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Developing and Sustaining Creative Workplace Teams: A User's Guide

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Buffalo State
State University of New York
Department of Creative Studies

Developing and Sustaining Creative Workplace Teams: A User's Guide

A Project in
Creative Studies

by

Thomas J. Andahl

Submitted in Partial Fulfillment
of the Requirements
for the Degree of
Master of Science

May 5, 2012

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ABSTRACT OF PROJECT

Developing and Sustaining Creative Workplace Teams: A User's Guide

This project represents the initial work on a practical guide for managers and their employees on how to fashion and nurture creative teams in the workplace. I believe there is a palpable need for such a guide. Managers realize their success depends on their ability to harness the creativity and innovative talents of their employees, but many of them do not know how. For their part, employees naturally want to maximize their creative talents, but many feel that their creative urges are suppressed by the very managers who want to unleash them. This paper lays out my thinking on the need for such a guide and begins the work to create one. It provides the reader with a cross section of resources on the issue of creative workplace teams and includes the initial two draft sections of the guide. Those sections focus on the critical need for creative teams in organizations today and provide an overview of conditions necessary to develop and maintain a work environment that allows creative teams to flourish.

Thomas J. Andahl

Date

Acknowledgments

Simply put, this project and all of the work that predated it in the pursuit of my degree at Buffalo State would not have happened without the unfailing support of my wife and family. Kathleen was my inspiration, guiding light, chief buck upper, sounding board, designer, editor, and technical support. She listened when I had something interesting to say (or not), questions to ask, or just had to rant. She had so many ideas bounced off of her that it bordered on insight abuse. Thank you, LOML, for everything. Thanks also to my guinea pig children, Connor and Marta, for your willingness to learn how to make mindmaps, brainstorm, and listen to my intricate descriptions of APA style.

Equally obviously, I owe a great debt of gratitude to the faculty and staff of the Department of Creative Studies for their uncanny ability to deepen my love and understanding of creativity through their instruction, wisdom, and the way they lead their lives. They are truly a gift to a world needing such talent.

Finally, what can I say about the aptly named Supremes? The members of my class cohort--and the assorted Temptations and Ronnettes--were unfailingly supportive, fonts of knowledge, unceasingly funny and profound, and, most importantly, friends. Despite occasional memory loss, I will never forget you all. Thank you so much.

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SECTION ONE: PROJECT BACKGROUND

Purpose and Description

In the sixty-plus years since J. P. Guilford focused the attention of psychologists and others on creativity, much of the research in the field has examined individuals rather than groups. Only in the last decade or so has the focus started to shift to look more deeply at how groups, especially those in workplace settings, generate and shape ideas into reality (Hennessey & Amabile, 2010; Henry, 2004; Kurtzberg & Amabile, 2001). Researchers at business schools, recognizing that most of the creative work done in organizations in today's fast-paced, technology-driven global economy is performed by groups, have been at the forefront of this work. But they have not been alone. Journalists, neuroscientists, psychologists, sociologists, and others have increasingly focused on small group processes, collaboration, the dynamics of brainstorming, motivation, and other topics related to group creativity and innovation. The result is a broad and deep body of interrelated work that few, if any, managers are familiar with or have access to on a ready basis.

This project is an initial step to pull together a large body of relevant research on how to establish and lead creative teams. It serves as a guide that managers will find accessible, readable, relevant, and implementable. As a starting point, I intend to initially outline the seminal work done by Amabile (Amabile & Kramer, 2011; Amabile, Conti, Coon, Lazenby, & Herron, 1996) and Ekvall (Ekvall, 1996; Hunter, Bedell, & Mumford, 2007) on creative climate and then, in turn, look more deeply at the factors they have identified as critical to creativity and innovation in organizational settings: challenging work, autonomy, idea support, debate, playfulness, risk taking, intrinsic motivation, and

others. In addition, I will detail other factors that have been discussed in the literature as essential to group creativity, including physical space, work team diversity, training in creative techniques (such as Creative Problem Solving), and the use of measurement tools such as FourSight (Puccio, 2002) to help engineer the creative mix in organizational groups. Whenever possible, I will cite case studies of firms such as IDEO, 3M, or Google where these conditions are in place and contributing to creative group behavior and output. I will also highlight the challenges to group creativity—there are many—and ways to overcome such difficulties. Finally, I will discuss the situations in which it makes more sense to rely solely on creative individuals rather than groups.

I envision this guide as a reference document that managers at all levels and all firms—public and private—can easily use to answer their questions, provide simple guidance based on solid research and real world experience, and point them in the direction of additional resources. I also see it as a living document that I can build on and enrich over time with additional insights, experiences, and research findings. I will attempt to break up the text with memorable quotations, graphics, and photographs that help illuminate textual passages, and provide an bibliography to guide readers interested in deepening their learning.

Ideally, I would have liked to complete the entire guide during the course of this semester, but I recognized that the scope of the project would prevent me from doing so by course end. So, in recognition of time constraints, I decided to provide as a component of the master's project two completed sections of the guide: the opening overview that details the contents to follow and the introductory section on the climate work of Amabile, Ekvall, and others.

Rationale for Selection

Why do I want to do this? In part because of the need I identified above, but more importantly because I discovered in the course of studying creativity that this is something I believe in passionately. After managing teams off and on for more than a decade and, more recently, teaching, I now realize that a great deal of my focus was on building teams to better harness their collective creative talent, much of which was often suppressed. I not only lacked awareness but also had no resources to tap should I recognize what I was trying to do. In recent months I have learned that this is a fairly common occurrence in organizations—managers leading without much foreknowledge, inadvertently doing many of the wrong things, stifling the creative potential of their often talented teams. Firms often hire highly creative individuals and then place them in soul-sapping cubicle farms, give them little freedom, and otherwise discourage original thought in myriad ways. It need not be like this. I have discovered over the years that there are better ways to develop and lead teams that encourage and deliver creative results. Few managers seem aware of such tools, processes, and techniques, however, and talented, highly creative people suffer because of such ignorance. I want to help change that. First in my own organization and then in others. This guide is a first step.

SECTION TWO: PERTINENT LITERATURE

Conducting research for this guide is admittedly a massive undertaking and an ongoing one as research continues to reveal new insights on group behaviors and creative collaboration and innovation in workplace settings. Initially I have focused on uncovering literature critical to completing the opening sections of the guide: the introduction on creative teams in organizations and the seminal work on creative climate. I will detail here some of those key works. Additional sources will be cited in the draft guide sections found later in this paper and will be included in the concluding bibliography. Finally, in the selected references section that immediately follows, I will list some of the journal articles and books—separated by topic—that I believe will be essential in completing later portions of the guide.

While there is a great deal of work available on organizational dynamics and team behaviors, very few focus specifically on creativity in teams. Even fewer resources give the reader the view from 30,000 feet—why creative teams are more critical now than ever. Washington University psychology professor and creativity scholar Keith Sawyer offers up perhaps the best work for my purposes. His *Group Genius: The Creative Power of Collaboration* (2007) debunks the myth of the hermit genius in explaining how groups of individuals in the workplace are able to pool their individual skills, experiences, and knowledge to generate new “collective” ideas and fashion them into innovative products and processes. Of particular value are Sawyer’s descriptions of the improvisational collaborations that take place in so many cutting edge organizations. Frans Johansson in *The Medici Effect* (2006) and Steven Johnson in *Where Good Ideas Come From* (2010) cover similar ground but draw more heavily on illustrative historical

examples. *Group Creativity: Innovation Through Collaboration* (2003), edited by psychologists Paul Paulus and Bernard Nijstad, pays especially close attention to the challenges of generating ideas in typical brainstorming sessions but does provide some broader assessments of workplace team creativity as well. J. Richard Hackman, perhaps America's leading expert on work teams, does not tackle creativity head on in his latest compendium—*Collaborative Intelligence: Using Teams to Solve Hard Problems* (2011)—but he does make the case that teams must have the right conditions in place to succeed, creatively or otherwise. Hackman also provides a wealth of sources on just about every topic related to establishing a creative workplace environment.

Journal articles on this topic tend to be more specific, focused on single aspects rather than the strategic picture of workplace team creativity and innovation, but a number provided useful general insights. Among the overview pieces that I found particularly helpful were Leigh Thompson's *Improving the Creativity of Organizational Work Groups* (2003); *From Guilford to Creative Synergy: Opening the Black Box of Team-level Creativity* (2001) by Terry Kurtzberg and Teresa Amabile; and *Creativity* (2009) by Amabile and Beth Hennessey. Each article provided a broad perspective and enough information on various related topics to encourage me to delve deeper.

Amabile, of course, was a critical source when it came to more specific research on creative climate. While her two articles cited above touched on climate, much more essential were her *Motivating Creativity in Organizations: On Doing What You Love and Loving What You Do* (1997), and the more comprehensive *Assessing the Work Environment for Creativity* (1996), produced with colleagues Regina Conti, Heather

Coon, Jeffrey Lazenby, and Michael Herron. Reading both gives the reader a clear comprehension of Amabile's views on climate. I also found the discussion of Amabile's work in *Creative Leadership: Skills That Drive Change* (Puccio, Murdock, & Mance, 2007) and in *Leading on the Creative Edge* (Firestien, 2004) useful in encapsulating Amabile's theory and follow-on research. In addition, both of those works were essential in tying Amabile's work to that of Ekvall as well as later, related work on climate by Scott Isaksen and his colleagues. Ekvall's seminal *Organizational Climate for Creativity and Innovation* (1996) is absolutely vital for anyone examining the impact of workplace environmental factors on creativity. A number of studies validate Ekvall's work, including *The Climate for Creativity and Change in Teams* (2002) by Isaksen and Lauer. Some additional resources on climate that inform my thinking are listed below.

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SECTION THREE: PROCESS OVERVIEW

Achieving Goals and Outcomes

Managing and targeting my research for this admittedly ambitious project has been essential to its success. This is obviously a very broad topic in which considerable in-depth work has been done in several areas of critical importance. Knowing that I love to keep uncovering additional perspectives on a topic, I had to consciously limit my research to those works that are absolutely vital to completing a quality guide. I simply did not have the time to be all encompassing. This has been a challenge, but my feedback partners did an excellent job focusing my attention on forward movement and deadlines, forcing me to set aside interesting articles (for now) in favor of drafting time. A couple of other measures have also been critical to keeping me on schedule and properly focused. First, I have been able to categorize my resources into discrete areas, making it clear which needed to be read and inculcated sooner (and sometimes much sooner) than others. Consequently, I frontloaded my work on Amabile, Ekvall, and other climate researchers since that sets the stage for the guide. Nearly all of that reading was complete early in the process, allowing me to begin to draft those sections even sooner than I had anticipated. This was especially useful because I discovered that I needed to do additional reading and thinking about the opening introductory section to give it a broader sweep.

Second, I needed to stage my research, thinking, and writing in a way that allowed sufficient time to obtain, ponder, and incorporate feedback as I moved forward. Working with comments from my sounding board partners was not especially difficult—

they were intimately aware of the project, goals, and timelines so their feedback was timely and targeted. The greater challenge came from my decision to post periodic blogs on my company's intranet to obtain comments on draft sections of the guide. Having had no experience whatsoever in the blogosphere, it involved considerable learning up front. I needed two tutorials to understand how to write a blog and post it properly. Even then, I needed additional help with graphics and other online idiosyncrasies. But I had success! My first blog was read by more than 70 individuals in the first week—not bad for a new blogger, I'm told. Although I received only one comment—also a common occurrence early on—it was an insightful one that led to a revision in the introductory section of the guide. I also now know how to help “drive” additional readers to the blog so they will see additional postings and—I hope—provide useful feedback.

In the course of my work assignments, I have been able to bounce some of my ideas off of peers, who have offered useful suggestions, most that will be incorporated into the guide at a later date. Of more immediate use has been the unexpected help from a fellow student also working on her master's project. She had done a considerable amount of research on Michael West's work on creative climate and shared her findings with me. I had not focused significantly on his research but now will be in a position to use it more effectively in the second section of the draft guide. The project timeline follows.

Project Timeline (20 hours per week)

- Week of January 30: completed concept paper.

- Week of February 6: submitted and revised concept paper. Checked in with advisor.
- Week of February 13: completed reading keyed to introductory section of guide; organized and catalogued resources.
- Week of February 20: wrote and posted blog on overall plan for guide on creative teams; discussed with sounding board partner, spouse; incorporated feedback into draft master's project.
- Week of February 27: drafted guide introduction section on creative teams; sought and incorporated feedback from sounding board partner, spouse, and colleagues.
- Week of March 5: completed and submitted draft sections 1-3 of master's project. Checked in with advisor.
- Week of March 12: completed reading on creative climate for guide; organized and cataloged resources. Revised draft sections 1-3.
- Week of March 19: wrote second blog but delayed posting due to timing issues with the blog "owner's" production, discussed with sounding board, spouse.
- Week of March 26: divided second blog due to extensive length and posted over two days, finished drafting creative climate section for guide; obtained and incorporated all feedback on blogs and draft guide. Began pulling all sections of

project together, fleshing out remainder of components, adding additional items to resource list, photos, and graphics; discussed with sounding board, spouse.

- Week of April 2: Spring break! Tightened draft.
- Week of April 9: Submitted draft sections 4-6 of master's project. Consulted with advisor.
- Week of April 16: Revised draft per guidance. Prepared presentation on project.
- Week of April 23: Submitted final version of master's project.
- Week of April 30: Worked on project presentation.
- Week of May 7: Gave presentation; submitted final revised master's project.

SECTION FOUR: PRODUCT OUTCOMES

In total, I was able to produce for this project: three blogs, a draft table of contents for the envisioned guide to developing and sustaining creative workplace teams, and the opening two sections of that guide—the introductory segment detailing the purpose and focus of the guide and the overview of organizational and team creative climate. I include the draft guide portions below, which represent approximately 10% of the final user guide. I did not include the blog postings which are largely redundant with the draft guide components. I have broken the three components up here to include some comments explaining why I chose to present the information the way I did. These comments, of course, will not be included in the actual guide once it is complete.

The table of contents for the guide entitled *Developing and Sustaining Creative Teams in the Workplace* begins on the following page. I wanted this to be an unusual opening that uses images, graphics, and color to grab attention, motivate the reader to continue reading, and help him or her commit to memory the structure of the guide. The table of contents in Kevin Carroll's *Rules of the Red Rubber Ball: Find and Sustain Your Life's Work* (2005) served as a useful model. In a published version of the guide, I would also use background color on the pages and perhaps texture as well. Since this is a draft in progress, the page numbers are notional but should give the current reader a reasonable estimate of the ultimate length of the guide.



Developing and Sustaining Creative Teams in the Workplace

A User's Guide

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I envisioned the following introductory section setting the stage for readers by briefly explaining why group creativity is so essential today—using real world examples of companies like Google and 3M—and how I see this guide as critical in navigating through the many minefields they will face in their efforts to innovate and prosper. I thought this would be an especially apt place to include stories of success—like the Pump shoe—to spur readers on to learn how they might achieve similar success with their teams. I also believed it was critical to start weaving in early on in the guide some of the solid research that supports its suggestions. I believe the research is critical to establishing credibility. The introductory section of the guide begins on the following page.



Developing and Sustaining Creative Teams in the Workplace

A User's Guide

Introduction

In today's highly competitive, fast-paced global work environment every organization needs to maximize the creative output of its employees. The increasing complexity of the challenges facing private firms and public institutions demands that the collective energies, strengths, and diverse perspectives of those employees be harnessed effectively where creative collaboration most commonly occurs—in work units or teams. Rita Bissola and Barbara Imperatori, who study creative work teams, believe that properly designed groups can perform well even if their members are not especially creative. The group's creative ability is greater than the sum of each individual's. Arthur VanGundy and Linda Naiman argue in

Orchestrating Collaboration at Work that teams are also essential to organizations because they provide the social glue that “melds together people, processes, and technologies to produce products, services,” and, I would add, knowledge. Companies as diverse as premier design firm IDEO, legendary manufacturer 3M, and search engine giant Google recognize these truths and have dramatically displayed the creative power of their teams in the world-class products and processes they have created.

Noted scholars and authors like Keith Sawyer (*Group Genius*), Frans Johansson (*The Medici Effect*), and Steven Johnson (*Where Good Ideas Come From*) in recent years have extolled the virtues of creative teams, arguing, in effect, that the group mind now trumps that of the individual. Indeed, the idea of a lone genius, working in isolation to conjure up an incredible breakthrough, is largely a myth. IDEO's Tom Kelley, in *The Art of Innovation*, reminds us

"The more people who lie awake in bed thinking about your idea, the better."

—Scott Branson, author of *Making Ideas Happen*

that even iconic figures such as Thomas Edison have relied on research assistants, collaborative circles, and groups of colleagues to fashion rough ideas into bestsellers, workable solutions, and inventions. Creativity scholar and consultant Roger Firestien rightly points out that many modern

wonders—the jumbo jet, fax machine, VCR, and laptop—were not created by one person but by multiple individuals working collaboratively in teams in organizations. Sawyer also makes the strong case—in his *Explaining Creativity*—that creativity is not exclusive to individuals, that it is more likely to occur in groups than emerge in solitude. But how do leaders in organizations facilitate such creative collaboration in their teams?

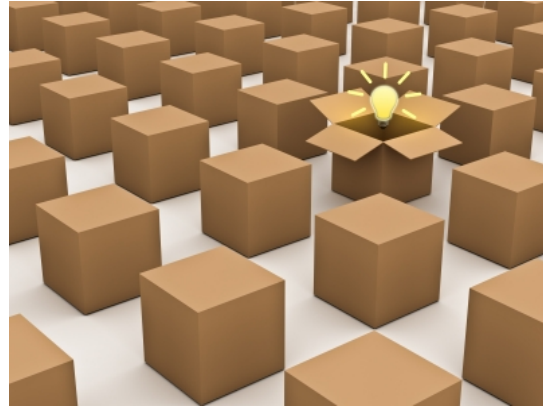
Let's assume you have done your homework and located and hired highly talented individuals. Perhaps you have even consciously attempted to bring especially creative people into your team. That's a good first step, but there is no guarantee that they actually will be creative, share their ideas, and inspire colleagues to make creative leaps. Why? Because many conditions must be in place to facilitate the creative process and help transform ideas into actual new products or processes. Too often organizations invest a great deal of money, time, and energy recruiting talented individuals only to crush their creative spirits with soul-sapping administrative processes, stultifying workspaces, and risk-averse management practices. In fact, organizational and social psychologists who have studied group dynamics and creativity agree that forming teams composed of creative individuals does not necessarily result in creative output. Researchers such as Paul Paulus, Mary Dzindolet, Rebecca Mitchell, and Bernard Nijstad have shown that the ability of individuals in

group settings to be creative and innovative appears to be strongly influenced by the social context, by those working with them, and by their organizational environment.

Creative Teamwork and the Pump Shoe

Andrew Hargadon and Beth Bechky at Stanford University's Graduate School of Business, writing in the journal *Organization Science*, tell how a team in a particularly innovative company, Design Continuum (now known simply as Continuum), created the Pump tennis shoe for Reebok in the late 1980s. The idea for the Pump, a form-fitting shoe that works because of an inflatable air bladder built into the sides, emerged from a brainstorming session after one designer—who had earlier worked on inflatable splints—suggested that such supports in a shoe might prevent injuries. Another participant combined that idea with one of his own—he had earlier helped design medical IV bags and wondered if such bags could be modified into shoe bladders. At a later session, other designers developed a way to inflate and deflate the shoe easily, based on their experience with diagnostic pumps and valves. Those were only the initial interactions that ultimately led to a shoe that generated over \$1 billion in revenue in its first year on the market. Design Continuum—the leading competitor of IDEO's in America—is no ordinary company

Creating in a group setting is a complex process with many variables at play. If it were easy, everyone would be doing it well all the time. What works for Hallmark or Apple may not work well for someone sitting at Ford or the IRS. Edison's comment on genius being one percent inspiration and ninety-nine percent perspiration holds for team creativity as well. It's hard work getting it right. For creative individuals to be creative on the job, the conditions for creative teams need to be in place first.



This is not a guide about ideation, brainstorming, or creative problem-solving. It is about how to put into place and sustain an environment and other conditions that will improve the odds that your organization will not only generate ideas but also turn them into useful products, services, and new ways of doing business. That process can take place in everyday conversations—not just in formal brainstorming sessions. It's what Sawyer calls emergent creativity. As those interactions and exchanges continue, the ideas evolve ultimately into iPads, hybrid vehicles, and Pump shoes. Or not. British organizational psychologist Michael West, who has written extensively on creativity in workplace teams, argues that “organizations create an ethos or atmosphere within

which creativity is either nurtured and blooms in innovation or is starved of support.” In this guide, you will learn what your organization needs to do to create that right atmosphere, to provide an environment that will help your staff maximize its creative potential.

The following overview section on climate is meant to frame the rest of the guide by clearly laying out that there are discrete elements that managers can influence to facilitate creative flow in their teams. I think breaking it down into the various components of climate as identified by Ekvall (2006) and Amabile (1997) should help managers grasp that they can effect creative change bit by bit. That they are not trying to change a culture overnight. That this is doable. Similarly, I felt that a concrete case study here illustrated for readers that these principles are not academic theory, but actually have been implemented effectively in the workplace. These summaries are meant to be just that. I am hoping that teasing the reader with just a little taste here will encourage him or her to read further for additional detail in later sections.

The Elements of Creative Climate

Researchers over the past two decades have identified numerous factors that they believe are critical to establishing a creative environment—what

they typically call

climate. Climate, as

defined by Goran

Ekvall, a psychologist

at Sweden's Lund

University who has



done much of the premier work on the topic, is the established “patterns of behavior, attitudes, and feelings that characterize life in an organization.”

It is considered the manifestation of the organization's culture, not the

culture itself. And, because it is not as deeply embedded as is culture,

climate is easier to influence and change. Leading creativity scholars

Gerard Puccio, Mary Murdock, and Marie Mance write in *Creative*

Leadership: Skills That Drive Change that climate affects several key

areas in an organization, including the creativity of its employees and

teams. Ekvall and fellow psychologists Teresa Amabile at Harvard, Scott

Isaksen at the Creative Problem Solving Institute in Buffalo, and Michael

West at the UK's Lancaster University have been at the forefront in identifying the factors that are critical for a creative organizational climate. Rather than looking at each scholar's listing—as well as other compendiums—this guide will instead focus on those factors that have been most commonly identified by researchers: challenging work, autonomy, idea support, debate, and a sense of playfulness.¹ Folded into the discussion will be a review of the impact on teams of additional factors that are not always covered in climate studies but can have a significant effect on creativity and innovation, including physical work conditions, intrinsic motivation, creative style, and training in creative techniques and group behaviors. But first, a quick look at the critical five:

Challenging Work. Ekvall's research shows that when people are in a highly challenging climate where they believe in the mission and their jobs have significant meaning to them, they will feel great joy in their work and invest maximum energy in performing their duties. They are more likely to regularly find themselves and their teams in the “flow” state described by Mihaly Csikszentmihaly, in which they are fully immersed in their work and more likely to generate ideas. Team expert Richard Hackman

**"If you put fences
around people, you get
sheep."**

**–William McKnight,
legendary president of 3M**

1. For a comprehensive look at several dozen studies of creative climate factors, see *Climate for Creativity: A Quantitative Review* by Samuel Hunter, Katrina Bedell, and Michael Mumford in the *2007 Creativity Research Journal*, Volume 19, Number 1, pp. 69-90.

at Harvard agrees that workplace groups need a compelling purpose or they will not be effective. Indeed, in Ekvall's studies, employees in low-challenge climates were indifferent or alienated. They were unlikely to persist when they met with obstacles. They were not driven to create and innovate.

Autonomy. Employees are more likely to be creative when they have considerable flexibility and freedom in determining how to complete their work assignments, according to Ekvall. Amabile views this condition as an absolutely vital stimulant to creativity. She believes that people need to feel a sense of control over their ideas; they must be allowed to plan, take action, have choices, and make decisions on a daily basis without overly close supervision. West and fellow researchers Jing Zhou at Rice University and Carsten De Dreu at the University of Amsterdam also suggest that employee participation in decision making strengthens the social fabric of teams, leading to a greater exchange of ideas. By contrast, individuals and teams in an organization with a low-autonomy climate are likely to be passive, reactive, and rule-bound, reducing the likelihood that

they will generate creative insights, share them with colleagues, and take initiative.

Idea Support. This is how ideas are treated in an organization. Ekvall sees a supportive environment as one where “ideas and suggestions are received in an attentive and supportive way by peers and supervisors.”

Initiatives and risk taking are encouraged and rewarded at all levels.

Amabile adds that managers in a highly creative climate show their support by protecting teams from outside distractions and by providing sufficient resources and time for ideas to incubate, emerge, and develop. When support for ideas is low, however, employees fear challenging the status quo. Managers typically respond negatively to suggestions, picking apart ideas and raising obstacles to new initiatives. The level of trust at all levels tends to be especially low in such organizations.

Debates. In a debating organization, voices are heard—including dissenting ones—and people are keen to put forward their ideas. Conflict over ideas is welcomed but managed effectively. An overwhelming body



of research, West reports, shows that constructive or task-based conflict improves the

quality of ideas generated as long as it does not degenerate into animosity and personal attacks. Isaksen and colleague Kenneth Lauer in a 2002 article in *Creativity and Innovation Management* found that members of highly creative teams had the ability to work together without major personal conflict and listened to and honored each other's opinions; creative collaboration was common. Sawyer and other researchers also report that teams composed of people who have a variety of skills, knowledge, and perspectives are more likely to generate ideas through debate and solve problems than are more homogeneous teams. In organizations where healthy debate is absent, however, employees tend not to question conventional wisdom. Or, if they do, debates often escalate out of control, undermining team cohesion and creative productivity. Isaksen and Lauer found that members of less creative teams were unwilling to communicate and understand one another.

A Sense of Playfulness. Playful organizations are characterized by a relaxed atmosphere filled with laughter and camaraderie. They welcome

spontaneity and embrace the unexpected. They encourage and allow a range of play to occur during work hours and in the workplace, from the use of simulations and role playing to aid decision making to more

"The most exciting phrase to hear in science, the one that heralds new discoveries is not 'Eureka!' but 'That's funny...' "

– Isaac Asimov

diversionary activities such as company picnics that aid in the bonding of teams. Stuart Brown, a leading researcher on play, believes such organizations recognize that play fuels creativity by sparking curiosity, risk taking, and the challenging of accepted procedures. At the other end of the spectrum are organizations that have a much stiffer, grave environment, where jokes and laughter are frowned upon. Work is too serious a place for play. An extreme example would be the Ford Motor Company in the 1930s and 1940s when laughter on the job was a punishable offense.

Before looking at each of these factors in depth, it should be noted that several experts in creative climate have developed diagnostic tools that

W. L. Gore: Getting the Climate Just Right

Gore, designer and developer of a wide range of innovative products from Gore-Tex fiber to Elixir guitar strings to chemical filters and fiber optic cable, is renowned for its creative work climate. Named by *Fortune* magazine this year as one of the 100 best companies to work for (for the 15th consecutive year) and by *Fast Company* as America's most innovative company in 2007, Gore does a lot right according to researchers of creative climate:

- Gore relies on small teams, believing that familiarity builds trust and allows for greater idea exchange. Face-to-face interaction is preferred over emails and memos.
- To encourage independent thinking, hierarchy is kept to a minimum—ranks, titles, and bosses are not permitted. Associates decide which

organizations can employ to measure their own climates. The four most commonly used are KEYS (based on Amabile's work); the Creative Climate Questionnaire (CCQ; Ekvall's); the Situational Outlook Questionnaire (SOQ; a slightly altered version of CCQ by Isaksen, Lauer, and Ekvall); and the Team Climate Inventory (TCI; developed by West and colleague Neil Anderson). Each instrument poses a list of questions for employees to answer concerning work conditions that factor into climate. The TCI differs somewhat from the others in specifically targeting the climate in teams rather than larger organizational dimensions. According to one study—by Gro Ellen Mathisen and Stale Einarsen—the TCI appears to be the most often used tool.

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SECTION FIVE: KEY LEARNINGS

Before moving into a broader discussion of learnings, I would like to relate the lessons learned in the early stages of researching and composing this guide.

- First, it was harder than I thought to shift from scholarly writing to the less academic style that most readers are accustomed to seeing. This challenge was compounded by the need to mix the two styles in the project paper—as you see here. Feedback was helpful as I moved along, but I believe I need to continue to focus on refining a more readable and engaging writing style.
- Second, I learned that it was absolutely critical to lace throughout the guide cartoons, quotations, photos, and other images that serve to break up blocks of prose, make it less “academic,” and catch reader attention. A related point: I have discovered that you can use your writing and supportive material to move your reader into a more positive state of mind that helps keep him or her engaged and wanting more. This revelation arose, in part, from my study of the impact of positive affect on team members.
- Third, I realized that by staging the publication of my blogs over a period of time, I was unconsciously adhering to the Torrance Incubation Model (Torrance & Safter, 1990) of teaching by deepening reader expectations, heightening their anticipation. They were hearing the team creativity story

one chapter at a time. I now see that the guide will unfold in a similar way.

- Fourth, I belatedly realized that I have to include a segment in the guide focused exclusively on managing creativity in teams. Although many other elements in the guide will have a leadership component to them, there are other management skills (such as setting goals, time management, and listening) that I felt would not be captured. Developing that section will require me to do a considerable amount of future research into the work of Christina Shalley and Lucy Gilson (2004), Michael Mumford (2000), and others.
- Finally, I discovered that this is an amazingly broad research problem. Sociologists look at team dynamics from one perspective, creativity researchers from another, and organizational psychologists from yet another. I even found useful ideas from consultants who were applying lessons learned from improvisational theater to workplace teams (Hough, 2011)! Sometimes there is overlap in their work and findings but often there does not appear to be, which requires the researcher to delve into multiple threads in many fields. It has been an exciting but daunting search.

Looking beyond the specifics of the project, I believe that my initial work on it has served to integrate and synthesize much of what I have learned over the past two years at Buffalo State and has enmeshed that knowledge with my experiences and

leadership philosophies as a manager over the last 15 years. It's all coming together now and making sense. Having this comprehensive and deep understanding of the many factors at play in a team environment that can affect creativity and innovation will make me a more effective leader in my organization. Moreover, it now puts me in a much stronger position to serve as a model to influence other leaders. Indeed, this relatively newfound expertise—and a resulting boost to my confidence—was instrumental in my convincing instructors in our training academy to invite me to join them in co-teaching a course on creativity and innovation for managers. I now have the substantive background to have a real impact in that course.

At the same time, the act of blogging has raised my “creative profile” more than ever before. More individuals are aware of what I am doing, what I have been studying, and what my goals are. Quite suddenly, a number of people have approached me to suggest that we pool our resources to spread information and ideas about creativity and innovation. I feel certain that the actual publication of the guide some months from now will provide additional “publicity” and put me in an even better position to inform my fellow managers and other employees of the potential for enhancing the creative potential of our teams and our organization.

SECTION SIX: CONCLUSION

I know from self-assessment instruments that I have taken in the past that I am an avid learner. I love learning something, anything new. Ask my wife who has to listen to the latest thing I've read about stink bugs or linguistics or George Clooney. And I love learning for the sake of learning. As a student of creativity studies, every new line of research I uncovered was a revelation and I wanted to know as much about it as possible. So I rushed pell-mell down each path, consuming every journal article and book I could find on the topic. I studied visual and kinesthetic creativity, improvisation and storytelling, creative problem-solving techniques, culture and creativity, play and humor, the neuroscience of creativity, the history of the study of creativity. You name it, I delved into it. All utterly fascinating stuff. But the self-assessment instruments also told me that I am an achiever, meaning that I need to apply what I have learned. And it was that piece that was missing for me. I lacked focus, or at least thought I did. How could I apply all of this? *Could* I apply all of this?

The strategic vision that I articulated last summer for Dr. Puccio laid out my plan to take each of these discrete areas of my studies and develop seminars to teach the key principles to interested work colleagues. Doing so would serve as my prime means of increasing my influence and becoming a change agent in my organization. Although I have not abandoned this plan, I have realized in the intervening months that I needed a theme that would provide a unifying purpose for all of these separate ideas and events. Otherwise, it would be seen as a scattershot approach without focus or ultimate meaning. What impact could I have on individuals attending a one-hour session on improvisational

techniques and creativity? They could well walk away thinking that the session was interesting but be at a loss as to how it could fit into their universe. What do I do with this?

The team guide is the answer! It has given me focus. A place for everything I have learned about creativity and innovation. Everything can be fed into it and built upon over time. All of the small, discrete bits of knowledge, insights, exercises, quotations, images, video clips—all of it. With the structure of the guide in mind, I can readily plug in the latest research article, a story I read in *The Smithsonian* or *Wired* magazines, or something I saw on YouTube or Twitter. And I can then pull out what is needed when I am writing a blog, speaking to a class, or just chatting with a colleague. That framing also helps my audience understand the breadth and depth of the field of creativity and increases the likelihood that my influence will have impact. I recently was able to experience the power of focus and structure when I quickly pulled together an effective presentation on group creativity that drew on some of the team research in the guide as well as work I have done on improvisation, storytelling, and creativity history. It has all come together!

Next Steps

Much work remains to be done on the guide. I estimate that roughly ninety percent remains to be completed. I have done a considerable amount of research on future sections but anticipate that much reading, synthesizing, and writing lies ahead. I am stockpiling journal articles for coming months. My blogging will continue to be a source of feedback and additional insights. I am finding that more than a few colleagues have read some of the literature and have useful ideas and informational leads to offer. (I

just received an article from one colleague on Disney's concept of team collaboration that I can feed into the guide and my teaching.) I am hopeful that I can also weave examples specific to my organization into the guide prior to publication to increase its relevance and usefulness.

Now that I have dipped my toe in the blogosphere, I plan to continue regularly blogging on creativity topics, not just those related to team creativity. Doing so will help expand my own network and, consequently, my influence and impact. I am anticipating that readers in other units and organizations will request that I elaborate on the guide in presentations and seminars, which I will gladly do. In addition, I see the guide and my research continuing to inform my teaching, which will also begin to pick up after I return to work full-time following completion of the Buffalo State program. I have already been invited to present my initial findings from the guide in a course on managing creativity in June.

Of course, I am only at the beginning of a long-term process. I do not expect everyone in my organization or beyond to immediately agree with the messages contained in the guide. And some never will. So I am prepared to spread the gospel over an extended period. There will be setbacks, bumps along the road. Still, I will actively seek to rely on established and new allies, build bridges to others, and move forward step by step. How will I know when to stop? Perhaps never. Certainly not simply once the guide is complete. Helping develop and sustain creative workplace teams is now my vocation. I am in this for the long haul.

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APPENDICES

APPENDIX A

CONCEPT PAPER

Master's Project Concept Paper

CRS 690

Thomas J. Andahl

The International Center for Studies in Creativity

Buffalo State College

February 9, 2012

Project: A Guide to Developing and Sustaining Creative Workplace Teams

Name: Thomas J. Andahl

Date Submitted: February 9, 2012

Project Type: Create a guide for managers to help them effectively build and lead creative teams.

Project Background

Purpose and Description

In the sixty plus years since J. P. Guilford focused the attention of psychologists and others on creativity, much of the research in the field has focused on individuals rather than groups. Only in the last decade or so has the focus started to shift to look more deeply at how groups, especially those in workplace settings, generate and shape ideas into reality (Hennessey & Amabile, 2010; Henry, 2004; Kurtzberg & Amabile, 2001). Researchers at business schools, recognizing that most of the creative work done in organizations in today's fast-paced, technology-driven global economy is performed by groups, have been at the forefront of this work. But they have not been alone. Journalists, neuroscientists, psychologists, sociologists, and others have increasingly focused on small group processes, collaboration, the dynamics of brainstorming, motivation, and other topics related to group creativity. The result is a broad and deep body of interrelated work that few, if any, managers are familiar with or have access to on a ready basis.

I see this project as an initial step to pull together a large body of relevant research on how to establish and lead creative teams. It serves as a guide that managers will find accessible, readable, relevant, and implementable. As a starting point, I intend to initially outline the seminal work done by Amabile (Amabile & Kramer, 2011; Amabile, Conti, Coon, Lazenby, & Herron, 1996) and Ekvall (Ekvall, 2006; Hunter, Bedell, & Mumford, 2007) on creative climate and then, in turn, look more deeply at the factors they have identified as critical to creativity in organizational settings: challenging work, autonomy, idea support, trust, playfulness, risk taking, intrinsic motivation, and others. In addition, I

will detail other factors that have been identified as essential to group creativity, including physical space, work team diversity, training in creative techniques (such as Creative Problem Solving), and the use of measurement tools such as FourSight to help engineer the creative mix in organizational groups. Whenever possible, I will cite case studies of firms such as IDEO, 3M, or Google where these conditions are in place and contributing to creative group behavior and output. I will also highlight the challenges to group creativity—there are many—and ways to overcome such difficulties. Finally, I will discuss when it makes more sense to rely solely on creative individuals rather than groups.

I envision this guide as a reference document that managers at all levels and all firms—public and private—can easily use to answer their questions, provide simple guidance based on solid research and real world experience, and point them in the direction of additional resources. I also see it as a living document that I can build on and enrich over time with additional insights, experiences, and research findings. I will attempt to break up the text with memorable quotations, graphics and photographs that help illuminate textual passages, and an annotated bibliography to guide readers interested in deepening their learning.

Ideally I would like to complete the entire guide during the course of this semester, but I recognize that the scope of the project probably assures that this hope will be a false one. So, in recognition of time constraints, I intend to provide as a component of the master's project at least two completed sections of the guide: the opening overview that details the contents to follow and the introductory section on the climate work of Amabile and Ekvall.

Rationale for Selection

Why do I want to do this? In part because of the need I identified above but more importantly because in the course of working in creative studies I discovered that this is something I believe passionately in but had not been fully aware of until recently. In managing teams since the late 1990s and teaching more recently, I now realize that much of my focus was on building teams to better harness their collective creative talent, much of which was often suppressed. I not only lacked awareness but also had no resources to tap should I recognize what I was trying to do. In recent months I have learned that this is a fairly common occurrence in organizations—managers leading without much foreknowledge, inadvertently doing many of the wrong things, stifling the creative potential of their talented teams. Firms often hire highly creative individuals and then place them in soul-sapping cubicle farms, give them little freedom, and otherwise discourage original thought in myriad ways. It need not be like this. I have learned over the course of my studies in creativity that there are better ways to develop and lead teams that encourage and deliver creative results. But few managers seem aware of such tools, processes, and techniques. And talented, highly creative people suffer because of such ignorance. I want to help change that. First in my own organization and then in others. This guide is a first step.

Pertinent Literature

I have done considerable research in this area and have a significant number of journal articles and some books to add to the material I have already covered. A representative list of resources follows. What I find especially appealing here is the richness of the literature, spanning from studies on small groups in the workplace to laboratory research on brainstorming groups to detailed work on motivational theory and leadership dynamics. The diversity of the research is critical, however, to comprehending the complexity of facilitating creativity in organizational settings. To assist with improving my understanding of that complexity, I also will consult with managers in my organization who have nourished creativity while operating in multicultural environments, with limited resources, and under severe time pressures.

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Process Plan

Achieving Goals and Outcomes

I will admit up front that I love to research and have been dedicating myself over the last month to the search for resources to supplement those I already have discovered and read. I currently have a backlog of perhaps 30 journal articles and a book or two to complete in the coming weeks that I believe are critical to the creative team guide. I have them categorized into discrete areas, however, so some need to be read and inculcated sooner (and sometimes much sooner) than others. Consequently, I have frontloaded my work on Amabile and Ekvall since that sets the stage for the guide. Nearly all of that reading is complete so I can begin to draft those sections soon and then turn to additional readings for later sections in the guide. I also plan to factor in feedback for each section as I process forward, using my sounding board partner, my spouse (who has extensive work experience in the pharmaceutical industry), and periodic blog postings on our organization's intranet. The project timeline follows.

Project Timeline

- Week of 30 January: work on concept paper. (20 hours per week)
- Week of February 6: complete revisions of concept paper. Check in with advisor.
- Week of February 13: complete reading keyed to introductory section of guide; organize and catalog resources.

- Week of February 20: write and post blog on overall plan for guide on creative teams; discuss with sounding board partner, spouse; incorporate feedback.
- Week of February 27: draft guide introduction section on creative teams; get and incorporate feedback from sounding board partner, spouse
- Week of March 5: Complete and submit draft sections 1-3 of Master's Project. Check in with advisor.
- Week of March 12: complete reading on creative climate for guide; organize and catalog resources. Revise draft sections 1-3 as necessary.
- Week of March 19: write and post blog on creative climate; discuss with sounding board, spouse; incorporate feedback.
- Week of March 26: draft creative climate section for guide; obtain and incorporate feedback from sounding board partner, spouse. Begin pulling sections together, fleshing out remainder of project components, adding additional items to resource list, photos, graphics; discuss with sounding board, spouse
- Week of April 2: Spring break! I'll be traveling with my family. Try to tighten draft while doing so.
- Week of April 9: Submit draft sections 4-6 of Master's Project. Consult with advisor.

- Week of April 16: Revise draft per guidance. Prepare presentation on project
- Week of April 23: Submit final version of Master's Project.
- Week of April 30: Work on project presentation.
- Week of May 7: Presentation; final revised Master's Project submitted.

Outcomes

As stated previously, at a minimum I will produce two blogs—as detailed above—and the following components for a guide to building and sustaining creative work teams: table of contents; introductory section detailing the purpose and focus of the guide; and opening section on creative climate, discussing the work on this topic by Amabile, Ekvall, and others; supporting graphics and photos; final resource section. Additional sections, time permitting, could also be included. Below are some additional details on the initial components:

- Table of contents. I envision this being an unusual opening that uses images, graphics, and perhaps color to grab the reader's attention and motivate him or her to continue reading. Rules of the red rubber ball could serve as a useful model.
- Introductory section. I want this to set the stage for readers by briefly explaining, with examples, why group creativity is so essential today and how I see this guide as critical in navigating through the many minefields they will face in their efforts to innovate and prosper. I think this would be an especially apt place to include stories of success and failure, spurring readers on to learn how to achieve the former and avoid the latter.
- Creative climate section. This section will frame the rest of the guide by clearly laying out that there are discrete elements that managers can influence to facilitate creative flow in their teams. I think breaking it

down into the various components of climate as identified by Ekvall (2006) and Amabile (1997) will help managers grasp that they can affect creative change bit by bit. That they are not trying to change a culture overnight. This is doable.

Key Learnings

Personal Learning Goals

- First and foremost, I see this project as essential to integrating all that I have learned over the past 18 months at Buffalo State with my experiences and leadership philosophies as a manager over the last 15 years. Doing so will facilitate my personal growth as a leader in my organization and—if all goes well—allow me to serve as a model of creative leadership for others.
- I then see taking this powerful message back to the course on creativity I developed five years ago and teaching the fundamentals of group creativity to the officers in that class. Completion of this guide will provide me with both the material and the confidence to do so.
- Concurrently, I see the guide and blogging that precedes it as a way to inform and educate my fellow managers and other officers of the potential for constructive change in leadership style and creative performance in our organization. My grand goal here is to change the way we do business.
- The above links me to my vision, as I articulated last summer for Dr. Puccio, of becoming a creative change agent in my organization. To date, my voice and impact have been limited to discrete pockets. I feel that this guide and the discussion it engenders will increase my influence and

improve the potential for me to move into a position—such as chief innovation officer—where I can have broader and sustained impact.

- As an intermediate step to the bullet above, I am hopeful that the effect of this guide and its publicity will gain me entrée to a number of business areas in which I can broaden my reach and build alliances with like-minded groups and individuals.
- To achieve all of the above, I must make certain that the guide is based on solid research and can be quickly consumed and digested; that I offer advice, not theory, that can immediately be acted upon; and that my guidance is grounded in the reality of my organization.
- A final point. I am not a technophobe but more of a technoklutz. I am hopeful that my venture into the blogging world will be the initial step into greater use of communication tools on the web that can be used creatively to improve team performance and collaboration.

Measuring Effectiveness

I believe the first indication that I am succeeding will be contained in the reactions to my blogging. I will be able to measure my impact both quantitatively and qualitatively. First, I will be tracking hits on the blog site, determining whether the number of visitors begins to rise or not in response to my serial blogging. (I already know what the baseline is for visitors to this site so I should be able to get a good read on whether my writing is attracting attention.) Second, I will be able to determine if the

number of comments is increasing and whether the number of commentators is increasing—both will serve as effective measures of impact. The third, and most important, yardstick will be the actual comments I receive. Our workforce can be vocal and not shy with their opinions. I should be able to determine fairly readily how a sophisticated body of readers is evaluating my work. I will know if it is of high quality based on such comments. If the evidence is weak, the writing unclear, my logic lacking, or the structure confusing, I will hear about it. I will be looking for comments on just those factors: structure, evidence, clarity, and argumentation.

To supplement the feedback I receive to my blog posts, I intend to add a few individuals to my feedback loop. I already am working informally with a number of people at work who can serve as sounding boards. I would also like to share the various components and final guide with all of the members of my Buffalo State cohort. (We have a collaborative email vehicle for doing so in place.)

Evaluation

There are two means by which I can evaluate the overall impact of this guide and its component parts. First, over the next few months if my work is of high quality and is reaching a wide audience, I should begin making new contacts who will be interested in further elaboration. I am hopeful inquiries will grow into requests for presentations—online and face-to-face—or even for additional written products for more senior audiences. Second, since my first draft of this concept paper I have been invited to present my initial findings from the guide in a course on managing creativity at the end of

April. If that goes well, I anticipate replicating the talk in future runnings of the course and offer it to other training units.

I see this as an educational process that will take time—I do not expect senior leaders to immediately accept my message, so I am prepared for an extended campaign. But I will actively seek to build those bridges, using contacts I have already established, and move forward step by step. How will I know when to stop? Perhaps never. Certainly not simply once the guide is complete and fully disseminated. Rather, once the change is complete, which make take years. I am in this for the long haul. I'm not going anywhere.

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