity as only a thinking process is limiting (Woodman, Sawyer & Griffin, 1993), and the facilitators in this study see some value in using emotion (and the information, judgment and other attributes conveyed by emotion) in making the creative process happen. Emotion is seen as helping to access intuition and inspiration, and to connect it with action. Acknowledging and using emotion transforms creative thinking into a process that engages more than a person’s cognitive capabilities, and includes the whole-brain. This section will first discuss how creativity requires whole-brain thinking and then how both thinking and feeling are integrated in the creative struggle. Next the ways that emotion helps the learning of creativity will be explored, including how relying on learned patterns of thinking (from expertise) can be loosened in ways that help creativity. This section will conclude with how reflection is important to the learning of creativity.

**Creativity Requires Whole-Brain Thinking**

The creative process can be described as a psychologically-defined thinking process that includes iterative cycles of divergent and convergent steps (Brophy, 1998; Clapham, 1997; Selby et al., 2005). Divergent thinking is about finding possibilities; convergent thinking is about determining the single best answer (Clapham, 1997; Runco, Dow & Smith, 2006). In the business world, one of the most common practices of creative process is built on a creative problem-solving thinking process; and a common metaphor used to explain the workings of this
divergent/convergent thinking process is ‘left-brain/right-brain’ or ‘whole-brain thinking’.

Facilitators in this study used this terminology often, such as Zachary, who commented on focus of each part of the brain: “What you need to do is to have that creative energy of the right brain within the structured framework of the logical left brain.”

Facilitators distilled this distinction into ‘right-brain’ (divergent or artistic thinking) and ‘left-brain’ (convergent or analytical thinking) as an instructional technique to help learners grasp and relate to the concepts involved in learning the creative process. Because the workplace tends to reward analytical thinking, the left-brain (convergent thinking) is typically more developed in employees and often given greater attention. For example, Vanessa, a facilitator from this study, summarizes this point: “[People] have been practically trained [to focus on] criticism or evaluation of the idea; instead of the building of an idea.” Generally-speaking, most facilitators of learning creative process typically start the learning process by over-emphasizing and engaging the right-brain (divergent thinking). However, recent research has shown that divergent thinking alone is not adequate for creativity (Donnelly, 2004). There is a role for convergent thinking in the creative process, as emphasized by Steve: “[Creative process] is very left brained methodical algorithmic process.” This suggests that if facilitators spend too much time or energy on simply generating ideas and very little on selecting and using those ideas in ways that can show progress on addressing a problem, then learners can lose interest and the facilitators can lose credibility.

Consequently, it is key that creativity involves balancing divergent and convergent thinking (Treffinger & Isaksen, 2005). Creativity as a whole-brain creative process still requires both types of thinking, as summarized by Geoff: “[There is a] generative part where all the ideas and possibilities come from and you’ve got to create another space for the critical part because
you have to also be able to discern good from bad.” Findings from this study reinforce this belief.

Also revealed in this study is that creativity may not be solely a cognitive activity. In fact, the instructional technique of explaining left/right-brain thinking may actually be an oversimplification of the original concept, as explained by Nadja: “[I] use the whole-brain thinking model devised by Ned Hermann, who divides the world into 4 thinking preferences – analytical/linear thinking, plus visionary thinking, plus interpersonal/emotional intelligence/relational thinking, and then finally organizing and planning.” It seems that in practice, the interpersonal, emotion, and relational elements were dropped from the left/right brain metaphor. This might be because the workplace does not have a logical way to predict or measure the value of emotion in the thinking process. Whatever the actual reason, it does pose an interesting situation. If the concept of whole-brain thinking is indeed the core of creative process, then the inclusion of relational thinking opens up the possibility that emotion might have influence in the process.

Findings from this study acknowledge that emotion interacts with both divergent and convergent thinking, although in different ways. For example, Vanessa said: “If you are using the left brain, you are almost like rationalizing the emotions. And if you are using the right brain, I think it is a little bit more of allowing the emotions to be what they are.” This suggests that the left brain (or analytical thinking emphasized by society) can over-interpret the information provided by emotion; and as a result, people might prematurely categorize feelings based on what is expected from past experiences. By engaging more freely with emotion without premature judgment, people may open up new ways of thinking, accept new perspectives and assumptions, and see new possibilities.
Emotion seems to communicate information or meaning that is important; and relying too much on rational cognitive thinking processes may dilute that meaning (Dirkx, 2001; Maclaren, 2004). How emotions help the cognitive process was explained by Geoff: “[When] you are being generative, [you are] probably more emotional than when you are doing the editing or the winnowing or the decision making parts…I think when you are editing…you want to be more dispassionate.” The fact that facilitators are paying attention to the influence of emotion in the creative process may indicate the importance that emotion may have in shaping the cognitive activities that are involved.

Consequently, emotion should be more explicitly acknowledged as part of the creative process. If divergent thinking involves generating new ways of seeing the world or thinking about a problem, then leveraging more than the cognitive domain is critical to open up new perspectives that facilitate divergent thinking. Emotion can provide multiple versions of knowledge, which can lead to multiple perspectives, and a more holistic understanding of the world (Dirkx, 2008; Lawrence, 2008). For example, an expecting father can read about what to expect during childbirth, the medical procedures involved, the general procedures for handling the baby once into the world, etc. However, the emotional experience that exists during the moment when he first holds his child is something that cannot be fully understood through rationalized cognition – it is felt; and it provides a whole new perspective on what love truly means. Connecting this example to the realm of creativity, engaging in creative process cannot simply be a mechanical experience. To produce creative solutions, people need to experience feelings such as fear, frustration, passion and inspiration throughout the stages of the creative process in order to use those feelings to interpret what makes something different than the status
In order to be an effective facilitator for learning the creative process requires one to be able to help learners engage with and reflect on these emotions.

By accepting the affective domain as part of the creative process, learners can access new ways of knowing; and use that knowledge to see new possibilities. Findings from this study highlight this perspective, as summarized by Nadja:

[Emotion may provide] access to inner knowing and conscious awareness. And it bypasses logical left-brain thinking. It’s a way to uncover multiple ways of knowing; because if we are just relying on the verbal to be creative, we are limiting our access to imagination, knowledge, wisdom and knowing. That is only one small part of our brain, and so we want to be accessing the unconscious, the imagination, the visual, the kinesthetic, the gut, the emotion. You don’t access all of those things with just the verbal…if you can include more than one modality in your learning experience, then you are augmenting the learning experience because you are giving people different ways of knowing.

As a result, the whole-brain thinking representation of creative process is incomplete. Instead, based on the findings of this study, this researcher argues for a ‘whole-person’ representation of creative process; one that consciously includes and addresses all of the whole-brain cognitive activities, as well as other domains of knowing (such as affect). To advance this argument, how affect as a way of knowing emerges in the creative activity is discussed next.

**Creative Struggle Involves Both Thinking and Feeling**

The creative process is sometimes viewed as an ongoing struggle that involves holding at least two perspectives at any single time: one that can understand and describe what currently exists and another that can understand and describe a different potential future. How well a
person can both hold and explore these perspectives simultaneously, referred to as cognitively and affectively integrating ‘order’ and ‘chaos’ by Sorenson (2006), is one measure of a person’s creative ability. To emphasize this point, Geoff said: “[To be creative], you have to have the tension between what you have and what you want…the creative process involves… a tension between play and discipline.” What is missing from the literature is a further exploration of the emotion involved in this creative struggle, and how that struggle can influence the outcomes of the creative process. Findings from this study did not explore this concept fully from a facilitator perspective, and additional research in this area should be explored.

What is known is people that master the tension inherent in creative process tend to have flexibility in changing perspective, tolerance for ambiguity, and take great pleasure and satisfaction synthesizing connections between seemingly disparate concepts (Horner, 2006; Kerka, 1999; Mumford & Hunter, 2005). This means that emotion plays some kind of role in accepting and handling creative tension. Facilitators of learning creative process have to find avenues to help people access their emotions in ways to enhance their ability to engage and work with creative tension. The purpose is to help people see the challenge in ways that are different, as said by Geoff: “When it is time to be creative is when it…is time to see things in new ways.” Similarly, Melanie added: “You have to take old beliefs or old behaviors that you once had and shove them aside, to let in new.” These steps are emotion. First, letting go of the old ideas requires taking a risk that at some level involves fear. Second, seeking out and letting in new ideas involves passion, hope, and maybe even frustration.

To develop these abilities for increased creativity means helping people find ways to access multiple perspectives (Berleson, 2005). Emotion is one example provided by facilitators in this study that can offer access to new and fresh perspectives for the individual. Emotion can
also open up new possibilities, as noted by Hillary: “Emotion…opens the door to ideas and facts, opens the door to me as the facilitator, and opens the door engagement in the whole process.”

Emotion can also be a source of information that provides direction on how to respond to a situation or problem. It usually happens faster than logical or conscious rational analysis, and can be positioned as a complement to cognitive processes, as noted by Zachary: “Emotion is more of your gut feel versus your logical assessment.” In addition, Bill emphasized that emotion can also provide information about the emotional context of a situation or challenge: “Emotions are a very good judge of a context and an environment, and very often one’s own emotions seem to reflect those emotions of the people around you.”

Finding new perspectives might be easier said than done, as society tends to reinforce status quo best practices; and that force of inertia can feel overwhelming to someone who is trying to break patterns of assumptions and see situations in different ways. One example of this is how many workplaces value the power of expertise, which can provide companies predictability and efficiency. How creativity interacts with expertise, and how emotion relates to that interaction, is discussed next.

**Practicing Creativity Requires Suspending Expertise**

Much of workplace activity is built on a set of routines (Barnett, 1999; Boud, 2001), and the exposure to, and competence in, troubleshooting these routines (i.e., expertise) can help expedite the problem-solving process. At the same time, expertise breeds familiarity with convention, can cloud judgments, and can hinder the ability to make new connections (Brophy, 1998; Jalan & Kleiner, 1995; Sternberg, 2006). While each person brings his/her own unique experiences and expertise to engage in the creative process, it is the influence of this expertise
that can interfere with the creative process. This paradox-like situation was summarized by Geoff:

[Being an] expert means you could do something quicker, more effectively, more efficiently or better than other people..[but] because [experts] know what they are going to find often don’t actually look at it. They are not actually paying attention…When it is time to be creative is when it is time to be inefficient. It is time to see things in new ways…Creativity is as much about forgetting and unlearning things as it is about learning new things.

As a key part of creative process, divergent thinking in particular may be influenced by expertise; where it becomes increasingly difficult to distinguish between original ideas and ideas drawn from memory (Runco, Dow & Smith, 2006). That is, our brains tend to encode and retrieve memories by using patterns developed over time, and these patterns are exactly what get in the way of a creative process (Lucas, 2001). For example, the findings shed light on the limitations of relying only on expertise was also mentioned by Steve: “Someone who has been trained in a particular area only has a lot of trouble in envisioning a way of solving a problem that is outside the box that they have been trained in.” At the same time, the outcomes of creative process are typically judged as creative (or not) by experts from that contextual domain (Csikzentmihalyi, 1996; Haensly & Parsons, 1993), which intimates that providing the expected (or expert) solution would not necessarily be deemed as ‘creative’.

People who practice creativity need to suspend the pressure to take action solely based on their expertise, and stay in a period of indecision longer than others (Kristensen, 2004). This suspension involves emotional risks, as individual’s identities can be strongly linked to their
personal expertise. In some cases, people can become defensive as they struggle to rationalize those risks, as described by Hillary:

[People feel] fear, uncertainty and doubt…but there is more tapping into the rational brain, than there is into the emotional part of the brain. So they are tapping into reasons why this isn’t working, so the emotional frustration is driving them to their rational brain. And for them, they are either in fight, flight or freeze.

People who pride themselves on finding the single correct answer to the question or best solution to the problem can lose themselves in creativity. Yet, creativity by its very nature focuses on many correct answers or possible solutions. It can be the skill of recognizing patterns and jumping ahead to ‘the answer’ (which has served the expert so well in the past) that actually causes frustration when others in the learning event are slowing down to avoid those patterns. And it is this frustration that can hinder creativity.

Being an expert can also limit a person’s ability to see things that are new and different, as commented by Vanessa, “As you become more of an expert, you lose some of the freedom to pursue and you lose some freshness.” To avoid defensive emotions, an individual ideally should have enough familiarity with the context in order to generate reasonably good solutions (Butler & Kline, 1998), yet be unfamiliar enough so that the individual can construct new combinations of relevant information (Van Der Veen, 2006). However, this may not be practical in the workplace, as people are hired and paid to develop and use their expertise. The solution might be similar to the creative struggle, as people need to find a way to hold both their expertise, and suspend it, at the same time.

Facilitators who help people learn creativity in the workplace must find ways to help people overcome the patterns that expertise creates. To learn creativity means figuring out how
to accumulate domain-specific knowledge (expertise) (Taggar, 2002), suspend judgment, and avoid the problems of bounded rationality that constrain perception of new possibilities (Hodgkinson & Healy, 2008). One way to do this might be through embracing emotion in specific ways. To help suspend patterned scripts of thought and to shift perceptions, the transformation of cognitive knowledge into meaning is facilitated by affect (Brief & Weiss, 2002; Gordon, 1976). How emotion can help with the learning of creativity is discussed next.

**Learning Creativity Requires Reflection**

Facilitators use systematic inquiry and make dynamic decisions to identify and determine effective learning activities that foster and guide the meaning making of the learner (Kambutu, 2004). They help people reflect on the emotions that exist and are felt during the creative struggle; while also suspending some of impatience that expertise imposes. Emotion is an expressive state of mental arousal that can prompt some activities and interfere with others (Crosetto, 2004); and furthermore, the existence of these emotions can have an impact on both the learning that happens, as well as the motivation to continue the learning process. Fear, frustration and anger were three of the most common feelings with negative valence involved with learning creativity that were discussed by facilitators in this study. Subsequently, facilitators need to help people address and/or embrace those emotions in order to learn creative process. One of the ways they do this is to incorporate pauses for reflecting on not only what is being learned, but also what is being felt during the learning event and during the practice of creativity.

One of the philosophical assumptions of this study is that creativity is learned experientially. Effective learning of creativity involves experiencing, reflecting and integrating knowledge from both cognitive and affective domains (Meredith, Fortner & Mullins, 1997).
The experiential learning process is built on practice, failure, feedback and reflection (Donnelly, 2004; Klimoski, 2005); and facilitators must help individuals actively recognize and engage with emotions during those learning experiences (Dirkx, 2001). For example, Hillary noted: “Emotion opens the door to learning, opens the door to bonding with the ideas.” In addition, Harry said, “People don’t learn unless they are positively or emotionally engaged.” Consequently, the affective domain must be acknowledged as a core foundation of the experiential learning process (Cafarella & Merriam, 2000; Dirkx, 2008).

Most facilitators advocate for some kind of reflection time, as described by Vanessa: “Letting things simmer in your unconscious, and let combinations and patterns form...It helps you get some cool insights about things and the insights allow you to have totally different thoughts – totally different ideas.” Similarly, Nadja adds: “[in the space where] new ideas lie dormant in the brain...That is a time to pause, reflect, and be open to new ideas coming to you.” Facilitators also address the emotional influence on learning creativity more directly. For example, Harry asks them direct questions: “[I] have them think about how they do feel when they are creative, and how they feel when they are not creative.” It is in this process that new patterns of meaning evolve, and in reflecting on these new patterns, meaning making happens (Helson & Srivastava, 2002).

**Facilitators Connect With Learners Using Affect To Aid The Learning Of Creativity**

In experiential learning theory, the learner is responsible for using and making meaning of the information and activities that he/she experiences (Lee & Caffarella, 1994). However, the facilitator plays a guiding role by finding ways to determine how to help each individual efficiently and effectively engage in the learning process. One of the ways that facilitators guide this effort is by embracing affect; and using affect to establish connections with the learners that
foster trust, which in turn establishes a stronger learning environment. Affective connections happen when facilitators are accurately recognizing and diagnosing the emotions that are being felt, expressed and/or demonstrated by the learner. A facilitator uses emotions to establish an emotional climate that enhances the learning process (Zembylas, 2007); and to do so, a facilitator needs to be constantly alert to the ways in which emotion is expressed, observed, described or shared by the learners and themselves (Boud, Keogh & Walker, 1985b). Findings from this study show that these connections help to build a learning environment based on trust; one where learners can apply and explore their natural creativity, and confidently share their own ideas and perspectives without being critiqued or analyzed. Consequently, facilitators need to proactively prepare for, recognize, and engage in affective connections to better facilitate the learning of creativity.

**An Emotional Learning Environment Based on Trust**

A facilitator continuously establishes a supportive climate for learning and failure (Boud & Miller, 1996); one where mistakes are considered a necessity in order to learn and grow (Guitard et al, 2005). Such a supportive learning environment is built on trust; one where people feel willing to try and failure without social consequence. As mentioned in the findings from this study, engaging in creative process in the workplace involves overcoming negative emotions such as fear and frustration. Without trust, these emotions will hinder the learning of creativity. For example, Penelope stated, “[It is very important to creativity that people] feel very safe and able to share their thoughts and ideas.”

All human experiences have an emotional component and this emotional component can help or hinder learning (Crosetto, 2004; Maclaren, 2004). In order to learn, facilitators are encouraged to help individuals actively recognize and engage with emotions during learning
experiences (Dirkx, 2001). As discussed by many participants in this study, emotion is part of all human interaction and facilitators need to pay attention to that emotional context. For example, as Geoff said, “Awareness of that [emotional] context can help you be more productive and just to know what’s going on.” Facilitators interpret emotion that is expressed or demonstrated by learners, and use that knowledge to select, order, and dynamically maneuver learning interactions and activities that best help learners learn (McCaughtry, 2004). Facilitators create an emotional space for learning to happen (Boud & Miller, 1996), and provide feedback that includes emotional, inductive reasoning (Michael, 2004). Findings from this study support this claim, as exemplified by Vanessa’s comments: “[I] think about the people…what they need emotionally to support their learning…I think it is really important…that you are using your head and…your heart and…your gut, in order to help you facilitate.”

To engage in the learning of creativity, learners need to trust the facilitator, and the facilitator needs to earn that trust. While emotional connections between a learner and a facilitator are not required for learning to happen, it seems as though those connections help the learning process to occur. This is especially important for learning creativity, as they allow for people to overcome the fear of sharing perspectives, interpretations and experiences of the world (Chernin, 2002). Building such a trusting learning environment needs to be initiated and sustained by the facilitator. Similarly, Nadja said: “[I] spend a lot of time observing the dynamic changes in emotional connections during the class. My job is to…to track what is going on energetically and emotionally in the group and respond to that.”

The data collected in this study shed light on this emotional space. It seems to be a conscious effort by the facilitator to acknowledge the emotions that the learners are experiencing; allow them to exist without disregarding, suppressing, or judging them, and to make them more
explicit to others in the learning event. The facilitators in this study each have plenty of experience in both the practice and the learning of creativity, which seems to afford them the patience to demonstrate empathy and support for the myriad of emotions that accompany creativity. They establish a metaphorical shelter against the constant barrage of self-critique and idea-analysis pressure that exists throughout the workplace. To create this space requires trust so that participants can express and explore their innate creative capabilities.

**Freedom to Share Natural Creativity**

Most facilitators in this study seemed to agree with the literature in viewing creativity as a characteristic innate to every human being at birth (Brophy, 1998; Pritchard, 2002; Smith, 2005), and that each human being can find/foster innate creativity (Lucas, 2001). For example, Geoff commented: “I happen to think that people are just naturally creative.” In addition, they felt that engaging in creativity is a natural, and emotionally intense, experience, as expressed by Harry: “[Creativity feels like] being really human, really alive, fully alive.”

At the same time, facilitators also believe that the systems and priorities set by society and the workplace work together to ‘train-out’ natural creative ability. As mentioned earlier, organizations demand control and predictability (Spendlove, 2007), but creativity involves breaking conventional wisdom (Zhou & George, 2003). For example, Bill stated: “[Businesses] want creative process, but very often businesses are designed…for relative predictability with is actually the opposite of creativity, which involves unpredictability.” Similarly, Geoff added, “Creativity is the enemy of consistency and repeatability and predictability and reliability.”

Consequently, these systems result in learned behaviors that restrict and suppress creative tendencies, and create tension, conflict and emotional discomfort for people who want to develop their creative abilities. Instead, people seemed to be conditioned by society and the workplace to
focus on logic, critique and analysis, and less on possibility and intuition. In order to regain and relearn natural creative ability, adults have to find ways to actively disengage influences (such as these) that block creativity (Michael, 2004). One way to do this is through affect.

People who are learning (or re-learning) how to practice creativity in the workplace need to feel safe in doing something new and different; and need to feel safe in sharing their novel perspectives, ideas and solutions. Creativity involves challenging the status quo; and the business environment creates systems to maintain the status quo, so learners need to feel supported when they learn to challenge the systems that fight against change. In the context of creativity, facilitators have the difficult task of enabling employees to share their own experiences, and engage with/reflect on the experiences of others in order to accept alternative ways of understanding (Boud, 1994; Boud & Knights, 1994). How well the learner feels supported in that environment can be a direct reflection on how well the facilitator has addressed (consciously or subconsciously) the underlying fears, frustration and passion that is being experienced by the learners. Building from the ideas of McCaughtry (2004), this study illustrates how a facilitator needs to listen for and empathize with the emotions (such as fear and frustration) that are being felt, observed or expressed. From there, a facilitator can initiate group interactions that allow and stimulate openness, honesty and exploration (Scott, Leritz & Mumford, 2004; Sundgren & Styhre, 2003). As a result, learners are more likely to overcome the fear of sharing different perspectives, trying new things, and challenging the status quo (Chernin, 2002; Dombrowski et al., 2007; Janetski, 2007; Mumford & Hunter, 2005).

As employees, people are conditioned to continuously assess the quality and value of work (Worthington, 1994). When trying to learn or practice creativity, facilitators in this study try to establish a learning environment that allows people to suspend premature assessment, and
feel comfortable in sharing their own unique and novel (creative) ideas. For example, Charles stated: “You really [want to] set the atmosphere that it is safe and... ok to share different opinions.” In addition, if people see that it is acceptable to challenge existing thinking patterns with seemingly ridiculous ideas without being humiliated, they are more willing to explore their own creative talents (Durant, 2002; Shalley, Zhou & Oldham, 2002). One of the key techniques discussed by called this a Yes/And mentality, as highlighted by Lydia: “Withholding the judgment is like hearing people out first, and then consider it – [that is] a yes/and mentality.” When socially-driven judgment is suspended, people are more willing to share their unconventional and unusual (creative) ideas (Williams, 2002). Furthermore, emotion seems to provide a way to help people unlearn the socialization and re-engage their creative selves, as mentioned by Hillary: “Emotion… opens the door to bonding with the ideas, opens the door to ideas and facts, opens the door to me as the facilitator, and opens the door engagement in the whole process.”

Findings from this study show that emotion is a critical component of passion. Participants in this study seem to agree with the literature that passion is critical for individuals to engage in and learn creativity. For example, Geoff mentioned: “Passion and energy and what I would call purpose or spark is hugely important... nothing really happens unless people care.” Once people are provided a safe outlet (by facilitators) where they can develop their creative ability, they are free to engage with the emotion (passion) that drives their creative activity. Passion is needed to initiate and sustain creative activity. It involves a challenge that arouses curiosity and triggers affective pleasure (Lubart & Getz, 1997); and it is that affect that works to persistently keep that problem in the forefront of consciousness (Voss & Means, 1989). From the study, Bill said: “I don’t think [people] will be really creative or innovative without
being passionately involved in what they are doing and caring greatly emotionally about the topic they are trying to innovate against.” One of the key uses of creative ability is to create a change in the world - to initiate and realize an important change in the world (Csikszentmihalyi, 1996). Furthermore, passion (sometimes called inspiration) is needed to persevere through the inevitable obstacles inherent in creative work (Sorensen, 2006). To support this, Vanessa noted: “[Creativity happens when] people are genuinely and authentically interested in the ideas and having something happen as a consequence of getting together to ideate.”

Facilitators Focus on Positive Emotion and Minimize Negative Emotion

Both positive and negative affect exists in the creative process, and in the learning of creative process. Creativity is filled with the excitement of discovery, anxiety with challenging the status quo, drudgery of hard work, frustration with obstacles, and anguish of failure (Pirola-Merlo et al., 2002; Zhou & George, 2003). From this study, Harry noted: “Most people feel really, really great when they are creative or innovative, and they feel really, really bad, or unrealized, when they are not creative or innovative.”

To help people learn (or re-learn) creativity, this study revealed that facilitators seem to emphasize the positive emotions that occur during creativity and the learning of creativity. More specifically, society has conditioned people to discount emotions from day to day work activities; and have consequently created an environment that contains emotionally-starved people. As a response, facilitators seem to have found a way to engage people in creativity (and learning creativity) by emphasizing experiences that focus on positive emotions. At the same time, in order to build trust and confidence with the learners, facilitators also acknowledge the existence of negative emotions in the creative process, but offer tools, tips, and techniques to help learners
reflect on those feelings, and shift the energy from those feelings into a more productive
direction.

**Participants Seek Positive Emotional Experiences**

Practicing creativity seems to be hard; and learning how to practice creativity is even
harder. Adults in the workplace who want to learn (or re-learn) their creative abilities seems to
be a key hurdle to overcome. Showing up to a learning event ready/wanting to learn creativity is
an important first step. For example, Zachary said: “Best case scenario is when people…are
coming by their own choice. They want to be there.” Similarly, Nadja added: [The] worst case
scenario is when people don’t want to be there.” This is most likely because experiential
learning requires active effort and choice by the learner; and experiential learning of creativity
involves active ‘un-learning’ of constant social pressures to maintain status quo. Those who
make the choice to be there are more willing to try something new, but they also want some kind
of return on their investment to learn. As a result, simply learning knowledge or skills is not
enough of a reward for a learner’s time; they want to ‘feel good’ about what they are learning
and have fun learning it. Through observations made in this study, one way facilitators have
learned to support this is by assembling a suite of activities that create fun, laughter and
playfulness. This may be because laughter can provide an emotional release from affect present
in creative process, and may represent the release of energy from nervousness, fear, frustration,
or the recognition of a pleasant shift in psychological meaning or interpretation (Cundall, Jr.,
2007).

While the literature is still debating the theoretical influence of positive and negative
affect on creativity (Zhou & Shalley, 2008), in practice facilitators know that to have an effective
learning experience means helping learners learn, and helping them feel good about what they
learned. This practice might be based on factors that influence learning (e.g., people learn and remember better when experiencing positive emotions), factors that influence creativity (e.g., creativity is better accessed through experiencing positive emotions), financial reasons (e.g., clients who feel good about the learning experience and are willing to pay for more consulting/workshops), or some combination. The literature supports much of these factors, as it was found that experiences of certain positive emotions access memory in more diverse and extensive ways (Amabile et al., 2005); and that positive emotions may enhance creativity (Isen, 1999).

What seems apparent is that each facilitator in this study has found financial success by developing his/her own way to integrate these factors and reasons; and affect seems to play the role of connector. This might be because affect can influence the learning process and influence the process of creativity. For example, emotions can enable or prevent creative efforts (Averill, Chon & Hahn, 2001); and experiences of certain positive emotions may enhance creativity by allowing better access to the neural networks that encode relatively novel and unusual associations (James, Broderson & Eisenberg, 2004), and can access memory in more diverse and extensive ways, which can lead to novel, creative, playful and often unscripted paths of thought and action (Fillipowicz, 2006). As revealed in this study, facilitators seemed to focus on the positive emotions that they found in learners; and explored ways to leverage those emotions for both creativity and learning results. How positive emotion was used differed depending on the perspective of the facilitator and the purpose he/she is trying to achieve. For example, some facilitators like Bill focused on leveraging positive emotions to help with learner confidence and an attitude of possibilities: “Positive emotions [leads to an attitude of] anything is possible, we’ll give something a try and see where we go, are going to be predispositions for positive
creativity.” Others, like Nadja, emphasized how experiences that generate positive emotions can help change thinking: “Laughter and playfulness, having fun...those kinds of things stimulate endorphins in our brain; and when those endorphins are released, that opens up new passages for creativity”. Still others, like Charles, targeted helping people feel empowered by practicing the creative process: “When [people] are creative, they feel happy, they feel engaged, they feel motivated, they feel empowered.” No matter what the primary reason(s) held by the facilitators, it seems clear that if they incorporate positive emotions successfully into the learning of creativity, it leads to financial results for them.

One consistent method of generating positive emotional experiences during the learning of creativity is through identifying and reveling in the infrequent and/or random ‘Ah-Ha’ moments that occur. These ‘Ah-Ha’ moments are points where progress in both learning and creativity are expressed simultaneously. These are moments where new learning is realized; and something that was previously un-connected and seemingly impossible to understand or reconcile using previous experience or logic, becomes more clear, possible, and meaningful. Based on this study it seems to be a moment where the learning is so raw, so close to the subconscious, that people feel the sense of amazement, happiness, and joy. For example, Hillary referred to the connections between creativity, magic and joy, “Creativity being the ability to solve problems; the magic is the inexplicable connections or unexpected connections and joy...includes success...and...curiosity.” It also seems that creativity itself survives because it evokes the experience of these moments; and consequently, learning of creativity survives because of the positive emotional experiences of these moments that are remembered. Most facilitators in this study emphasized the importance of the feelings generated during these moments had on the learning of creativity, such as Zachary: “You kind of live for those
breakthrough moments. I call it the endorphin moment, because it is your brain that goes *holy shit, I know how to save the world.*”

As this study focuses on learning more about how affect can influence the learning of creativity, eliciting and recognizing these Ah-Ha moments seems to be critical for facilitators. They seem to shine like beacons for learners, providing confidence, direction, and even motivation to continue through the more difficult parts of the creative process. Without these moments, creativity becomes either a mechanical set of procedures that generate little sustainable learning results, or a set of learning experiences that are not very memorable. The positive emotions generated by these moments create the foundation for stronger memories and enhanced meaning making that can help learning and creativity survive amidst the pressures that society uses to train out creative activity.

**Negative Emotions Limit Choices and Hinder Learning of the Creative Process**

While some literature argues that negative emotions, such as those stemming from dissatisfaction with current state or conflict within teams, can help motivate someone to be creative, it seems that in practice, negative emotions do more harm to the creative and learning processes than help them. For example, Bill noted how negative emotions can limit inspiration. He stated, “Negative emotions are feelings that things that are impossible, a mood of rejection, a mood of resignation…and are not going to be likely to inspire people to come up with new ideas.” In addition, Charles talked about how negative emotions limit thinking about possibilities. He stated, “I think that people that are more close minded, and judgmental and angry at the world have a tougher time thinking differently or doing things differently.”

Negative feelings can manifest from going against societal pressures for status quo. Feelings such as anxiety, fear, frustration and rejection are common by-products of creative
effort, as explained by Hillary. She stated, “Going into any problem solving…[people feel] fear, uncertainty and doubt, high anxiety…[and can lead to] fight, flight or freeze.” These feelings can recur during the process as well, as noted by Nadja: “There can be a lot of frustration in creativity…You have an idea,…but when you start moving into action, you run across one roadblock after another.” Even when the process results in a successful (creative) solution, the social recognition of it can be slow to be realized. Many times, because the world may not realize (or fully understand) an advanced or alternatively valid way of thinking, creative and novel ideas are initially rejected (Sternberg, 2006; Lubart & Getz, 1997). As a result, people can lose the inspiration needed to persevere through the inevitable obstacles inherent in creative work (Sorensen, 2006).

Negative feelings also can hinder the experiential learning process itself. Two key components of experiential learning, choice and proactive engagement by the learner (Garrick, 1999; Lee & Caffarella, 1994; White, 2005), are impacted by negative emotions. Negative feelings in the experience can distort perception, evolve into false interpretation, and undermine the passion to persist (Boud, Keogh & Walker, 1985a). In addition, by limiting choice and perspective, people can shift from active learning to self-preservation, as noted by Melanie: “What stops us from having choice is that we get stuck in our unconscious beliefs and emotions, and we get stuck in self defending.”

Because of the detrimental effects of negative emotions involved in creativity, learning, and learning of creativity, most facilitators in this study made conscious efforts to emphasize the positive emotions that can create motivation and satisfaction. That said, facilitators also believed that negative emotions always exist in the context of creativity, and did not ignore them. Instead, they tended to help learners acknowledge their existence, and then quickly offer new ways to
think, act and behave that helps shift the energy from the negative emotions into something more productive. This is probably because people need support to help battle the inertia of the status quo; otherwise they would not have ‘un-learned’ their natural creative ability. This is where facilitators earn their money; they provide a trusting environment where people are free to re-engage with their natural creative selves, and rebuild the capability (and confidence) to be creative without battling that inertia. If facilitators do their job well, then learners will build enough capability and confidence to continue using the process outside of that learning environment. However, most learning events discussed among participants in this study were relatively short in duration, e.g., 2-16 hours; and social pressures working against creativity are 24x7. Therefore, facilitators need to rely on something more than logic and cognitive abilities; because it would not be considered rational for people to fight such a constant battle against negative affect. To help, facilitators seem to leverage positive emotion to create the sustained passion to continue to develop creative ability.

Implications for Practice

As a result of the discussions in this chapter, it seems clear that more is known about the influence of emotion on creativity, on learning, and on the facilitation of the learning of creativity. As the nature of this study involved people who facilitate the learning of creativity, many examples of practice were described and observed. From the perspective of affect, three primary implications for practice emerged from the literature and findings discussed in this chapter. First, facilitators should be planning for and integrating space for reflecting on emotions during and after creative activities. Second, facilitators should recognize and shift emotional energy that is observed and expressed by learners during creative process towards positive
energy that helps to move the creative process forward. Finally, the use of humor and laughter needs to be a key part of helping people learn and practice creativity.

**Create a Space for Reflecting on Emotion**

Based on the arguments discussed in this chapter, emotion needs to be included in the design and practice of helping people learn creativity in the workplace. It is the meaning that emerges from reflection can be used in ways to help learners progress through the creative process. Historically, the learning of creativity in the workplace has focused on cognitive outcomes because they are the most accepted and predictable (Runco, 2004). As mentioned earlier, emotion simmers in the unconscious, so there may be a connection between reflection and emotion that has not yet clearly emerged. Emotions can reflect subconscious judgments, and these judgments can influence how creative activities are encoded into memory. Consequently, facilitators need to create the space for learners to experience emotion in the creative process, and to help learners reflect on those experiences in ways that allow meaning to emerge from the subconscious to consciousness. It is important that facilitators recognize when emotions are present in the event, and engage the learners to help recognize how those emotions might be helping or restricting creative activity. From the findings of this study, successful facilitators of the learning of creativity incorporated two types of reflection with emotions: reflection-in-action (on emotions felt during the process) and reflection-on-action (on emotional judgments about the outcomes of the creative process) as they were engaged in the creative process.

**Reflection-in-action.**

The first practice focuses on reflecting-in-action (Schon, 1983). Facilitators need to create and select activities that not only allow, but demand learners to express their emotions during the practice of creativity. As ideas and solutions are being explored, finding ways to help
people spontaneously express emotional reactions in a productive way can help people discuss the information that those emotions are conveying. What is critical in designing such activities is that people need to have some rules that position these expressions as collaborative (i.e., ‘building on ideas’), and not personal critiques (i.e., ‘tearing down ideas’). As mentioned earlier, a trusting environment is important for sharing personal, unique perspectives; and society has already taught people to be analytical and finding ways to say new ideas won’t work. To create such an environment, facilitators should use activities (throughout the event, but especially at the beginning) that create collaboration and trust amongst the learners and between the learner and the facilitator. These activities do not have to be related to the context of creativity; but need to be focused on helping people learn and share more about each other. Sometimes this can come from activities designed around shared competition, where teams have to rely on each other to be successful. Other times, a facilitator can share an experience where he or she is made vulnerable, so that the learners see that being vulnerable is not seen as a weakness. The ultimate goal for these kinds of activities is to create a sense of emotional connection and empathy, so that people feel willing to overcome internal self-censorship, and share new perspectives without being embarrassed or ridiculed.

Facilitators need to recognize the influence of self-censorship and negative feedback that tends to discourage creativity (Williams, 2002), and reward those who solve problems in conventional ways (Brophy, 1998). Facilitators might focus on building trust through giving attention to positive emotions rather than risk making people feel critiqued when trying something new and/or sharing new possibilities. In this situation, it is important to note that a label of positive or negative emotions is not an absolute judgment of the worth of the emotion. There are no emotions that are always good (positive) or bad (negative). Instead, the label can
be influence by the context. What is more important is to clarify is that the label of positive or negative symbolizes the influence of the emotion in a particular context (e.g., positive emotions help people accept and search for different possibilities; negative emotions close down possibilities).

That said, assuming that positive emotions are engaged and negative emotions avoided when learning creativity is an oversimplification. It is better said that facilitators acknowledge negative emotions that exist in the creative process by bringing them to the forefront, and shifting that energy into something productive by focusing on the positive emotions that are present in passion, hope and joy in order to entice people to engage in the creative process. In some ways, the negative emotions are needed in the creative process so that the positive emotions stand out more significantly. Consequently, facilitators shouldn’t try to sugar-coat the negative feelings inherent in creativity.

Facilitators need to recognize that critiquing responses are typically the initial reactions that will be expressed; so they can’t be ignored. Instead, facilitators can give different types of “feelings” a simple phrase that is non-threatening to the individual, and start by having people share how many times they want to express those feelings when certain ideas are shared. For example, a matrix that shows idea or concept on the left hand side, and a list of feeling phrases along the top (e.g., ‘too risky’ which aligns with fear, ‘really cool’ which aligns with inspiration, etc.) could be used first by individuals to track their own reactions, then over time, be used by the group to share their reactions. Paramount to this idea is that learners are recognizing the emotion inherent in thinking about different and new ideas while they are being shared; and then using that reflection to see new possibilities and what is holding them back.

*Reflection-on-action.*
A second practice focuses on building confidence in creative ability through reflecting-on-action (Schon, 1983) of the emotional judgments of the experience of the creative process. Emotion can be a judgment that influences the learning and meaning made from an experience, and over time, negative emotions associated with creativity can cause people to avoid or shut it off. Contrary, positive emotions can create the opposite impression.

Learning creativity is not a quick activity, but an arduous undertaking (Donnelly, 2004; Ramocki, 1994; Van Der Veen, 2006). This perspective was supported by this study, as articulated by Nadja: “The creative process isn’t always a happy, invigorating, enlivening experience. Sometimes its painful and arduous and exhausting.” Consequently, people who practice and learn creativity will make emotional judgments about the experience. By acknowledging and celebrating the Ah-Ha moments inherent in creativity, the agony of creativity is balanced by the ecstasy of creativity, and the energy to move forward is sustained.

This involves tracking the ‘Ah-Ha’ moments during the creative work, and expressing why they are considered ‘Ah-Ha’ moments. As discussed in this chapter, creativity and emotion may be connected at a subconscious level, from which Ah-Ha moments emerge. Ah-ha moments come from consciously recognizing when new ideas and solutions connect with being confident in selecting the one that actually makes a difference. Experienced facilitators can help learners identify key learning points to achieve, and then keep selecting and engaging in activities until the Ah-Ha moment occurs.

For beginners in the learning of creative process, reflection activities will have to be purposeful pauses initiated by the facilitator. These are times when the facilitator will intentionally stop the work and attention of the learners in solving the problem, and shift that focus and attention to what they are learning and feeling as a result of the creative activity.
Some of these reflective times will be scheduled to align with transitions in the creative process, while other times they will be spontaneous based on assessments of the facilitator that a ‘learning moment’ is happening. Over time, it is hoped that learners will build confidence in their ability to be creative, because they can see the evolution of ‘Ah-Ha’ moments and the meaning that they are conveying. Consequently, as their confidence in their abilities grow, they will be more likely to overcome some of the fear and frustration inherent in practicing creativity in the workplace when the facilitator is not there to support them.

**Shift Focus to Positive Emotion and Productive Energy**

Creative process involves a constant tension between focus on solving a problem and doing so in a playful and generative way. As such, this tension reflects an ongoing struggle between feeling overwhelmed, discouraged, excited and joyful. As discussed in this chapter, facilitators need to help learners recognize when emotion is hindering creativity, and to help them shift the energy into something more productive. To do this, facilitators first need to pay attention to behaviors and expressions made by the learners. They also need to look for evidence of different emotions at different stages of the creative process. At the start of the process, expressions of fear (e.g., resistance, critiquing) need to be met with finding ways to link to inspiration for change that is meaningful to those learners. In the workplace, this is sometimes accomplished by selecting an important work challenge that needs to be addressed.

As the process continues, facilitators need to recognize frustration, and quickly shift that emotion towards a passion to help sustain the creative effort. This passion is a connection between the inspiration to start and the compelling effort to take action. In some instances, this might involve connecting to the importance of the initial challenge and its potential outcomes; in
other instances, the facilitator might focus on the importance of the learners themselves in being the best group of people to address the challenge.

During generative or divergent activities, distrust and anxiety of taking risks in sharing ideas may emerge. When that happens, facilitators need to shift towards excitement. For example, utilizing playful and fun activities that social and competitive can allow the nervous energy to dissipate. Another way is to highlight a few of the new and unusual ideas or solutions that were shared; discuss their uniqueness, and help learners see their value to moving the process forward. During selective or convergent activities, learners may shift into a state where they are consciously trying to suppress emotion and what that emotion is trying to communicate, which is more comfortable in the status quo workplace. During these instances, facilitators should be highlighting the emotional criteria to be used when selecting, in order to generate best solutions that also ‘feel good.’

As discussed in this study, creativity also involves periods of time where judgment has to be suspended in order to allow for further exploration of new ideas and possibilities. Learners need to be allowed to swim in this sea of tension and uneasiness of indecision in order to build skills needed for creativity. This is risky and scary for the learners, so facilitators need to help them recognize the Ah-Ha moments, and then allow them to revel in the joy of what those moments mean.

**Take Advantage of Humor**

While creativity can be hard work, it needs to include fun as well. From the literature and findings from this study, humor and laughter can be a way to maintain that balance, as well as release subconscious emotions in productive ways. While humor may or may not help creativity, it seems to remove some of the emotional barriers to creativity. Laughter may be an
indication of humor, but may also be an output stemming from a release of energy such as nervousness, fear, frustration, or the recognition of a pleasant shift in psychological meaning or interpretation (Cundall, Jr., 2007). As such, facilitators should pay attention to when humor is used and laughter is expressed, as highlighted by Bill, “I teach everybody to listen for the laughter…when somebody laughs at an idea that seems totally ridiculous, it is probably very valuable.” From a social perspective, the presence of humor and other positive emotions may help release tension, defuse anger and promote a healthy exchange of ideas, which enhances the possibility of creativity (Holmes, 2007). In addition, Nadja provided a possible physiological reason to pay attention to laughter, “Laughter and playfulness, having fun…those kinds of things stimulate endorphins in our brain…that open up new passages for creativity…our brain is relaxed. And it allows for imagination to be present.”

With all of the existing challenges working against creativity, such as the fight against the status quo and the fear of being critiqued, seeking humor and laughter may help learners channel negative affect in ways that do not hinder creative effort. As such, facilitators should include activities that generate laughter; not as gratuitous humor, but as a learning tool that helps people move forward in the creative process. The type and level of humor used would depend on the type of laughter needed. For example, if there is tension in the room, humor that is simple and mindless (e.g., the 3 Stooges), might distract people’s minds in ways that clear the barriers causing the tension. On the other hand, using more sophisticated humor tools, such as improvisation comedy techniques, might create more focus on a particular situation with which learners are having difficulty engaging.
Limitations of Study Findings

While the findings of this study are helpful in understanding the influence on affect on facilitation of learning events for creativity, they are by no means absolute truth or necessarily a generalization for all facilitators or situations. At least three key limitations exist.

First, two interviews (and in some instances, only one) and a single two-hour observation of a facilitator in action is certainly not adequate to experience or capture all of the nuances involved in facilitating the learning of creativity. The uniqueness of the setting, the groups of people who are participating in the event, and the recent experiences of the facilitator themselves are just a few of the variables that could influence the data that was captured. Consequently, the data analyzed could be based on incomplete or non-typical situations.

Next, the selection criteria for this study specified that participants have at least two years experience facilitating learning events for creative process in the workplace, and that they believe emotions and expressions of emotions are a key component to the creative process. While the former criteria is more straight-forward in demonstrating, the latter can be open to interpretation by both the participant and the researcher. Practitioners in this field have a wide range of exposure to different fields of study, and using a term such as “emotions or expressions of emotions”, can be interpreted differently. While this study used specific definitions based on the literature and supported with practical examples, there is still potential for misaligned interpretations between the researcher and the participants. In addition, the observation of emotion can be recognized and described differently between participants, and between the participant and the researcher. For example, the researcher could only be looking for behavioral examples of emotions based on the literature, and neglect to ask more effective follow up questions that help the participant better articulate the emotions and emotional context that
existed. Consequently, the data is not a complete representation of the full influence of emotion on the learning of creative process.

Last, as inherent in all qualitative research, this researcher’s own bias is inherent in the review, analysis and interpretation of the data. While steps were taken to ensure accuracy in the data collection and transcription; and to ensure trustworthiness in the representation and theme selection, the interpretation of this researcher does include a product of his own experiences. He is a trained facilitator with almost 18 years experience in education in the workplace; and he has been studying creativity in the workplace for almost 13 years. Therefore, even if consciously trying to approach data analysis and interpretation with an open mind, the selection of what to ‘see’ in the data, and what to ‘say’ about what the data means will inherently be influenced by his own experiences.

**Suggestions for Future Research**

The findings from this study reinforce some of the findings from previous literature, and also provide new insights into the role of affect in facilitating the learning of creativity. At the same time, the findings of this study also provide a platform for new questions and possible studies. Three key opportunities are described next.

This study was a general qualitative study that looked for themes across all participants. Because of that structure, a deeper understanding of how each facilitator developed those influences was not captured. By obtaining a deeper understanding of each individual facilitator, such as their own background, experiences, learning, and practices, it might be possible to identify key experiences that influence (or even create profiles) of what produces a successful facilitator for the learning of creativity. This would most likely involve a narrative study that follows a facilitator through at least one entire facilitation process (e.g., selling, preparation,
delivery, closure), and would involve more interviews and longer observations. At the same time, the data would be analyze within the experiences of each individual facilitator, rather than across facilitators (like this study).

Another unanswered question involves the creative process. There must be successful facilitators who help people learn creativity in the workplace who do not necessarily subscribe to creativity as a Process. Are there unique differences in how emotion influences them as opposed to those in this study? To help answer this (or similar) question, the basic structure of this study could be followed; however, a more stratified sample of facilitators who have different frameworks for viewing creativity could be included. The data would then be analyzed within groups and across groups to look for similarities and differences in how affect influences their practices.

A final question is how does affect influencing the facilitator relate to the affect experienced or influencing the learner? While participants in this study were specifically identified as successful and longer-term practitioners, that success may only be based on impressions of results or actual solutions produced, rather than the learning that takes place. By looking at this relationship, a connection between the affective influences on learning of creativity may emerge. This could be approached as a mixed methods study, involving interviews of the facilitators and learners, observations of a series of events, and tracking of results. The data could be analyzed to see if there are certain types of emotion-laden activities that generate the most sustainable learning of creativity.

While there are many other possibilities, these questions seem to be important to further the understanding of how affect influences the learning of creativity. The existing literature acknowledges that emotions do have some influence, and this study provides a few specific
examples of how facilitators use affect to help people learn creativity in the workplace. Using these findings, new research can further the knowledge and understanding of both the creativity and learning fields.
Appendix A

Selection Criteria

• At least 2 years facilitating learning events for creative process in the workplace
• Believe emotions and expressions of emotions (e.g., anger, sadness, nervousness, happiness, fear, surprise, love) are a key component of creative process
• Typical class size of at least 4 people; with learning events of at least 2 hours
• Willing to commit to the research process, which involves a short interview, an observation, a follow up interview and review of results for verification.
Appendix B

Interview 1 Guide

Timeframe: 45 minutes

Demographics

Gender:

Primarily facilitate creative process as external consultant or within own company (internal):

- Years as a facilitator/teacher (primary activity for your role):
- Years facilitating the learning of creative process:

Current Beliefs & Assumptions

- Please share a description of the creative process to which you subscribe.
- How did you learn the creative process?
- How do you describe emotion as it exists in the creative process for you? What does creative process feel like for you?
- How do you observe emotion in others during the creative process? What do you look for?

Preparing for Learning Events – Expectations & Intentions

- Typically, in facilitating learning events focused on creative process, how does emotion influence how you prepare yourself and your students?
Typically, in facilitating learning events focused on creative process, how does emotion influence what you pay attention to during the events?

How would you describe a best case scenario in facilitating learning events focused on creative process?

**PROBE:** What does that feel like for you before, during and after the event?

**PROBE:** What emotions do you notice in students before, during and after the event?

How would you describe a worst case scenario in facilitating learning events focused on creative process?

**PROBE:** What does that feel like for you before, during and after the event?

**PROBE:** What emotions do you notice in students before, during and after the event?

**Final Thoughts**

Any additional relationships between emotion and facilitating the learning of creative process that you would like to add from your perspective/experience?
**Observation Data Collection Guide**

**Timeframe:** 2 hours

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<tr>
<th>Direct Observations</th>
<th>What Happened?</th>
<th>Researcher Interpretations</th>
<th>What I Think Happened?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefing</td>
<td></td>
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<tr>
<td>Interactions</td>
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<td>Debriefing</td>
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<tr>
<td>Key Words from Participants</td>
<td>Count &amp; description/wording used</td>
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<tr>
<td>“I feel…”</td>
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<tr>
<td>Key phrases from Facilitator</td>
<td>Count &amp; description/wording used</td>
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<tr>
<td>“how does that feel”</td>
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</tbody>
</table>
Examples of what to observe:

Emotions:

- Expressions
- Vocal changes
- Facial movements
- Non-verbal behavior
- Differences between facilitator and participant activities

Facilitation techniques (Main, 1985):

- Saying back exactly what the student has said but with an inflection indicating that a question has been raised
- Paraphrasing the student’s remarks saying ‘did I understand you’ followed by paraphrase
- Requesting the student to expand his/her views by saying ‘tell me more’
- Relating feelings and behavior, asking ‘tell me how you felt when you…’

Stages in the debriefing process (Pearson & Smith, 1985):

- What happened? – describe in detail
- How did the participants feel? – during the experience
- What does it mean?
- Instances where facilitator interpretations were made during reflection
Appendix D

Interview 2 Guide

Timeframe: 60 minutes

Revisiting Observation

In activity XXX:

- What were you thinking about when you did XXX?
- What were you feeling when you did XXX?
- Why did you do XXXX?
- What were some of the places in the learning activity that you:
  - Expected emotion from the students? Did that occur or not and how do you know?
  - Experienced emotion from the students that you didn’t expect? What were they?
  - Expected emotion in you? Did that occur or not and how would you describe it?
  - Experienced emotion from yourself that you didn’t expect? How would you describe it?

Revisiting Interview 1

- If there are any incorrectly captured responses, what should the correct answer be?
- If there are any incompletely (i.e, new meanings) captured responses, what should the complete answer include?

Overall Reflection

- Are there other parts of emotion in the facilitation of creative process that you experience that we haven’t discussed? What might those be?
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