CONCEPTUAL AND HISTORICAL FOUNDATIONS OF THE SITUATIONAL OUTLOOK QUESTIONNAIRE®

A Technical Resource

Enhancing Performance of Organizations, Leaders, and Teams for Over 50 Years

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Introduction: An example of creative collaboration

The story of the Situational Outlook Questionnaire (SOQ) is a classic example of collaboration. The story starts with the work of Dr. Göran Ekvall – a Swedish industrial psychologist interested in making organizations around the world healthier and better able to release their creative human talents.

The Historical Context

Our work with the SOQ is based on the work of Dr. Ekvall who started to work within this important area of inquiry in 1954, after he graduated from university. The initial collaboration between Ekvall and Isaksen began at the International Center for Studies in Creativity, a unique academic unit within Buffalo State College. The College had been the host institution for the Creative Studies Project, a unique two-year experimental program designed to see if it was possible to increase levels of creativity. The program was highly successful and the research and development led to the formation of an academic unit within the undergraduate programs of the College (see Parnes, 1987, for a summary of this research).

Based on the success of the Creative Studies Program, the College approved a Master of Science in Creative Studies in 1975. During the early years of this program, the Creative Education Foundation provided support and the academic program was well integrated into the Annual Creative Problem Solving Institutes, also hosted at the College.

Dr. Donald Treffinger joined the faculty, as did Dr. Scott Isaksen and began to work on conducting research on the impact of learning and applying creative problem solving. This work has been published and now has more than 50 years of history (see Isaksen & Treffinger, 2004; Treffinger & Isaksen, 2005). As a part of this work, Don and Scott began the Cognitive Styles Project to examine style differences in how people preferred to learn and apply the tools and method (see Isaksen, 2004, for a summary of this project). The guiding question for the research mission at the Center was: What works for whom, under what circumstances?

Major progress was made on the Cognitive Styles Project, and by the mid 1980’s it began to focus on the “what circumstances” part of the question (and the context part of the system). Sid Parnes arranged for Göran’s visit to the Center and the collaboration began. Dr. Ekvall shared his work on developing the Creative Climate Questionnaire with us, and we developed a plan to translate and use the measure in our research and practice.

By the early 1990’s, both the Cognitive Styles Project and the Creative Climate Project outgrew their academic home, and work continued through a broad international network of scholars and much broader client applications. All work on the measure, database management, and application support shifted to the Creative Problem Solving Group (CPSB).

As of 2006, our tradition of working to understand the psychosocial climate for creativity in organizations has more than 50 years of history. The consistent theme within this work has been to better understand the organizational conditions that support and hinder renewal, creativity, and innovation.
Before the arrival of Ekvall, we had been making extensive modifications to our approach to Creative Problem Solving (CPS). We were clearly building on tradition established by Osborn, Parnes, and Noller; but we were in the midst of substantial changes stemming from current developments in cognitive science and garnering insights from a series of studies on the real-life impact of CPS. At the same time we were investigating the individual differences in what people contributed to and needed from the creative process. One of the key findings from all this work was that participants from the organizational world who attended our courses told us that their impact was highly dependent on the conditions within their work unit and management behavior.

This was the context that prepared the way for Ekvall’s visit to our academic center in 1984. When he presented his work on the Creative Climate Questionnaire (CCQ), and showed us how well it worked to distinguish innovative from stagnated organizations, it became clear that this was a tool we needed to incorporate into our work. Not only did Göran provide us the tool for translation and use, he put the CCQ into a broader context by providing a conceptual model.

Following his research colloquium, our team went to work to translate the CCQ into English resulting in an initial research edition ready for use in 1986. Making progress on assessing something like the context for change requires a rather expansive community of research and practice. We have been helped and influenced by many.

Scott Isaksen and Göran Ekvall working together in his study
Early Experiences at Volvo

Göran Ekvall graduated university with a degree in industrial psychology in 1954, and began working with the AB Volvo automobile plant in Skövde, Sweden. His first focus of attention was the evaluation of numerous personnel administration programs and projects. During this work experience, Ekvall observed that the investment the organization made in various programs was dependent on the general attitudes and atmosphere within the work unit from which the employees came. For example, he noticed that when employees came back from specific training activities, a great deal of the impact of the training was dependent on how the manager treated the employee upon return, as well as the general feeling that the employee could take the initiative to apply what was learned.

By studying the impact of various human resource initiatives he observed that most of them had a positive impact when the managerial attitudes and working conditions were supportive of the aims of the initiative. He also observed the opposite. When managerial attitudes and behaviors, and the working atmosphere were not in alignment with the initiative, it did not have a positive impact.

Another major focus was the effectiveness of idea suggestion schemes (Ekvall, 1967). Ekvall studied the personalities of the suggestors for idea suggestion schemes and again, he identified the working climate or atmosphere as a critical factor in the success or failure of these systems. For example, where there was positive impact in the suggestion scheme, there was a good level of cooperation between management and employees.

He began to study the suggestion systems within the larger system of the organization and noticed that one of the major benefits of these schemes was the opportunity to engage and involve large numbers of people, at varying levels of the organization, to apply their creative talents.

Doctoral Studies at Lund

Ekvall began his doctoral studies at Lund University in the 1960’s. This gave him the opportunity to study the idea suggestion schemes of a much larger number of organizations. While pursuing his doctorate, Ekvall also began to work with the Personnel Administrative (PA) Council, giving him yet another more practical platform to pursue his inquiry. Ekvall (1967, 1971) summarized his research conducted while completing his doctoral studies at the University of Lund. It was clear that his early work formed the crucible for identifying the climate, or working atmosphere, as a critical aspect for organizational effectiveness. As a forward in Ekvall’s report on industrial suggestion schemes (1967) indicated:

“The possibility of influencing one’s environment – social, physical or psychological – is regarded as a major way to achieve satisfaction of personal needs. In the history of industrial growth and development, this basic principle has sometimes been overlooked, neglected or else given a subordinate place in relation to economic considerations” (p. 6).

During the 1970’s, while working with the Swedish Council for Personnel Administration, Göran began to focus on the deliberate assessment of the climate for creativity and innovation. His work led to the development of the Creative Climate Questionnaire (CCQ). During this timeframe, Göran also began to study the antecedent conditions of climate. He sought to better understand what was behind the climate for creativity and innovation.
Background of the CCQ

The CCQ is a Swedish measurement, developed during the 1980’s within the scope of a research program about organizational conditions that support renewal, creativity and innovations concerning both products and processes. The program was under the auspices of The Swedish Council for Management and Work Life Issues (FArådet). In this program the concept of organizational climate was focused. The reason was that earlier research, as well as practical experiences, had pointed out that organizational climate was an important factor behind creative/innovative outcomes (Abbey & Dickson, 1983; Ekvall, 1967; 1971; & 1976; Litwin & Stringer, 1968; Pritchard & Karasich, 1973; and Sjölander, 1983).

In the framework of the research program climate is defined as "recurrent patterns of behavior, attitudes and feelings that characterize life in the organization". So conceived, climate is an attribute of the organization, which the members perceive and observe and consequently have conditions to describe and rate. Outside observers, too, can describe and rate the climate, if they have had long and close working relationships with the organization, as consultants, business-partners or as researchers studying the organization with social-anthropological methodology.
The framework also means that organizational climate is not identical to organizational culture. Values, norms and belief systems are not included in the climate concept as opposed to what some authors have proposed should be (e.g. Payne & Pugh, 1976), but in accordance with Ashforth's argumentation for making a distinction between climate and culture (Ashforth, 1985). If climate, in this way of viewing it, is to be included in a culture model, it should be regarded as a manifestation of culture on what Schein (2010) has described as the level of "artifacts" including "visible and audible behavior patterns".

In the context of organizational processes climate plays the part of an intervening variable (see Figure 1) that affects the results of the operations of the organization. The climate has this power because it influences organizational processes such as problem solving, decision making, communications, coordination, controlling and psychological processes of learning, creating, motivation, and commitment. The organization has resources of different kinds - people, money, machines, etc. - that are used in its processes and operations. These operations result in effects of many kinds and on different levels of abstraction: high or low quality of products or services; radically new products or only small improvements in the old ones; high or low well being among employees; commercial profit or loss. Climate exerts a strong influence on these outcomes. But the effects in turn influence both resources and climate. The causal picture becomes complicated. Good or bad circular movements can be in continuous action.

Figure 1
Organizational climate as an intervening variable

Resources
People Know How Materials
Buildings Patents Products
Machinery Funds Concepts

Climate
Organizational and Psychological Processes

Effect On
Quality Innovation Well-Being
Job Satisfaction Productivity Profit
Many different conditions and qualities of the organization and the work-environment exert influence on the climate. The climate, in turn, influences a number of effect variables. Figure 2 presents climate-influencing factors that are common in organizational and management books and articles, and illustrates how climate is influenced by a number of different factors.

**Figure 2**

*Antecedents of organizational climate*

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**Outcome Criteria**

In order to secure validity of the CCQ several kinds of outcome criteria have been applied, some on the organizational level, others on the individual. Some of the outcome criteria used include:

A. The innovative record in terms of product development of a company or a division of a company. An assessment method developed by Nyström (1974, 1979) was used for this criterion. A rating is made of each of the company's products during the last ten years on a 5-point scale on two dimensions: technological novelty and market novelty at the time of introduction. The ratings are made by top management group members; president and managers of marketing, product development and research.

B. The main business strategy of the company, as either innovative or adaptive. The first implies a clear intention to find new directions by developing new products and/or services. The second means sticking to the established and improving and adapting the products to new market conditions. This strategy has been denoted "positional" (Nyström, 1974, 1979). The company has decided to defend a market position by improving and adapting its old products, not developing new ones. The assessing of the strategy and classifying it has been done by means of interviewing the president of the company and studying policy and other relevant documents.
C. "Innovative" as compared to "Stagnated" companies. This criterion is a combination of B. and B. Companies that have been successful in creating new products and accordingly also have an innovative strategy are compared to companies that, due to the market situation, should have needed new products, but did not manage to develop them because of lack of creative/innovative potential and/or innovative strategy.

D. "Innovative" as compared to "Adaptive" companies. This criterion is another combination of A. and B. Companies with a successful innovative strategy are compared to companies with an adaptive ("positional") strategy that are doing well in the market.

E. Suggestion systems activity; number of suggestions yearly by 100 employees.

F. Number of patents obtained during a given period.

G. Best and worst climates for creativity. Perceptions of the climate in working environments that best encouraged creative thinking and initiatives and the climate that most prevented these.

H. Health. In a book about "health factors" of the work environment the authors (Johnsson, Rexed & Lugn, 2003) point out "creative environment" and "open climate" as two of the four most important health factors of the psychosocial work environment, the other two being "clear goals" and "consultative leadership". The climate model (Figure 1) predicts that well-being and job satisfaction are influenced by the climate.

I. Other organizational constructs which in the model are antecedents of climate (Figure 2).

**Versions of the SOQ**

The SOQ is the result of over 50 years of continuous research and development. Since the purpose of this resource is to highlight the historical development and origins of the measure starting with Dr. Göran Ekvall’s original Scandinavian version in 1981, we thought it would be useful for you to see the progression of the many versions of the assessment. To help you discriminate between versions, key aspects for each version including the name (and acronym), date of commercialization, dimensions measured, number of items measured, and reason for version change are presented in Table 1.
<table>
<thead>
<tr>
<th>Version Name</th>
<th>Date</th>
<th>Dimensions Measured</th>
<th>Number of Items</th>
<th>Reason for Version Change</th>
</tr>
</thead>
</table>
| Creative Climate Questionnaire (CCQ)             | 1981 | 1. Mutual Trust  
2. Challenge and Motivation  
3. Freedom  
4. Pluralism                            | 50               | Seminal work                                                 |
| Creative Climate Questionnaire II (CCQ II)       | 1982 | Same as CCQ                                               | 44               | Based on factor analysis-12 items removed, 6 added             |
| Creative Climate Questionnaire III (CCQ III)     | 1983 | 1. Challenge  
2. Support for Ideas  
3. Trust  
4. Freedom in Organizations  
5. Freedom in the job  
6. Dynamism  
7. Tension  
8. “Global” | 50               | Removed, expanded, and added additional items to better assess an organization’s innovative capacity |
| Creative Climate Questionnaire IV (CCQ IV)       | 1986 | 1. Challenge  
2. Freedom  
3. Idea-Support  
4. Dynamism  
5. Playfulness  
6. Debate  
7. Trust  
8. Conflict  
9. Risk-Taking  
10. Idea-Time                                   | 50               | 10 dimension version refined to those 10 dimensions that seem to account for the greatest amount of variance when assessing an organization’s innovative capacity |
<p>| Creative Climate Questionnaire IA (CCQ IA)       | 1986 | Same as CCQ Third Revision                                | 50               | Swedish CCQ translated into English                             |
| Creative Climate Questionnaire IIA (CCQ IIA)     | 1989 | Same as CCQ IV                                            | 51               | Revised and edited items to improve evidence of validity and reliability. Order changed and omnibus item added. |</p>
<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Year</th>
<th>Changes</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Climate for Innovation Questionnaire IIIA (CIQ IIIA)</strong></td>
<td>1991</td>
<td>Same as CCQ IV</td>
<td>60</td>
</tr>
<tr>
<td><strong>Situational Outlook Questionnaire® V (SOQ V)</strong></td>
<td>1998</td>
<td>Same as SOQ IV</td>
<td>53</td>
</tr>
<tr>
<td><strong>Situational Outlook Questionnaire® VI (SOQ VI)</strong></td>
<td>2001</td>
<td>Same as SOQ IV</td>
<td>53</td>
</tr>
</tbody>
</table>
It is easy to see in Table 1 that there have been many changes, modifications, and improvements over the years to the SOQ and its precursors. This long-term approach has been driven by the knowledge that an organization’s social-psychological climate can be isolated and measured independent of other ongoing variables within the workspace. The climate can be improved; and improving workplace climate can lead to improved human productivity as well as an organization’s ability to manage change.

We have benefitted so much from our 30 years of friendship, colleagueship, and collaboration with Göran Ekvall! We were deeply saddened to learn of his passing in December of 2012 at 82 years of age. His commitment to helping organizations become more friendly places for creativity, innovation, and change is a true legacy – one we have chosen to memorialize by continuing to name him as a co-author of these technical resources.

Our first technical manual on the Situational Outlook Questionnaire® (Isaksen, Lauer, Murdock, Dorval, & Puccio, 1995) was our initial attempt to document the translation and development of the SOQ. We wish to thank John Gaulin and Ed Zilewicz, who led the initial translation effort. We learned a great deal about cross-cultural translation! Dr. Andrew Joniak from Buffalo State College provided intellectual and technical support for the project and was joined by Dr. Gerard Puccio to assist us with the task of analyzing the psychometric properties and validity of the early translations. Dr. Geir Kaufmann, from the Norwegian Business School, assisted with several revisions of the instrument and provided feedback to students and professionals on concepts as did Dr. Michael Kirton from Occupational Research Center (UK) and Reg Talbot from the University of Manchester (UK). Other scholars in the field also influenced our thinking and work. Dr. Morris Stein, Professor Emeritus, New York University, was particularly helpful in questioning and strengthening our thinking and approaches in working with data. Dr. Mary Murdock provided keen insight and assistance in integrating qualitative analysis of narrative comments in order to make the SOQ a multi-method form of assessment.

We would especially like to note the people and organizations that, while engaged in change initiatives, allowed us to assist them and to do the research necessary to solidify the work in this manual. We appreciate the cooperation of key people in the corporate sector at Exxon USA, Procter and Gamble, General Motors, DuPont, Nabisco, Clorox, Heubline, ALCOA, and Mead Data Central. Participants from DuPont participated in the first climate certification program we conducted. Nate Bliss was also central in sponsoring our work with GM. Maggie Kolkena from the Oregon Department of Transportation also provided data. In the educational arena, the Newark, NY, and Williamsville, NY, school districts, particularly Heim Elementary and Middle School, provided us with opportunities to work with them to understand the impact of climate, and David Turnipseed, a professor at the University of Indiana, completed doctoral work with a research version of our climate instrument.

During the early years of the Creative Climate Project at the Center of Studies in Creativity, a number of graduate students contributed to the research and development of the SOQ. These include: Gretchen Bingham, John Cabra, Andy Dutcher, Chris Grivas, Marian Sobieck, Gwen Speranzini, and Ginny Sundell. Alexander Winsemius from the University of Amsterdam and Alex Britz from Darmstadt Technological Institute contributed extensively during their internships at CPSB. During the more recent developments, the efforts of additional graduate students have been of great assistance. Julie Meyers and Katleen Dethier assisted with gathering additional literature. Brian Stead-Dorval and Ken Lauer coordinated these students and made a number of contributions themselves. Other students, too numerous to mention, have worked on translations, masters theses, and doctoral dissertations to push our knowledge forward. Lilian Dabdoub and Helena Gil da Costa were particularly helpful in cross-cultural translations and preliminary validations in Spanish and Portuguese, while they were students at the University of Santiago de Compostela, and beyond. Many thanks are also due to Luc De Schryver for the Dutch and French translations and Guido Prato Previde for the Italian translation. Wouter Aerts and Michael Guerts from Belgium also made substantial contributions to our understanding and use of the SOQ.

By 2006, it was critical to expand and update the technical developments on the SOQ (Isaksen & Ekvall, with Akkermans, Wilson, & Gaulin, 2006). We had produced numerous revisions, many studies had been conducted, and we needed to compile all the information into one central resource. For this effort, one student deserves very special mention. Hans
Akkermans completed all the statistical analysis and designed the layout for the updated manual while completing his internship at Diepenbeek College in Belgium and also prepared the second edition (Isaksen & Ekvall, with Akkermans, Wilson & Gaulin, 2007). Hans is now a CPSB Associate, and continues to make many valuable contributions to the research and development of the SOQ. We also needed to support the expanding network of scholars, advanced graduate students, and qualified SOQ practitioners.

Many of CPSB’s clients have provided invaluable opportunities to apply the SOQ. These include: America on-line (AoL), American University, Army Materiel Command (and other organizations within the Department of Defense), Datex-Ohmeda (now part of GE Health Care), IBM, Indiana State University, Intel, International Masters Publishers, Pittsburgh Symphony Orchestra, PricewaterhouseCoopers, PSCU, Schneider Electric, the Center for Creative Leadership, and many others. Paul Saunders worked with GE on numerous programs, particularly with their Leadership for Innovation and Growth program, within which the SOQ was integrated. He has continued to take the SOQ into numerous global organizations.

The CPSB team was instrumental in moving this work forward. Erik Isaksen organized our substantial database and assisted in the analysis and writing of many of the results. Marves Isaksen kept the business going and was our editor-in-residence. Bill Shephard, Greg Lindberg, Kristin Isaksen, Jesse Bergeron, Matt Schuster, and Lee Loomis provided additional support. Dr. Donald Treffinger also provided detailed feedback and suggestions for improvement on these earlier editions.

In light of the expanding global network of researchers and practitioners, our next step has been to make these technical resources available through a series of downloadable documents from the SOQ website. William Montani and Thomas Skovli provided invaluable assistance for this effort.

The following are additional Technical Resources that are downloadable from our website.

**Conceptual and Historical Foundations of the SOQ (82 pages)**

Tells the story of the formation of the relationship with Göran and the early work to translate the CCQ. It also outlines the core conceptual frameworks upon which the SOQ is based.

**Development of the Situational Outlook Questionnaire: A Technical Resource for the SOQ (188 pages)**

Documents the translation and initial validation efforts of the first two versions of the CCQ, a third version called the Climate for Innovation Questionnaire (CIQ), and six additional versions of the SOQ. It includes the psychometric and other results aimed at improving the measure, its reliability and validity, as well as the development of the open-ended narrative questions.

**Psychometrics of the Current Version of the SOQ (26 pages)**

Summarizes the basic evidence for the reliability and validity of the current version (7) of the SOQ.
A Summary of the Evidence for the SOQ (32 pages)

Provides an introduction to the kinds of evidence suitable for reliability and validity and summarizes the current research in support of both for the SOQ.

Glossary of Terms (27 pages)

Contains the definitions of a variety of terms associated with understanding and applying the SOQ.

Readings and Resources on the Climate for Creativity: An Annotated Bibliography (64 pages)

Includes theses, dissertations, articles, chapters, books and monographs that relate directly to the use of the SOQ, as well as selected related literature on climate.

Applying the SOQ (30 pages)

Provides information, guidance, and examples for the three main applications of the SOQ including: organizational, team, and leadership development.

Translations of the SOQ (39 pages)

Shares results for the Dutch and Norwegian translations of the SOQ, illustrating the procedures for translation.

A Call for Future Research on the SOQ

An outline of needs and requirements for anyone interested in using the SOQ in their research.

Other technical and practical resources are available for those who complete the SOQ Qualified Practitioner Program.

Administering and Scoring the SOQ (36 pages)

Provides detailed information for practitioners about preparing to apply the SOQ.

Analyzing and Interpreting the SOQ (24 pages)

Provides detailed guidance for making sense of the quantitative and qualitative data derived from using the SOQ.

Presenting SOQ Results (19 pages)

Provides suggestions for making change happen and presenting the results from the SOQ.

Communicating about the SOQ (PowerPoint Deck)

A PowerPoint deck with over 180 scripted slides for practitioners to use.
CHAPTER 1
TAKING A SYSTEMIC APPROACH TO CHANGE

The purpose of this chapter is to set out the reasons you must consider the entire system of change, including the context within which the change, innovation, or transformation will occur. Taking into account the whole picture greatly increases your chances of success at implementing change and transformation. In particular, considering the readiness, willingness, and ability of the context to develop, accept, and sustain change efforts is one critical ingredient in creating and managing transformation.

The Business of Change

Every generation has had to deal with its own challenges regarding change. But, ever since the emergence of the industrial revolution in the early 20th century, the pace and impact of change has been increasing. In today’s world, almost every aspect of modern life is affected by change. And this change is significant, not minor incremental change. Many people complain about the pace of change, most people enjoy the benefits – and have come to expect sweeping innovations on a regular basis. Customers and consumers are demanding it; suppliers and vendors are pushing it.

Within this chaotic milieu, organizations are trapped. Rapid, significant change is required in order just to keep pace. Ideas considered brilliant just a few years ago are becoming obsolete at a frightening pace. Inside organizations, people’s responses span the spectrum of feeling elated to being paralyzed. Organizations themselves have developed a ‘change personality’, in which employees derive direction and receive support for their response to change.

And yet, some organizations are thriving in this environment. They are able to do this because they understand themselves very differently from those organizations that are struggling. They have learned to recreate themselves in a way that takes advantage of their strengths, focuses on opportunities and delivers results. This capacity to change sets them apart from competitors and places them at the forefront of profit and success (Collins, 2001).

This is not magic. It is grounded on solid strategies that unleash the innovative power of the organization and remove or minimize barriers to change. It takes advantage of the key change dimensions that must be addressed, and continually improves the organization’s capabilities in these areas. These dimensions are the foundation for successful change, and if understood and managed properly, they facilitate the change process. Like a sailboat gliding across open water at great speed, it is the ability to align people, structure and nature that lead to outstanding performance. Organizations must seek this level of performance and be able to sustain it, if they are to be successful in today’s globally competitive marketplace.

In this section, the foundation will be set for high-speed successful change. We will explore the building blocks of change: the nature of change and the organizational system within which people create change. This will lead us to the first major insight: understanding how the context for change impacts its speed and value to the organization.
The Nature of Change

People have been talking about change, defining it and trying to understand, manage and control it for a long time. Katzenbach (1995) defined it as “those situations in which corporate [organizational] performance requires most people throughout the organization to learn new skills and behaviors” (p.6). Kanter (1983) described change this way: “Change involves the crystallization of new action possibilities (new policies, new behaviors, new patterns, new methodologies, new products, new market ideas) based on re-conceptualized patterns in the organization. The architecture of change involves the design and construction of new patterns, or the re-conceptualization of old ones, to make new, and hopefully more productive, actions possible.”(p. 279)

Like creativity, change is difficult to define and all authors have their own take on it... all pretty much equally valid and insightful. At the simplest level, change means that something is different. Change can move the organization forward or backward and the impact of change is not usually immediately apparent. Conceptually, everyone is open to change, but in practical application there are many resistors.

It is perhaps easier to look at the process of creating change, as there appears to be more alignment here. For example, Dr. Elihahu Goldratt, developer of the Theory of Constraints method (Dettmer, 1997), outlines three steps in the change process: determine what needs to change, what it needs to change to, and how to cause the change. Similarly, Isaksen, Dorval and Treffinger (2011) outline a three-stage view: understanding the challenge to gain clarity, generating ideas to create alternatives, and then preparing for action to implement the change. Both approaches discuss a fuzzy or cloudy front-end that establishes the need for change and initiates some type of action. There are many other change models, most of which fall more or less in line with these two, though the method and tools can differ significantly.

Change requires action, direction and a goal. It requires that the organization arrive at the decision that the current state is not sufficient to achieve the desired goals and therefore something different must be put in place.

While this discussion about change might seem elementary and obvious, it is important to agree on exactly what we mean by change. Since there is so much of it, and it is such a vague concept, we must at least understand the purpose and process of change if we are to improve our ability to execute it successfully.

The Challenge of Change

Anyone spending any time with the literature on change will see – with some degree of humor – authors debating the notion of people’s resistance to change. Some discuss it as a fact of life that must be dealt with, while others claim that resisting change is not natural, but that a person’s (or organization’s) response to change depends on factors such as control and benefit, among others. The fact is, regardless of where or why it comes, there are obstacles to change that must be understood and appreciated in order for change to be effective. We define effective change as meeting these criteria:

- The change had the desired effect.
- The change was sustainable over time.
- The pain of change was less than the benefits of change.
However, in order to achieve this level of success, there are necessary conditions that must be met. There must be enough motivation/benefit to move the organization past the status quo, yet at the same time, there must be enough security through the change process to ensure that the organization does not self-destruct (on an individual or organizational level). Said differently, organizations must pay attention to the context of change.

Most change efforts fail to meet all three of the criteria. For example, researchers at Harvard examined the change efforts of Fortune 100 companies between 1980 and 1995 and found that virtually all had implemented at least one change program with an average investment of one billion dollars per organization. The results were disappointing. Only 30% produced an improvement in bottom line results that exceeded the company’s cost of capital. Only 50% led to an improvement in market share price. (Nohria, 1996) Similarly, most major programs of Business Process Re-engineering (BPR) failed to deliver the promised improvements in productivity or quality. For example two-thirds of 600 BPR cases studied experienced marginal or zero benefit, and many have simply been used as an excuse for rationalization and downsizing, e.g. typically 20% reduction in staff is experienced (CSC Index, 1994). Most recently, many large private and public organizations have invested in some form of Enterprise Resource Planning (ERP) as a catalyst for change, but “...such (technological) systems force change on an organization structure, working practices, policies and procedures that can hinder innovation” (Trott & Hoecht, 2004).

An example of the challenge of change comes from one very popular change method: downsizing (or as some prefer to call it, right-sizing). Despite the need for a comprehensive spectrum of change efforts, many of the initiatives that organizations currently undertake are merely aimed at cost cutting or “head-count reduction.” Some efforts are taken to improve the existing business -- like cycle-time reduction. Still fewer initiatives are being taken to develop fundamentally new ways of working or new business opportunities.

Recent evidence regarding the results of downsizing point to the need for better navigation of change efforts. Although the expected benefits from downsizing include lower overhead, decreased bureaucracy, faster decision-making, smoother communication, increased productivity and generally making an organization more efficient than its competitors, the actual results are disappointing. They include:

- More than 50% of the 1468 firms that restructured reported that productivity remained stagnant or deteriorated after downsizing (Henkoff, 1994).
- 74% of the senior executives surveyed within the 1468 firms indicated that they had experienced problems with trust, morale and productivity (Henkoff, 1994).
- Of 1005 downsized firms surveyed by the Wall Street Journal, only 46% had actually cut expenses, 32% had increased profits, 22% had increased productivity, and 22% had reduced bureaucracy (Bennett, 1991).
- 58% of the 1005 companies reported that employee morale was severely affected with some companies indicating a severe impact on the survivors (Bennett, 1991).
- Many organizations report an initial upsurge in productivity immediately after downsizing, but then become depressed and lethargic (Applebaum, Simpson, & Shapiro, 1987).
- Stock prices of firms that downsized during the 1980’s lagged behind the industry average in the 1990’s (Baumohl, 1993).
- Most firms do not succeed in their original effort and end up downsizing again, a year later on average (Pearlstein, 1994).
- Depression was a regular occurrence among most people involved in downsizing (Kets de Vries & Balazs, 1997).
As you can see from these results, downsizing as a way of dealing with the need for change does not offer the expected benefits. In summarizing their exploratory study on downsizing, Kets deVries and Balazs (1997) called for the creation of a mindset that concentrates unwaveringly on finding new learning opportunities that lead to innovative practices in the workplace. They outlined the need to reframe downsizing toward corporate transformation; the process of continuously aligning the organization with its environment and the shaping of an organizational climate in which the enduring encouragement of new challenges stands as central.

Downsizing also offers a key lesson for those who seek to guide change. Those who chose this approach to improving effectiveness probably did not make a mindful choice (Langer, 1989). For a while, it seemed as though every organization was going through some downsizing effort. It became a major line of service for some consultancies, who regularly offered senior management a prepackaged 5, 10, or 20 percent solution. Our point is that the change effort became a trend and this encouraged decision makers within organizations to go along with a poor choice. The alternative is to make a more mindful choice after considering some important key factors.

This is what we mean by taking a more systemic approach to guiding change. It means considering the centrality of people issues in successfully implementing change, while also thinking about the situation, climate, or culture. It also means considering a number of possible approaches to accomplishing the desired outcomes. Even the effects of downsizing can be dealt with productively (Noer, 1997). But the main message is that anyone who sees the need for change must look beyond a single, well defined or pre-packaged solution. It pays to look at the larger picture.

There is no shortage of novel change methods (e.g. Six Sigma, Lean, Theory of Constraints, Enterprise Resource Planning (ERP), etc.) that promise high returns and have evidence of significant success in other organizations. Organizations install these tools/methods without regard to the underlying work and customization required to make them successful. Merely following a template or copying someone else’s success is a sure recipe for failure. And, as the pace of change increases, leaders feel pressure to find a quick solution that ignores the necessary conditions listed above. The result is that solutions are forced into an organization, which creates resistance – both formal and informal – and the failure of change cycle repeats itself.

It is not surprising then that once an organization has gone through a change approach that does not work, the credibility of leadership is reduced within the organization. This affects not only the change effort, but the day-to-day operations as well.

An interesting dynamic begins to evolve. Leaders may claim success by reducing the expectations of the change initiative, overspending in terms of time, resources and budget, or by finding some element that can be highlighted. In the process, teams and individuals who bore the brunt of the effort have learned a lesson about organizational change and leadership support. These lessons create the foundation of resistance to future change initiatives.
A Survey of High Performers

Change, innovation and transformation have been completed successfully. PricewaterhouseCoopers (PwC) conducted a global survey in the mid 1990’s and studied 500 companies from seven countries in order to determine the capabilities that separated the top performers (those generating higher percentages of revenue from products and services developed within the previous five years) from the lower performers (Davis, 2000). They found three capabilities were absolutely essential to the high performing companies. The higher performers demonstrated a more inclusive and creative kind of leadership, took deliberate steps to manage their creative and idea management processes, and did not leave their climate or working atmosphere to chance.

This study pointed to the importance of taking a systemic approach. As you will notice from Figure 3 the high-performers were doing more of all three capabilities in order to get the desired results. The PwC research also uncovered some additional valuable insights about how change evolves over time:

- **Shocks trigger innovations**—change happens when people or organizations reach a threshold of opportunity or dissatisfaction.
- **Ideas proliferate**—after starting out in a single direction the process proliferates into multiple, divergent progressions.
- **Setbacks frequently arise**, plans are overoptimistic, commitments escalate, mistakes accumulate and vicious cycles can develop.
- **Restructuring of the innovating unit** often occur through external intervention, personnel changes or other unexpected events.
- **Top management** plays a key role in sponsoring—but also in criticizing and shaping—innovation.
- **Success criteria** shift over time, differ between groups and make innovation a political process.
- **Innovation involves learning**, but many of the outcomes are due to other events that occur as the innovation develops—making learning often ‘superstitious’ in nature.

![Figure 3: The Three Capabilities](image-url)
It is clear, then, that there are many facets to this thing called change. It is unlikely that a change initiative that is not well planned and led will be successful. Change must happen in some situation or framework, and thus we should investigate where change happens. This framework we call ‘the system’, and it refers to all aspects of the environment experiencing the change.

**Taking a Systemic Approach**

Regardless of the definition, change happens. But this is not the end of the story. In fact, often times changes made to an organization do not remain changed, either intentionally or organically. If the change implemented does not have the desired effects, management may decide to “call off” the change.

More likely, there is another, stronger power at work. We call this ‘the system’. Simply stated, the system is those elements of an organization that interact to create some type of organizational output. Systems desire stability and tend to protect themselves from change. When any change initiative does not respect the various elements that make up the system (e.g. focusing on only one or a few elements), the system reacts – oftentimes in a very strong way – to resist the change, similar to the way the body resists infection.

Systems theory studies relationships of systems as a whole. Founded by Ludwig von Bertalanffy, William Ross Ashby and others in the 1950s, it was built on concepts from the hard sciences such as biology, physics and engineering. Today, this approach is used in many fields including organization and management theory, and quality.

The essence of systems thinking is the recognition that the structure of any system – in the relationships with all its elements – is usually more important than the performance of individual components.

In his book The Goal, Eli Goldratt (1984) explained that understanding the way a system is connected is the foundation of creating sustainable change. He asserted that the more complex the system, the simpler the solution has to be. Consider the following example:

Adapted from E. Goldratt (1984)
These diagrams represent two different systems. Which one is more complex? If you are like most people, you might say it is the one on the right. From Goldratt’s perspective, the system on the right is much less complex because you know how the system operates. Because of this, you need only find the single point that is central to the system and you can change the whole system with that one point. To change the system on the left, by contrast, you must touch all four points because there is no way to know how the system is connected.

**The Creativity System**

There has been a great deal of work done to understand “system” from a creativity perspective. Rhodes (1961) identified four dimensions that he called person, process, product, and press. Much has been done to better understand the nature of the four dimensions of creativity. For example, research on person has led to the identification of many personality characteristics, cognitive abilities, and behavioral or biographical events associated with individual creativity. Work in the area of process has delineated various steps, stages, and strategies within the creative process. Studies of creative products have revealed important variables that distinguish more creative from less creative products as perceived by different people for different purposes. Finally, investigators have identified environmental or situational (press) factors that facilitate or inhibit creative performance. Rhodes (1961) initial attempt to outline the key elements of the creativity system has been supported by many other scholars in the field (MacKinnon, 1978; Mooney, 1963; Raven, 1984).

![Figure 4](image-url)

**Figure 4**

Approaches to Understanding Creativity

As Figure 4 illustrates, creativity involves the simultaneous interaction among elements of all four themes. In fact, Rhodes believed that only in unity do the four strands operate functionally.

Snow (1992) reviewed research that dealt with the hypothesis that “thinking skills reside in the person-situation interaction, not solely in the mind of the person” (pp. 19-20). Once individuals understand their style preferences they understand better their natural, personal approach to thinking and problem solving. As a result, they can approach the task of learning a creative process more constructively, rather than viewing their task merely as attaining proficiency with an externally imposed, fixed set of techniques.
In reviewing the person-process links, it became clear that the person-process interaction only addressed some of the important dynamics in understanding creativity and creative productivity. To optimize any person’s ability to learn and apply any creativity method, there was a need for a broader, more flexible approach, especially in the dynamic interactions among people, situations, processes, tasks, and outcomes. The truth is, an individual’s use of creative tools or approaches does not occur in a vacuum.

The early work of Guilford (1977), Torrance (1979), and MacKinnon (1978), helped to create a consensus that the phenomenon of creativity was anything but one-dimensional. Based on this and other research, it was clear that it would be more effective to build upon the multi-faceted nature of creativity through a systemic, rather than only elemental, approach. In this way, it would be possible to understand the natural interactions among the sources that lead to creative productivity.

Stein (1975) felt that, "In the final analysis, we need to know what kinds of people use what kinds of techniques with what kinds of problems under what kinds of conditions" (p. 283). These and other insights led to the development of a multi-dimensional framework to help understand, predict, and facilitate Creative Problem Solving performance (Isaksen, Puccio, & Treffinger, 1993).

This framework takes into account a constellation of cognitive, meta-cognitive, and personality characteristics; dimensions of the situation, such as climate and culture; elements of the task; process behaviors; and product or outcome qualities.

**A System for Change**

Our current model for guiding change includes four main dimensions: people, need or desired outcomes, context or situational readiness, and the method or approach to managing change (Isaksen & Tidd, 2006). This model has been derived as a result of taking an ecological approach to our research (Isaksen, Puccio & Treffinger, 1993) as well as a descriptive approach to creative problem solving (Isaksen, Dorval & Treffinger, 2011; Isaksen & Treffinger, 2004; Treffinger & Isaksen, 2005; Treffinger, Isaksen, & Stead-Dorval, 2006). From the conceptual point of view, creativity can be approached as a function of person, process, product and context. Creativity is a fundamental factor in producing change – something that is both new and useful. It should come as no surprise that the four “P’s” identified by Rhodes (1961) form the basis for a model for guiding change.
When change is viewed from a systemic point of view, it will be necessary to consider the main elements of creativity and innovation. The four main elements of a Model for Change Management include people, context, need and method (see Figure 5). When considering change within organizations it is natural to think about the people and the context or place involved in the change. This is related to the person-environment fit issue (Puccio, Joniak, & Talbot, 1995). An additional dimension includes the need and the method that relates well to the content-process issue. Each of the four main elements will be explored in more detail below.

**Product.** The actual change itself is a major factor that influences how the change program should work. The sponsors and leadership community must be very clear and specific about the desired future vision as well as the core values to be held constant. The image of the desired outcome must answer the question of core purpose for the change. The reason and concurrent emotion for the change helps people see what needs to be done and when it needs to be accomplished.

In order to focus on the right questions for people and situational issues, we must know as much as possible about the desired outcome. People must know and understand if they are dealing with an incremental improvement or a total transformation. Those who guide change are responsible to explain the scope and scale of the desired change.

We must answer questions like:

- What is the kind and degree of novelty required within the future image?
- What will not change (the core ideology)?
- When must the outcome be accomplished (long- or short-term)?
- What is the relationship between this new desired outcome and the current organizational strategy?
- Will new structures, systems, policies and procedures be required to sustain the desired outcome or just improvements in existing ones?
The core issues within the area of need include determining the degree of clarity of the image of the outcome or result and determining the kind of novelty desired. People will need to be able to develop a personal image of the desired outcome and take initiative to get there.

**Process.** The method or approach to change depends upon the people and the situation, as well as the desired outcome. Knowing what outcome you desire, along with understanding the people and place issues, does not tell you how to manage the change. When we know enough about these issues, we can then plan the most appropriate approach. We can then answer important questions such as:

- How mindful does our approach need to be (do we need to instill mental disciplines during this unique opportunity to learn or do we just want to take a transparent approach)?
- How fast does our approach need to be (do we need to build in some fast track activities or do we want the entire effort coordinated and fully planned)?
- How broad does the leadership community need to be?
- What’s the plan for engaging others within the organization?
- Can we use some common process approach or do we need to develop one?

Our approach to managing change relies on searching to understand as much as possible about the entire system surrounding the change. Then we design and implement an appropriate approach. We often rely on the flexible application of Creative Problem Solving (CPS) as well as other models and tools. Our application of CPS is formed by learning about the sponsors, clients and others involved in leading the change, plus an understanding of the context and the image of the preferred future.

Beware those who offer the “magic bullet!” Methods provide tools and helpful means for people to engage in change. There are no replacements for being mindful about the purpose or the philosophy surrounding the tools. All methods have their costs and benefits and they differ in terms of their ability to fit various circumstances. That’s the whole reason for taking a systemic approach.

**People.** Most change (revitalization as well as transformation) requires the involvement and active participation of a large number of people. Managers, leaders and followers will face ambiguity and discomfort during times of change. How the tension created by these messy situations is handled depends on the quality of leadership and the environments they create. The recent critiques of the $4.7 billion reengineering industry focus their explanations of the 70 percent failure rate on the over emphasis on engineering and ignoring the human dimension (Conner, 1998).

According to a study conducted by Arthur D. Little, the single biggest stumbling block to change is often an absence of adequate leadership and direction, not a fear of failure or lack of reward. The study of 350 senior executives from 14 major sectors of industry reported that:

> Some 64 percent of the respondents said their companies’ most daunting barrier to implementing change was a lack of buy-in among managers and employees that change was necessary in the first place. Four out of ten executives further identified turf battles, the absence of a senior management champion, and a lack of adequate implementation skills as major barriers. (Loos, 1993, p. 8).
Organizational leadership creates the climate within which people operate and interact. This climate will impact how people will behave and whether or not they will use their creativity to identify and resolve challenges and opportunities. Dealing with change within organizations means that questions and answers will come from different places. People still need to run the day-to-day operations while the change processes take place. There are many implications for a new kind of leadership that will be required to manage creative kinds of change. Questions that need to be asked include:

- What kind of change leadership exists (are there clear sponsors and leaders)?
- How ready are others in the organization to participate in a change program?
- How much diversity exists in the organization (cultural, functional, styles, etc.) and how well is it managed?
- What have people learned that will help or hinder future change?
- How have people managed their creativity resources?

Contemporary views of leadership must go well beyond the two classic dimensions of paying attention to people and tasks (Isaksen & Tidd, 2006; Vroom & Jago, 2007). A full spectrum of change must also be included which allows for focusing on management competencies when there are relatively stable conditions. As the need for a more extraordinary level of performance increases, then different leadership practices and strategies are required. Finally, when you need to operate at the edge of chaos, more attention is focused on establishing and maintaining intensely productive relationships with people and establishing higher performing work systems.

PricewaterhouseCoopers (PwC) researchers were able to identify ten fundamental characteristics that differentiate the highest from the lowest performers amongst those organizations surveyed.

A major insight from the study was that people surveyed within most of the successful organizations considered trust to be the most significant characteristic. Specifically, they reported a higher degree of management trust (Davis, 2000).

The trust factor describes an important aspect of the quality of relationships among people in organizations that are successful at introducing change. Kouzes and Posner (2007) reported the existence of a widespread credibility gap within organizations. They stated:

* Credibility is mostly about consistency between words and deeds. People listen to the words and look at the deeds. Then they measure the congruence. A judgment as “credible” is handed down when the two are consonant. (p. 47.)*

Kouzes and Posner (2007) also indicated that although more than 80% of office workers believed that it was important that management be honest, upright, and ethical, less than 40% of the workers believed that it was true for them. They point to the trust factor in overcoming cynicism and distrust and in closing the credibility gap.

Trust is commonly understood as a single thing, usually having to do with the level of assured reliance on someone’s character or degree of truth. Rather than being a single dimensional factor, trust is being seen more frequently by researchers as multi-dimensional (Mishra, 1996; Kramer & Tyler, 1996; Reynolds, 1997; Rousseau, Sitkin, Burt, & Camerer, 1998). These multi-dimensional views approach trust as the willingness to be vulnerable to another based on belief of competence and values; particularly those of honesty, concern and alignment of words and actions.
As you can see from Figure 6, trust can be illustrated both as a belief in the competence of the individual to perform various tasks and the degree to which an individual is in agreement with a certain set of values. When seen in this way, trust can be understood in terms of the interaction of values and competence. When we have low belief in people’s competence and their values are very different, this diversity is not seen as important or valuable in the organization. The result is that people who are characterized this way may be discounted. When someone is seen as very competent but holding a different value set, you are likely to see controlling behavior and use of power to keep the individual aligned. When values are clearly aligned, the response may be to develop the competencies that are needed for accomplishing the task. When you know people are competent and hold similar value sets, you will want to get out of their way and let them lead.

A key issue, when it comes to change leadership, is the kind of ownership and sponsorship that exists to enable people to make the change happen. People within organizations who are being asked to change must be able to trust their leaders. As Kouzes and Posner (2007) indicated:

To take people to places they have never been before, leaders and constituents must be on the same path. And to get people to join the voyage of discovery voluntarily requires that the aims and aspirations of leaders and constituents are harmonious. (p. 48)

**Place.** Managing change means understanding the situational readiness for the transformation, and the forces operating for and against the initiative. This key area relates very strongly to the finding from the PwC study identified as creating the climate, as well as the key role leaders play in climate creation.

A few of the major questions to consider include:

- How has the organization handled change in the past (history)?
- What are the current changes the organization faces (map the landscape)?
- What kinds of resources are available to help implement the change effort?
- How is power used in making decisions and taking action?
- To what extent do people have a clear idea about the vision and values of the organization?
We now have improved ways of diagnosing organizational health. In much the same way that medicine has moved away from treating obvious symptoms, we can now examine the vital signs that tell us how ready the organization is to create new products and lead change and make transformation happen. We can use these assessments to examine the strengths, weaknesses and needs within an organization. The assessment we use is the Situational Outlook Questionnaire® (SOQ) that is described in much more detail in this manual. Context, climate and culture are critical factors to consider when implementing strategic change and transformation at an organizational level. They are also important to consider for creating the atmosphere for productive teamwork. There is plenty of research to support these statements. We have outlined four major reasons for considering climate below.

**Climate is a key capability for innovation and growth**

One of the key insights from the PwC Global Innovation and Growth Survey centered on the importance of creating the context and environment for innovation. Davis (2000) indicated:

Even with all our modern tools and technology, at the heart of all innovations are people using their creative capacities to develop new ideas. However, the motivation we feel to do this depends on our perception of how acceptable it is in the situations we work in; the working environment or climate has a significant effect (p. 18).

So those organizations that are effectively meeting the innovation challenge are clearly focused on creating a productive workplace environment; one that is rich with ideas and alternatives. Organizations that are in the high-performing category also yield more sustained bottom-line growth, improved market capitalization, and better return on capital employed (regardless of industry).

**Climate is a key factor in helping organizations manage change**

A comprehensive survey of Performance Improvement Strategies of Manufacturing and Service Organizations conducted by the Center for Manufacturing and Service Excellence provided evidence that those organizations that deliberately managed their climates improved their bottom-line results. Those organizations managing their climate had higher success rates for new product introductions, decreased their product time to market, and increased their overall profitability. In addition, this study pointed out that climate was a critical factor in helping organizations manage change more effectively.

Organizations with better climates promote the use of more sophisticated work designs that enable them to better handle chaos and constant change. These climates also provide increased support for working more effectively at a global level, and increase the effectiveness of more productive teamwork and knowledge sharing (Firenze, 1998). Companies with a more favorable working climate achieved higher levels of interaction and flexibility, as well as higher sales volume and productivity. In fact, social strategies aimed at climate improvement had a stronger effect on performance than technology.

The findings from this US National Survey are also supported by a comprehensive review of the literature provided by Isaksen and Tidd (2006) in their book *Meeting the Innovation Challenge*. Isaksen and Tidd found that taking a systemic approach to change and transformation was much more successful than focusing on any single element of the system. The system they outlined included the climate of the organization.
Climate is a key factor promoting improved business performance
Organizational or corporate contexts can have a profound influence on their long-term economic impact. Kotter & Heskett (1992) found that those companies that intentionally and effectively managed their working environments consistently outperformed companies that didn’t. As you can see from the table below, they found that the revenue, market value, and net income of those that managed their environments were much more likely to have better business performance over a ten-year period.

<table>
<thead>
<tr>
<th>Deliberate management of context</th>
<th>Context left to chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>682% Increased Revenue</td>
<td>166%</td>
</tr>
<tr>
<td>901% Stock Price</td>
<td>74%</td>
</tr>
<tr>
<td>756% Net Income</td>
<td>1%</td>
</tr>
</tbody>
</table>

Kotter & Heskett (1992)

Harter, Schmidt and Keyes (2002) provide even more support for the importance of climate in relation to improved business results. In their review of the Gallup Studies, they asserted that business units in which leaders and managers deliberately focus on creating a climate that engages its workforce are much more likely to have higher rates of profitability and productivity, as well as customer loyalty.

Climate is key to well-being in the workplace
The Gallup research (Harter, Schmidt & Keyes, 2002) also supports the importance of climate on increased levels of job satisfaction, decreased stress in the workplace, and lower rates of employee turnover. They concluded that well-being in the workplace had to do with satisfying basic human needs – that clarifying desired outcomes and increasing employee opportunity for individual fulfillment and growth was strongly connected to the success of the organization. They stated:

The data indicate that workplaces with engaged employees, on average, do a better job of keeping employees, satisfying customers, and being financially productive and profitable. Workplace well-being and performance are not independent. Rather, they are complimentary and dependent components of a financially and psychologically healthy workplace (p. 16).

Research conducted by Ekvall also supports the connection between well being and climate. Feelings of contentment and enthusiasm are associated with productive climates, and feelings of depression and anxiety are associated with a negative workplace. In short, climate is closely aligned with improved job satisfaction, the perception that it is acceptable to produce creative and meaningful outcomes, and a healthier personal outlook.

The Model for Organizational Creativity (described in more detail in this publication) illustrates a few of the key attributes that impact the overall performance of individuals, groups and the organization. When we examine the context, these are the characteristics on which we check. From our experience, there are usually very different levels of readiness in every workplace.
The SOQ contains a number of open-ended questions that help to obtain information on many of the factors in the Model for Organizational Creativity. If the leaders within the organization desire radical innovation and change, then we must know that the capabilities are within the organization to develop and sustain this kind of change. Whatever the kind of change, it will be helpful to think about the context from the point of view of the individual, the team or group, as well as the entire organization.
CHAPTER 2
CONTEXT: CULTURE VERSUS CLIMATE

It is common to hear leaders and managers proclaim, “...What we need around here is a culture change!” Like many things, this is much easier said than done. If we take transformation seriously, then we must have a good understanding of what culture is and what it would take to change it. We conjure up images of cultural anthropologists studying far away tribes and civilizations when we think about culture.

Those who lead change often find that the actual change they are trying to implement is influenced by many other factors that make a difference. As we discussed earlier, taking a systemic approach to guiding change includes considering the people involved in the change, the method or approach you are taking and the situation surrounding the effort. Each of these areas provides an entire domain for inquiry and consideration. How much effort you choose to put into each one (or any) depends on how important the change is and how much time and energy you have. Any successful change will require some knowledge and use of each of these areas.

One of the broadest factors to consider is the context for creativity and innovation for transformation. The word “context” can be taken to mean something as broad as society or national culture, as well as something very limited, like the working climate within a team.

We will present definitions and distinctions amongst the concepts we intend to measure, and those that are outside the scope of our approach to assessment as our technical resources seek to provide a comprehensive presentation of the evidence regarding the assessment of climate. This chapter overviews some of the important factors to consider when guiding change within organizations. Then, we will focus on the ideas of climate and context for change and creativity.

What is Culture?

Many writers have offered a variety of definitions of culture (Hofstede, 2001; Trompenaars & Hampden-Turner, 2004). Thankfully, there are consistent themes among this diversity. Culture consists of deep and enduring patterns of how individuals and groups make decisions and demonstrate priorities about value differences. These value differences can be organized into dichotomies like people are good versus people are evil. Cultures can be more or less synergistic depending on the extent to which those who hold contrasting value orientations can and do work with each other. Cultures that hold strictly to one value polarity to the point that the opposing value is consistently put down and not tolerated can become stagnated.

In general, culture is something that:

- Is shared by all or most of the members of some social group
- Older members usually try to pass on to younger members
- Shapes behavior and structures perceptions of the world
As such, culture can be described as collective programming of the mind or as Hofstede (1997) has called it, “software of the mind.” This collective software of the mind distinguishes the members of one social group from another.

Many writers see culture as something that is stable, deep, and reinforced by a history of decisions, use of power, and learned strategies for answering fundamental questions. The earliest meaning associated with the word culture was the way in which people in a particular area took care of the soil – as in cultivate, plant, etc. How people worked with soil in the region was influenced by a number of key factors and was aimed at producing the best yield possible given those conditions. Just as this early use reflected the development of a specific way of dealing with certain environmental conditions, our current use of the word culture has been formed based on how different societies have chosen to deal with certain similar issues. In a way, what defines a culture is how those within it have chosen to answer certain basic questions, particularly when they must confront similar problems (dealing with the external environmental forces) as a society:

- What is the nature of humans? Are people good or evil? Can people change or are they resistant to change?
- What is the nature of our relationships to each other? Is the focus on me, as an individual or me as a member of a group? What are the implications of being born a male or female? How do we deal with the unequal distribution of power?
- How do we consider time? Do we make choices about our efforts based on the past, present or future?
- How do we deal with space? Do we think about our personal and private use of space or do we think in terms of the public domain?
- What is the nature of human activity? How do we deal with authority or control? Are we more about doing or being?
- What is the nature of reality and truth? How do we face an uncertain or ambiguous future?
- What is our relationship to nature? Do we think we should control or dominate it or live in harmony with it?

Cultures differ in their responses to these questions, but the questions are the same for each. The choices certain cultures have made regarding these questions reflect the shared values and deeply held assumptions they hold. Research has identified a number of different dimensions upon which cultures differ. Table 2 summarizes the dimensions upon which cultures have been found to differ from the point of view of two prominent cultural researchers.
### Table 2
**Dimensions of Culture**

<table>
<thead>
<tr>
<th><strong>Fons Trompenaars:</strong> Culture is the pattern by which a group habitually mediates between value differences, such as rules and exceptions, technology and people, conflict and consensus, etc. (2004: p.22)</th>
<th><strong>Geert Hofstede:</strong> Culture is the collective programming of the mind that distinguishes the members of one group or category of people from another. (1997: p.5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Universalism versus Particularism</strong> – deals with rules in open spaces and the dilemma when no code or rule seems to cover an exceptional case. Should you shade the evidence for the sake of friendship?</td>
<td><strong>Uncertainty Avoidance</strong> – The extent to which the members of a culture feel threatened by uncertain or unknown situations (expressed through nervous stress, need for predictability, need for written and unwritten rules).</td>
</tr>
<tr>
<td><strong>Individualism versus Communitarianism</strong> – Is the emphasis on personal freedom, human rights, competitiveness, or social responsibility, harmonious relations, cooperation?</td>
<td><strong>Individualism versus Collectivism</strong> – Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself and his immediate family. Collectivism pertains to societies in which people from birth onwards are integrated into strong, cohesive groups, which throughout people’s lifetimes continue to protect them in exchange for unquestioning loyalty.</td>
</tr>
<tr>
<td><strong>Specificity versus Diffusion</strong> – Are we more effective when we analyze things by reducing them to specifics (facts, items, tasks, numbers, units) or when we integrate and configure these into diffuse patterns, relationships, understandings and contexts?</td>
<td></td>
</tr>
<tr>
<td><strong>Achieved versus Ascribed Status</strong> – Is what you’ve done or track record more important than who you are or your potential connections?</td>
<td><strong>Power Distance</strong> – The extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.</td>
</tr>
<tr>
<td><strong>Inner versus Outer Direction</strong> – Should we be guided by our inner convictions, moral compass, or conscience, or by signals from the wider social and physical environment?</td>
<td></td>
</tr>
<tr>
<td><strong>Sequential versus Synchronous Time</strong> – Is it more important to do things fast, in the shortest sequence of passing time, or to synchronize efforts so that activities are coordinated?</td>
<td><strong>Long-term versus Short-term</strong> – The relative emphasis on quick results, saving face, respect for social and status obligations regardless of cost and respect for tradition, versus perseverance toward slow results, willingness to subordinate self for a purpose, respect for social and status within limits, and adaptation of tradition to fit a modern context.</td>
</tr>
</tbody>
</table>
Neutral versus Affective – Should we communicate the full extent of personal feelings or should we behave “professionally” with an air of detachment and dispassion so to focus more on the tasks to be accomplished?

Masculinity versus Femininity – The relative importance of earnings, recognition, advancement, and challenge (material success and progress are dominant values) versus working relationships, cooperation, employment security, and living in a good location caring for others and preservation are dominant values.

What is Organizational Culture?

Organizational culture is a different concept from national or regional culture. Most people have exercised a choice to join a place of work whereas people are born into particular societies. People who work in organizations usually have limits on how much time they spend there (or at work) and have other discretionary time available. People are generally free to leave an organization and may do so more easily than leaving a society. In any case, we have seen an increased interest in the idea of organizational culture.

Organizational culture should describe the shared mental programming of those within the same organization, particularly if they share the same nationality. Research has shown that organizational cultures can and do differ in six important areas.

- **Process versus results orientation.** Focus on the means or the way things are done, such as quality management or process improvement, versus a bias for action and results, such as ‘management by objectives’.

- **Employee versus job.** The classic tension between concern for people, versus concern for the task, for example, the so-called ‘European Social Model’ versus the ‘Anglo-Saxon’ liberal market approach.

- **Parochial versus professional.** Identity derived from the internal organization, versus identity with a specific type of job.

- **Open versus closed systems.** Broad definition of organizational boundaries with a high degree of interaction with the environment, versus a narrow organizational focus, for example, the ‘not invented here’ syndrome.

- **Loose versus tight control.** A high degree of autonomy regarding ends and means, versus a more prescriptive and directive approach.

- **Normative versus pragmatic.** A focus on following the bureaucratic rules and procedures, versus meeting the needs of the task or customer.
What does culture include?

- **Values, Beliefs and Deeply Held Assumptions.** Values are general beliefs that function to define what is right or wrong, or specify general preferences. They influence behavior because they are broad tendencies to prefer certain states of affairs over others. They are similar to deeply held assumptions.

  In an organizational context, values can sometimes be specific and explicit. When we first started consulting with DuPont’s Innovation Initiative in the early 1990’s we were impressed with the many successes in new product development. There were, however, some challenges in implementing some of the strategies included within the innovation initiative. We also ran into a number of rules when we visited numerous factories and locations. We could not run on DuPont property, for example. When we looked deeper into the culture, it became very clear to us that DuPont held a strong value for safety. Later, we were able to visit the site of the founding of the E. I. Du Pont de Nemours gunpowder manufactory in Wilmington, Delaware. It was a pretty location on the Brandywine River, which served as the power source in the early 1800’s. We noticed that the buildings where the gunpowder was produced, three walls were made of very thick stone, but the side facing the river was made of thin wood. Not a single nail was used in the construction of these buildings for fear that a small piece of metal could fall and make a spark.

  The family home was not very far from the buildings that made the gunpowder. So, from the very founding of the company, there was always a great concern for safe operations and limiting the risk of harm to people. In this way, many deeply held values are embedded in organizations.

- **Symbols.** Symbols are words, gestures, pictures, or other objects that carry and convey meaning to a particular group that share a common culture. In an organizational context they can include flags, status symbols, manner of dress, etc. In some organizations the size of the desk or chair can say something about the level of seniority or management of the person who occupies the office.

- **Heroes.** Heroes are people who can be either dead or living, real or imaginary, who possess highly valued characteristics. As such, they serve as role models for preferred or desired ways of behaving. Many organizations have formal or informal heroes. In some R & D divisions you can see large pictures hung in prominent places of those who have generated important patents or breakthrough innovations.

- **Rituals.** Rituals and customs are activities that seem nonessential to the actual functioning of the group, but they are considered socially necessary. These behaviors are reinforced over time – forming traditions that are filled with implicit meaning. In an organizational context this could include the way greetings and initial social exchanges occur during meetings. Some reward and recognition programs can be seen as required rituals in many organizations.

  Rituals, heroes and symbols are visible to the observer, yet their meaning is invisible and may require interpretation.
Can leadership change culture?

According to Schein (2010), there are three main sources that form any organizational culture. First, there are the beliefs, values and assumptions of the founder. Next, the learning experiences of members as the organization evolves and grows can also influence culture. Thirdly, organizational cultures can change as a result of new beliefs, values, and assumptions brought into the organization from new members and leaders. The most profound of these tends to be the founding leaders as they have strong theories about how things should be done and these get tested early in the organization’s life. If the organization makes it through the many early tests of the Founder’s theory, the beliefs and assumptions of that Founder exert a profound influence on the culture of the organization. If circumstances change, and those assumptions are no longer viable, then the organization must change its culture or die.

During the founding stage, the culture is formed primarily by what the founding leader does and to what he pays attention. As the organization grows, and the founder may no longer be in the picture, smaller units are created based on the needs for functional specialization, geographic decentralization, and by creating divisions to deal with unique products, markets or technological areas. These smaller units begin the process of culture formation with their own leaders making it even more complex to manage culture change.

Since culture is such a deep, stable, complex set of shared assumptions that are built over relatively long periods of time it is not an easy task for new leaders to change it. Further, many definitions of culture specifically exclude behavior. When we see what leaders have done to actually influence culture change, they have actually focused their efforts more on the working climate. For example, Schein (2010) identified six primary mechanisms leaders use to embed a culture. These include things like what leaders pay attention to, measure and control, as well as a number of other observed behaviors like the criteria leaders use to allocate scarce resources and rewards.

For example, most large organizations in the private and public sectors now use explicit measures of or targets for performance to try to manage and improve. It has become a cliché, but ‘what gets measured gets managed’ and the converse ‘what doesn’t get measured doesn’t get done’ is largely true in most organizations. This observation has a number of important practical implications. Some of these implications include:

- Performance measures do influence behavior, although clearly they are not the only influence.
- Measures can affect behavior in positive and negative ways, and therefore the choice of measures used is critical.
- It forces managers to review their activities and to decide which are most important. Without measurement it is impossible to determine current performance or to prioritize resources for improvement.
- It provides a guide to the direction and rate of improvement. Measures provide useful feedback on the relative success of initiatives, and are the basis of continuous improvement and organizational learning.
- Linking measures of performance with incentives and rewards can help to direct and sustain employee motivation and effort. These include extrinsic rewards, such as appraisal, income and promotion, and intrinsic rewards such as personal pride, acknowledgement and competitive instincts.
However, inappropriate measures can be worse than having no measures at all. A common failing in many organizations is that what gets measured is not that which is most important, but that which is most easily measured. Managers, and more recently civil servants and politicians, tend to focus on those issues for which data already exists or are easily created, however important or relevant such measures might be. For example, many organizations rely on inappropriate measures derived from management accounting because in most cases the data already exists. However, such measures are at best incomplete, and at worst misleading, because of arbitrary decisions regarding allocation of overhead. In contrast, we will advocate only the measurement of what is considered important to an organization, however difficult or imperfect such measures might be. Common problems include:

- **Measuring the wrong things.** There is a bias towards financial measures and other easily collected data, rather than developing measures that relate to the underlying processes and performance of the organization. For example, in the UK and the US the government publishes league tables of schools based on examination results. Such data are relatively easy to collect, but do not reflect the quality of the schools in the sense of the value they add. To do this would require some measure of the quality of students upon enrollment.

- **Failure to define or understand the processes.** Measures are often imposed by managers (or civil servants or politicians) too remote from the process to understand the detailed requirements. As a result, measures and targets may be unrealistic. For example, targets for growth are often set at an arbitrary level based on the past year’s performance, rather than on the basis of the scope for improvement that might be greater or smaller than the target set. Process analysis makes it easier to understand the underlying operations and therefore identify appropriate measures and targets for improvement.

- **Failure to distinguish between measures for control and improvement.** Managers tend to view measurement as a means of control, and therefore often fail to develop measures that can be used by staff for improvement. For example, most measures adopted by management accounting have been developed to control, rather than to improve. Targets for recovery of overhead do nothing to help reduce overhead, and variance against budget does nothing to encourage cost reductions if budgets are achieved.

- **Fear of increased management control and lost autonomy.** The flip side of the previous problem is that staff are likely to resist measurement if they believe that this reduces their autonomy and increases management control. For example, in customer call centers used for services such as telephone banking and insurance, staff are continuously monitored. A typical measure used is the time taken to deal with a customer, and targets of a few minutes are common. This can create stress and discourage staff from providing an adequate service to customers.

- **Fear of exposing poor performance.** Any new measurement regime is likely to identify areas of poor performance, and therefore the managers and staff responsible are likely to resist. In such cases it is essential to create a secure and positive environment, stressing the potential for improvement and growth, rather than rationalization. For example, for many manufacturing companies the demand for their products is stable or declining.
Therefore any improvements in productivity are likely to result in job losses, which does not encourage cooperation. Under conditions of growth it is much easier to implement productivity and quality improvements. This is an example of inadvertent reinforcement – when the measure is designed to do one (productive) thing, but it ends up producing unintended results.

- **Additional bureaucracy and administrative burden.** The need to measure can be seen as a distraction from the ‘real’ job – as a non-productive task. In this case, the potential for improvement needs to be communicated clearly, and the time and training provided to develop, pilot and conduct measurement. For example, in many services there has been a proliferation of service-level agreements and customer feedback and assessment measures.

Figure 7 shows the results of a survey of 203 organizations (Lingle & Schiemann, 1996). This confirms that financial and operational measures are the most common, and that measures of quality, innovation and environment are less common.

**Figure 7**

*Use of performance measures (n = 203)*
This survey identified a number of issues:

- Financial measures of performance are almost universal, and in most cases are included in staff reviews and linked to compensation.
- Measures of operational performance are commonplace, but are much less likely to be included in staff reviews or compensation.
- Less than half of firms have measures of customer satisfaction, but around three-quarters of these include the measures in staff reviews, and just over a third also link these measures to staff compensation. However, in absolute terms less than 20% of firms link customer satisfaction to staff compensation.
- Only a small proportion of firms have measures of employee satisfaction, environmental impact or innovation, and even those that do rarely include these in staff reviews or link to compensation.

We are not suggesting that everything of value can or should be measured, or conversely that only those activities that can be measured are valuable. Every organization is unique in the sense that it has its own history and culture. Still they all operate (to varying degrees) in an environment of customer demands, competitor threats and regulatory requirements. Together, these internal and external contextual factors will shape and affect measures of performance. Therefore the objectives of and approaches to performance measurement will vary, ranging from more traditional goals such as cost reduction or quality improvement, to less common goals such as stimulating innovation or environmental sensitivity. When we examined such mechanisms, we found that they are not actually culture, but more about the perceived behaviors of those who live and work in the organization.

**What is Climate?**

Climate is defined as the recurring patterns of behavior, attitudes and feelings that characterize life in the organization. At the individual level of analysis, the concept is called psychological climate (Isaksen & Lauer, 1999; James & Jones, 1974). At this level, the concept of climate refers to the intrapersonal perception of the patterns of behavior, attitudes and feelings as experienced by the individual. When aggregated the concept is called work unit or organizational climate (James, 1982; James, James, & Ashe, 1990; Turnipseed, 1994). These are the objectively shared perceptions that characterize life within a defined work unit or in the larger organization. Climate is distinct from culture in that it is more observable at a surface level within the organization and more amenable to change and improvement efforts (McNabb & Sepic, 1995). Culture refers to the deeper and more enduring values, norms and beliefs within the organization (Ekvall, 1996; Schneider, Brief, & Guzzo, 1996).

As Figure 8 illustrates climate is often assessed by obtaining the perceptions of observers through questionnaires and assessments. These are then aggregated to obtain an understanding of the organizational climate. This figure also illustrates that many other factors can influence the organizational climate.
Figure 8
Factors Affecting Climate

The domain for our inquiry (and the main construct for our technical resources) is the climate for creativity, innovation, and change in the organization. Climate is a scalable concept, in that it can be examined at the level of the work unit or group, the division or function, or at the entire organizational level. As such, it is influenced by the culture and other factors on the Model for Organizational Creativity (MOC; see Figure 9). Together, these factors create the larger context or work environment, within which climate is one key intervening variable. The climate for creativity and change is that which promotes the generation, consideration, and use of new products, services, and ways of working. This kind of climate supports the development, assimilation and utilization of new and different approaches, practices, and concepts.

Culture versus Climate

The two terms, culture and climate, have been used interchangeably by many writers, researchers, and practitioners. Ekvall (1987) defined climate as typical behaviors, attitudes, and feelings in the organization. These are consistent patterns of behavior with regard to both the individuals and situations. He outlined two very different theoretical approaches to the concept of climate. He called these realistic or objectivistic, and subjectivistic and phenomenological. According to the objectivistic tradition, climate exists in reality and can therefore be observed and studied in various ways. In this way, climate of the organization exists independently of the perceptions of the members of the organization and is an objectively existing part of organizational reality.

The alternative approach to understanding climate is called subjectivistic. For this approach climate is regarded as a perceptual and cognitive structuring of the situation as commonly held by its members. Individuals encounter a variety of events or phenomena and interpret
them through cognitive maps. When organizational members interact and exchange these maps, common ways of perceiving and interpreting the climate can emerge.

Either way you consider climate, there are many similarities to how it is actually studied empirically. For a more thorough review of the climate-culture distinction see Denison (1996) or Ehrhart, Schneider, and Macey (2014).

We have found that the following distinctions may help those who are concerned with effecting change and transformation in organizations.

- **Different levels of analysis.** Culture is a rather broad and inclusive concept. Climate can be seen as falling under the more general concept of culture. If your aim is to understand culture, then you need to look at the entire organization as a unit of analysis. If your focus is on climate, then you can use individuals and their shared perceptions of groups, divisions, or other levels of analysis. Climate is recursive or scalable.

- **Different disciplines involved.** Culture is within the domain of anthropology and climate falls within the domain of social psychology. The fact that the concepts come from different disciplines means that different methods and tools are often used to study them.

- **Normative versus descriptive.** Cultural dimensions have remained relatively descriptive, meaning that one set of values or hidden assumptions were neither better nor worse than another. This is because there is no universally held notion or definition of the best society. Climate is often more normative in that we are more often looking for environments that are not just different, but better for certain things. For example, we can examine different kinds of climates and compare the results against other measures or outcomes like innovation, motivation, growth, etc.

- **More easily observable and influenced.** Climate is distinct from culture in that it is more observable at a surface level within the organization and more amenable to change and improvement efforts.

Within the larger system for change, context describes the place, environment, or situation. As such, it interacts with the various methods, people, and tasks. Context itself is often described as the culture. Within an organization, it is often referred to as organizational culture. The tradition we follow when working with our organizational assessments of climate makes a clear distinction between this concept and culture (see Table 3).
Table 3

Organizational Culture and Climate

<table>
<thead>
<tr>
<th>Culture</th>
<th>Climate</th>
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</thead>
<tbody>
<tr>
<td>The values, beliefs, history, traditions, etc., reflecting the deeper foundations of the organization.</td>
<td>Recurring patterns of behavior, attitudes, and feelings that characterize life in the organization.</td>
</tr>
<tr>
<td><em>What the organization values</em></td>
<td><em>What organization members experience</em></td>
</tr>
</tbody>
</table>

We are not alone in making such a distinction. Thomson (1998) also indicated that:

*Changing the culture of an organization by tackling it head on as a single facet of organizational life is really, really tough. To go deep into cultural change you have to be talking about beliefs and values, and these go to the very soul of the organization and its people. It is much easier to change the climate and language of the business.* (p. 240)

This is not to assert that culture is not an important part of context, just that we have taken a deliberate stance toward a more behavioral approach and made a deliberate attempt to further define the constructs we have attempted to assess. The following chapter of this manual will illustrate more specifically how we put climate in context by examining the Model for Organizational Creativity.

Much of the literature uses the terms milieu, context, work environment, culture and climate interchangeably. Organizational context and work environment are the most inclusive constructs as they refer to the broader setting, situation, or surroundings of the organization (Meusburger, 2009). Organizational culture and climate are generally conceived as being a part of the context or work environment, and there is now support for making clear distinctions between them (Cooper, Cartwright & Earley, 2001; Ostroff, Kinicki, & Tamkins, 2003; Peterson & Fischer, 2004).

Similar to other organizational psychologists (Denison, 1996; James, Choi, Ko, McNeil, Minton, Wright & Kim, 2007; Kuenzi & Schminke, 2009), Ekvall differentiated the concepts of climate and culture. Ekvall (1991) defined climate as the observed and recurring patterns of behavior, attitudes, and feelings that characterize life in the organization. He also asserted that culture reflects the deeper foundations of the organization and includes values, beliefs, deeply held assumptions, history, traditions, symbols and rituals. According to this distinction, culture provides the foundation for patterns of behavior that are more readily observed, described, and changed. These patterns of observed behavior establish the climate within the organization. Climate is what members of the organization experience, while culture reflects what the organization values. Schein (2010) supported this differentiation by identifying climate as an artifact of culture.
CHAPTER 3
A MODEL FOR ORGANIZATIONAL CREATIVITY

The context or work environment for organizational creativity, innovation, and change includes both culture and climate (Isaksen & Tidd, 2006). Although these concepts are different, they interact, along with many other factors to create the broader context of the organization. The purposes of this chapter are to define a variety of the factors that influence organizational change, and put climate in its context.

Rather than approaching an all-inclusive or molar conception of work environment, many climate researchers have focused more on specific aspects and strategic outcomes of organizations (i.e. climates for safety, justice, service, etc.). Schneider (1975) and Schneider and Reichers (1983) had argued that since there are many different types of climates, it was more productive to take a facet-specific or referent approach – answering the “Climate for what?” question. Taking this facet-specific approach has promoted a great deal of progress, but so many diverse aspects and findings have made synthetic integration difficult (Kuenzi & Schminke, 2009). The development and use of appropriate conceptual models may promote this needed integration.

It is well beyond the scope of this chapter to review the burgeoning research and writing on the broad topic of creativity. There are numerous synthetic reviews that do this job (see: Isaksen, Murdock, Firestien, & Treffinger, 1993a&amp;b; Richards, 2007; Sternberg, 1999; Sawyer, 2012; for example). Within this wide-ranging interdisciplinary field, there has also been some interest in understanding and setting the organizational conditions for creativity.

The historical roots of taking a facet-specific and multi-disciplinary approach to understanding the organizational milieu for creativity can be traced to a unique seminar convened at the University of Chicago’s Graduate School of Business in 1962, to explore the factors that foster or impede creativity within organizations (Steiner, 1965). Sixteen eminent scientists, scholars, and executives presented their research and points of view on the topic. In the summary volume, Stein (1965) presented his preliminary research to support taking a transactional approach in this way:

*Creativity is a process that occurs in an individual who exists in a social context. Both the complete understanding of the creative process and the increased probability of accurate predictions as to who will and will not manifest creative behavior, therefore, depend on our knowledge of the individual’s environment, his psychological characteristics, and the transactions between the two.* (p. 155)

Andrews (1965; 1975; Peltz & Andrews, 1966) conducted one of the earliest facet-specific empirical research programs into the creative work environment. They studied the social and psychological factors influencing the creative process of 115 research scientists. They found that intelligence and creative ability were poor predictors of innovative productivity. Andrews (1975) found that the output of these scientists was influenced by: seeing themselves as having opportunities and responsibility for innovating, exercising relatively large amounts of influence in decision-making, perceiving their supervisory and collegial
relationships as positive and their employment as stable, and having a low degree of perceived interference from administrative supervisors. An important insight from this foundational work was the cumulative effect of these four factors. If none of these conditions were present, the correlation with creative and innovative output was -0.97. As one, two, three, and four factors were present the correlations were -0.40, -0.19, -0.07, and 0.55, respectively. Although many believed that simply selecting those with high intelligence and creative ability was sufficient to produce innovative productivity – the key was to provide an appropriate fit within their setting (see also: Cummings, 1965). Further, there were multiple elements involved in providing these conditions. It is now quite clear that “…contextual factors often do not act independently” (Agars, et. al., 2012, p. 282).

Models of Organizational Creativity

Since these early efforts, there’s been an explosion of both popular and academic literature to develop models of organizational innovation (Scott & Bruce, 1994; Tidd, 2006), change (Burke & Litwin, 1992; van de Ven & Poole, 2005), and creativity. In addition to emerging research and literature that reviews and identifies key factors and capabilities that enhance creativity within organizations (Andriopoulos, 2001; Crossan & Apaydin, 2010; Lam, 2005; Shalley, Zhou, & Oldham, 2004; Wang & Ahmed, 2004), many different models have been introduced in the literature that focus more specifically on the climate for creativity.

Ekvall (1983) offered one of the earliest models of the organizational climate for creativity. He responded to conceptual and empirical critiques offered by Guion (1973), James and Jones (1974) and Payne and Pugh (1976) by providing a bounded definition of creative climate. Ekvall identified creative climate as an intervening variable, specified and differentiated nine antecedent variables (leadership behavior, strategy, systems, structure, etc.) from key dependent variables (organizational and psychological processes, and individual and organizational performance).

Amabile (1988) also provided a comprehensive model of creativity and innovation in organizations by integrating her componential model of creativity at an individual level with qualities of environments that influence creativity. In addition to offering her own model, Amabile argued that a sound and complete model would stimulate, channel, and integrate existing information and be useful for the practice of nurturing creativity and innovation within organizations.

Table 4, below, provides summary information on twelve selected models for organizational creativity focusing on their levels of analysis, the number and kind of elements included, and how the constructs of work-environment, organizational culture or climate were positioned.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ekvall 1983</td>
<td>Climate, structure and innovativeness of organizations: A theoretical framework and experiment</td>
<td>Differentiated external environment (culture, political systems, legislation, markets) from the organizational model that included 9 individual and organizational antecedent variables affecting organizational climate as an intervening construct. These factors are presented as affecting organizational and psychological processes and ultimately individual and organizational performance.</td>
</tr>
<tr>
<td>Amabile 1988</td>
<td>A model of creativity and innovation in organizations</td>
<td>A descriptive model, anchored at the individual level, includes 13 elements based on a study of work environment. Describes 5 stages each for individual and small-group creativity and the organizational innovation process. Key organizational factors influencing the innovation process include motivation to innovate, resources in the task domain, and skills in innovation management. Includes no distinction of context, culture or climate, but work environment is the central construct.</td>
</tr>
<tr>
<td>Woodman, Sawyer, &amp; Griffin 1993</td>
<td>Toward a theory of organizational creativity</td>
<td>An interactionist multi-level model included 4 individual, 7 group, and 6 organizational characteristics. Distinctions made between antecedent, intervening, and dependent factors. Refers to contextual and situational influences rather than climate or culture and identified these as intervening.</td>
</tr>
<tr>
<td>Scott &amp; Bruce 1994</td>
<td>Determinants of innovative behavior: A path model of individual innovation in the workplace</td>
<td>A multi-level model anchored at the individual level of analysis in which 2 individual attributes combine with team-member exchange and 2 aspects of leadership behavior to affect 2 elements of psychological climate (resource supply and support for innovation) produce innovative behavior. Context was defined and assessed as individual psychological climate.</td>
</tr>
<tr>
<td>Ford 1996</td>
<td>A theory of individual creative action in multiple social domains</td>
<td>A multi-level model that specifies how individual creative action occurs starting with sense making to goals that influence receptivity and capability beliefs and emotions as motivational forces.</td>
</tr>
<tr>
<td>Study</td>
<td>Concept/Methodology</td>
<td>Description</td>
</tr>
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<tr>
<td>Oldham &amp; Cummings 1996</td>
<td>Employee creativity: Personal and contextual factors at work</td>
<td>Model presented to guide an empirical study that included both personal (creativity relevant) and 3 contextual (job complexity, supervisory style) factors to predict creative outcomes (ratings of creative performance, patent disclosures, contributions to suggestion systems). Although focused on a few contextual factors no definitions or distinctions of climate or culture provided.</td>
</tr>
<tr>
<td>Tesluk, Farr, &amp; Klein 1997</td>
<td>Influences of organizational culture and climate on individual creativity</td>
<td>Model presented at the individual level of analysis to illustrate the influence of both organizational culture and climate (as distinct variables) on individual creativity. Identified organizational culture as an antecedent to 4 structure and practices that then affect 5 elements of climate. Organizational climate is positioned as an intervening construct.</td>
</tr>
<tr>
<td>Drazin, Glynn, &amp; Kazanjian 1999</td>
<td>Multi-level theorizing about creativity in organizations: A sense-making perspective</td>
<td>Presented a multi-level (intra-subjective, inter-subjective, and collective) process-oriented dynamic model including 5 main stages. Asserted that engagement in the creative process differs among levels. Culture and climate mentioned once, but the main concept is context.</td>
</tr>
<tr>
<td>West 2002</td>
<td>Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups</td>
<td>Model focused on group creativity identified four groups of factors: 6 group task characteristics, 8 group processes, external demands, and integrating group processes. Asserts that external demands inhibit creativity at early stages, but facilitate innovation implementation at later stages. Focus is on work environment rather than climate or culture.</td>
</tr>
<tr>
<td>Martins &amp; Terblanche 2003</td>
<td>Building organizational culture that stimulates creativity and innovation</td>
<td>Model at the organizational level that identified 5 major determinants of organizational culture influencing creativity and innovation. Focus is only on organizational culture.</td>
</tr>
<tr>
<td>Schepers &amp; van den Berg 2007</td>
<td>Social factors of work environment creativity</td>
<td>Model anchored at the employee level of analysis and included 4 main determinants of organizational culture: adhocracy perceptions, employee participation, cooperative team perceptions, and procedural justice. Effects were determined on work-environment creativity and knowledge sharing.</td>
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<tr>
<td>-----------------------------</td>
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<tr>
<td>O’Shea &amp; Buckley 2007</td>
<td>Towards an integrative model of creativity and innovation in organizations</td>
<td>Present a dynamic, multi-level, interdisciplinary model including 3 individual factors, 6 team factors, and 2 task characteristics as well as 5 support factors, 6 organizational factors, and 5 external demands that influence organizational creativity and innovation. At the individual and team level the emphasis is on creativity. At the industry level the emphasis is on innovation. At the organizational level creativity and innovation are required. Climate and culture are not defined nor are distinctions made. The terms: team climate, organizational culture and context are included in the model.</td>
</tr>
</tbody>
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All twelve of these models provide support for the idea that organizational creativity depends on an interactive mix of individual (or personal) and organizational factors. But this seems to be the only level of agreement among them. All models differ on the kind, number, and definitions of either individual or organizational factors they include.

Even though all the models aim at explaining organizational creativity, there are major differences in how they define and differentiate the concepts of work environment or context, organizational culture and climate. Some models use all the concepts interchangeably, inconsistently, or choose to use entirely different concepts like "social domains" or “fields,” and “situation.” Few definitions and distinctions are drawn among or between them. Some place organizational climate as an antecedent to organizational creativity (i.e. Parker, Baltes, Young, Huff, Altmann, LaCost, & Roberts, 2003) – others treat it as an intervening variable and others as a dependent factor (i.e. Sarros, Cooper, & Santora, 2008).

The existing models also differ on their primary level of analysis. Some models are anchored at the individual level and include factors that have an influence only at this level. Other models focus on the group or team-level creativity. Others focus solely on the macro or organizational level.
**Need for a New Model**

Researchers and practitioners need a model for organizational creativity that includes factors that have been consistently shown to influence creative productivity. Amabile (1988) asserted that models for organizational creativity “...must incorporate all aspects of organizations that influence creativity” (p. 150). A new model should include those factors upon which there is emerging consensus both from previous models and empirical research. This integration must be conducted with consideration of both rigor and relevance. It must focus research efforts on salient variables that are amenable to direct testing and improvement efforts. Although many diverse factors have been identified that affect organizational creativity we still lack a coherent conceptual framework that can guide research and practice.

Those models anchored in practice or applied research may offer more practical implications and insights for those who lead and manage organizations. As Guidroz and Denison (2009) indicated, “...where science can help practice is by exploring the different contexts in which innovation is to thrive, thus guiding practitioners to the best methods for innovation management” (p. 357). This is not to assert that purely conceptual models have no value, but rather that they need to provide some foundation for guiding the management of innovation and creativity.

The model presented here has already shown some promise from a practical point of view. Isaksen (2013) conducted a content analysis on over 6,000 phrases derived from 334 participants from five organizations who completed the Situational Outlook Questionnaire (SOQ; Isaksen & Ekvall, 2007) as a part of the organization’s work on innovation. The narrative part of the SOQ asks three open-ended questions allowing participants to provide narrative comments in response to what is helping, hindering, or what actions they might take to improve creativity. Definitions provided by Isaksen, Lauer, Ekvall, and Britz (2001) and Isaksen and Tidd (2006) provided the categorical coding system for all the phrases.

The nine dimensions of the creative climate assessed by the SOQ accounted for 44.6% of the total narrative comments. These comments either directly related to a specific dimension or provided elaboration on the dimensions. The elements of the model for organizational creativity accounted for 48% of the narrative comments. One element that was not included in the model that featured prominently in the “other” category was physical space, and it was included in the revised description of the model presented here. Isaksen (2013) provided initial support for the model’s adequacy in covering the conceptual space of the creative work environment.

The literature on organizational climate and culture has surged showing a three-fold increase in articles published in top management journals from 2000 through 2008 (Kuenzi & Schminke, 2009). Most previous models of organizational creativity were developed prior to a resurgence of effort to synthetically integrate the growing body of organizational climate literature (see: Agars, Kaufman, Deane, & Smith, 2012; Dunne & Dougherty, 2012; Oldham & Baer, 2012; Schneider, Ehrhart, & Macey, 2011; West & Sacramento, 2012). These current efforts to take stock of the determinants of workplace creativity provide clear support for the conclusion that work context influences creative outcomes and productivity. Yet, none of these reviews within the domain of the creative work environment respond to Kuenzi and Schminke’s (2009) call to distinguish among antecedent, intervening, and dependent variables.
Given the confusion surrounding the use of the contextual constructs such as culture, climate, and work environment, and the emerging progress within the literature, a new model must set appropriate conceptual boundaries and make clear distinctions (Minor, 1980). The model’s scope should be set to identify key factors within the work environment that specifies antecedent factors from intervening and dependent factors. In this case, the climate for creativity should be the key intervening construct and dependent factors should reflect creative productivity within organizations.

Understanding the factors that influence organizational creativity is a complex endeavor. The intention of this chapter is to respond to the call from Hatch and Cunliffe (2006) and Tsoukas and Dooley (2011) to embrace complexity in organizational research and to offer a level of coherent complexity in improving our understanding of the organizational factors that can facilitate or inhibit creativity. Each element of the model is described and defined and each is supported by an extensive amount of empirical research.

Open-systems frameworks that offer clear identification of inputs (antecedent or independent variables), provide insight into how these intervene or interact, and spell out the effects or dependent variables, will allow definition and exploration of causal relationships that go well beyond descriptive frameworks (Schein, 1996; 2002). Open systems imply a dynamic process, so feedback and interaction are specified, as opposed to closed-systems or linear models (Godin, 2005; Pondy & Mitroff, 1979). This approach demands making clear distinctions among those factors that affect climate from those that climate affects, and from the climate construct itself.

For example, Hunter, Bedell, and Mumford (2005) reviewed 42 different taxonomies that outlined a variety of dimensions of a climate for creativity to identify the nature and number of these that should be included within the construct of creative climate. Through their coding and analysis they found support for 14 general dimensions. Even though they took a facet-specific approach to creative climate, they included resources, top management support, and mission clarity among these. Although these factors clearly influence climate, they are far more likely to be variables that affect climate rather than being included within the climate construct itself, further supporting the need for an improved conceptual model that draws clear distinctions.

The confusion extends to creative climate assessments. Some of these claim to measure the climate for creativity, but include dimensions like managerial encouragement, sufficiency of resources, and creative outcomes – clearly confusing antecedents of climate with climate itself, and with the dependent variables of creative and innovative outcomes. Models of organizational creativity must provide clear distinctions among antecedent, intervening, and dependent constructs.

Models that include and account for multiple levels of analysis and application may be more useful than those that only address a single level. Models that allow for consideration of micro (intra-individual), meso (group or teams), and macro (organization) levels of analysis may provide additional degrees of insight. However, models should clearly specify the level of analysis and application they aim to depict and how other levels may be approached (Chen, 1998).

The climate construct has been approached by different theoretical perspectives and on different levels, depending on the unit of analysis and the aggregation of individual perceptions utilized (Ekval, 1987; James, James, & Ashe, 1990). Two major ontological approaches to studying the organizational climate for creativity can be identified in the literature (Ekval, 1987; 1996).
The first is the phenomenological or subjective approach that treats organizational climate as a perceptual and cognitive structuring of the situation that is common to its members. This approach is based on the idea that individuals encounter organizational events, perceive, and interpret them in order to create meaning (James, et. al, 2007). An alternative theoretical approach is the realistic or objectivistic approach that defines climate as an attribute of the organization. Within this approach, climate exists independently of the organization members’ perceptions and apperceptions, and is treated as an objectively existing part of the organizational reality (Glick, 1985). The theoretical orientation to climate may affect the use of various composition models that specify the functional relationships among phenomena or constructs at different levels of analysis (Chen, 1998) and influence both the quantitative and qualitative understanding of the climate construct.

For example, psychological climate is the cognitive appraisal by an individual of environmental attributes in terms of their acquired meaning and personal values to the individual (James, et. al, 2007). When individual appraisals are aggregated, based on the belief that individuals in an organization have a sense of shared meaning or there is support for composing individual perceptions, the results are often referred to as either team (at the group level) or organizational climate (at the social system level). A related issue has been referred to as strength of climate – the less within-group variability, the stronger the climate (Schneider, Salvaggio, & Subirats, 2002).

Nearly all measures of climate, regardless of their ontological or epistemological approach, rest on individuals’ perceptions. However, there may be important differences in how items are constructed depending on how climate has been conceptually operationalized. Taking a phenomenological or subjective approach, items would be constructed based on an individual’s appraisal of the situation. An item may be worded: “I feel this workplace supports my creativity.” Taking a realistic/objective approach, items would treat the respondent as an observer of the climate that exists. An item may be worded: “People here often share their ideas with each other.” The framing of items of this latter type is referred to as referent shift (Chen, 1998). Of course, items are the basic building blocks for measures, and how they are worded reflects the concepts they are designed to assess and influences how they may be interpreted.

As an objective attribute of an organization, organizational climate has been identified as a productive construct to utilize in preliminary and sustained organizational diagnosis for development or improvement efforts (Ekvall, 1987; 1996; Isaksen & Ekvall, 2007). The model presented here treats climate as an objective or realistic theoretical construct.

We see organizational climate as an intervening variable that affects individual and organizational performance due to its modifying effect on organizational and psychological processes. The climate is influenced by many factors within the organization and, in turn, affects organizational and psychological processes. Organizational processes include group problem solving, decision-making, communication, and coordination. Psychological processes include learning, individual problem solving, creating, motivating and committing. These components exert a direct influence on the performance and outcomes in individuals, working groups and the organization. The model outlines a few of the more important organizational factors that affect climate, which in turn, impact the results and outcomes of the organization.
The Elements of the Model

The Model for Organizational Creativity (MOC) emphasizes those factors we believe are important to consider when introducing, managing or understanding creativity, innovation, and change within an organizational context. The elements in the MOC describe the key levers for creativity within organizations. Factors that influence the creative climate are considered antecedents. There are 13 antecedent (constructs that affect climate) elements including:

- The External Environment
- Leadership Behavior
- Organizational Culture
- Management Practices
- Systems, Policies, and Procedures
- Team Process Characteristics
- Individual Needs, Motives, and Styles
- Individual Skills and Abilities
- Team Structural Characteristics
- Task Requirements
- Resources and Technology
- Structure, Size, and Space
- Mission and Strategy

The central intervening construct is the climate for creativity that can be approached at an individual (psychological climate), team or group, or organizational level. Climate is operationalized through the nine dimensions assessed by the SOQ (and these are described in the following chapter).

These factors combine and interact to affect the outcomes, results, or dependent elements. These include organizational and psychological processes that effect individual and organizational performance and well being.

Information, ideas, and interaction are the content that flows through this larger system. Information is the data and knowledge that are shared and exchanged. Interactions are the relationships and interplay of behaviors between and among people. This includes patterns of communication and focuses on how the information is exchanged and transmitted, including the use of language to convey meaning (Pondy & Mitroff, 1979). The information, ideas, and interaction form the "what" and "how" people perceive and observe – the basis for their assessment of the patterns of behavior.
The External Environment

The organization exists in a context and is affected by its external environment and effects the external environment by producing both individual and organizational output or performance. This is consistent with the thinking of the general systems theory (Katz & Kahn, 1978), and the more recent findings of Burke and Litwin (1992) and Burke, Coruzzi & Church (1996).

The external environment is any condition or situation that is outside the organization itself but can exert an influence on the organization’s performance (the market, other organizations, global financial conditions, government, the larger political and social system, technological and scientific developments). Individual and organizational performance and well being include the actual outcomes or results. These results re-enter the external environment, as do some of the interactions within the system. They function as indicators of the achievements and efforts of the organization and the people within it. The MOC displays the organization as a system within this larger context. Both the external environment and the organization’s operations and performance have an impact on the climate within the organization.
Therefore it is unlikely that there will be 'one best way' to manage and organize change as organization-specific characteristics are likely to undermine the notion of a universal formula for success (Tidd, 1997; 2002).

For example, research on organizational innovation confirms that the type of organization and scope for innovation are critical differentiating factors (Damanpour, 1991), and the broader organizational context and industry dynamics are also influential (Drazin & Schoonhoven, 1996). Managers' assessments of the organizational environment affect the criteria used to assess and select projects, and the methods used to manage and resource them (Tidd & Bodley, 2002).

The effect of context on the organization and performance is sometimes called the 'contingency theory’. Central to contingency theory is the concept that no single organizational form is effective in all circumstances, and that instead there is an optimal organization type that best fits a given contingency, such as size, strategy, task uncertainty or technology (Donaldson, 1996). The better the fit between organization and contingency, the higher the organizational performance (Donaldson, 1999; Drazin & Van de Ven, 1985). This relationship between contingency, organization and performance has been supported by a substantial body of research conducted in the 1960’s and 1970’s, including qualitative comparative case studies (Burns & Stalker, 1961; Chandler, 1966), and quantitative analysis of large samples (Child, 1972; Lawrence & Lorsch, 1967).

Contingency theory has been criticized for being too prescriptive and deterministic, leaving little scope for other influences, such as managerial choice or institutional pressures. Child (1972) offers some accommodation of the competing theories by allowing some ‘strategic choice’ within boundaries set by contingencies. We adopt a similar position here, and will argue that contingencies do influence the organization and management of change, but that they constrain rather than fully determine ‘best practice’.

The Transformational Factors

The four factors at the "top" of the model are leadership behavior, organizational culture, mission and strategy, and structure and size. These have been referred to as the transformational variables for organizational change because any alteration within them is likely to be caused by an interaction with the external environment and will require new behaviors within the organization (Bass, 1985; Burns, 1978; Kouzes & Posner, 1987).

Leadership behavior. Leadership behavior includes any actions initiated by leaders aimed at the transformative aspects of the organization. Acts of leadership occur whenever problems are solved, decisions are made, or information exchanges result in actions. Leadership behavior is very visible to individuals in the organization, especially during times of change. Leaders may be senior managers, supervisors and others who hold formal positions of influence or those who demonstrate an informal influence on others. Leadership behavior has a major influence on the perceptions people have about the climate for creativity and change (Ekvall, 1997a; Ekvall & Arvonen, 1984; Ekvall, Arvonen, & Waldenström-Lindblad, 1983; Ekvall & Ryhammar, 1998).

Research over the past forty years has confirmed that contrary to the common caricature of the lone maverick innovator, 'top management commitment’ is one of the most common prescriptions associated with successful innovation (Tidd & Bessant, 2009).
The challenge is to translate the concept into reality by finding mechanisms that demonstrate and reinforce the sense of management involvement, commitment, enthusiasm and support. In particular, there needs to be long-term commitment to major projects, as opposed to seeking short-term returns.

Leadership can influence cognitive perceptions of the work environment. That is, the need for and susceptibility to change, and innovative behaviors, including the generation, testing and implementation of ideas. The critical condition for translation of the situational assessment into innovative behaviors is that a leader judges a need for change, and that the environment is susceptible to change (Krause, 2004). Clearly a feedback loop exists from the second to the first appraisal. With greater perceived situational control (authority to act, resources, time, etc.) a manager will increase their sensitivity and aspiration for innovation, and conversely if they perceive their control to be lower, their sensitivity in the primary appraisal will be reduced.

There is a recent and growing body of research, experience and practice that indicates that specific leadership styles and practices can have a significant positive effect on creativity and innovation. For example, a useful typology of creative leadership consists of three broad leadership styles: those that accept existing ways of doing things, those that challenge existing ways of doing things, and those that synthesize different ways of doing things (Sternberg, Kaugman, & Perez, 2003). This suggests that leadership styles can be positioned on some scale of leader pro-activeness, ranging from avoidance or laissez-faire at the bottom of the range, through transactional somewhere in the middle, to transformational at the top. Others identify a focus on personal values and standards, so-called ‘ideological’ leadership, and a focus on social needs and requirements for change, or ‘charismatic’ leadership (Strange & Mumford, 2002).

One of the most important roles that leaders play within organizational settings is to create the climate for innovation. In the next chapter we identify the critical dimensions of the climate for innovation. By using the Situational Outlook Questionnaire® as a diagnostic, we can identify nine dimensions to help decide what kind of interventions might be helpful in establishing the appropriate context for innovation.

**Organizational culture.** Organizational culture includes the values, beliefs, history and traditions that reflect the deeper foundations of the organization. Culture is the cement that holds an organization together. Over time, organizations develop a culture based on deeply entrenched norms and assumptions. These imbedded principles and ethics influence patterns of interaction as well as choices and decisions people make. The culture determines the worldview or mindset for those who belong (Hofstede, Neuijen, Ohayv, & Sanders, 1990). It influences the way people behave, particularly how they respond to surprise, ambiguity, creativity and change.

As we have seen, culture is complex, but it basically equates to the pattern of shared values, beliefs and agreed norms which shape behavior—in other words, it is ‘the way we do things round here’ in any organization. Schein (2010) suggested that culture can be understood in terms of three linked levels, with the deepest and most inaccessible being what each individual believes about the world—the ‘taken for granted’ assumptions.

These shape individual actions and the collective and socially negotiated version of these behaviors defines the dominant set of norms and values for the group. Finally, behavior in line with these norms creates a set of artifacts—structures, processes, symbols, etc.—that reinforce the pattern.
Given this model, it is clear that management cannot directly change culture—but it can intervene at the level of artifacts—by changing structures or processes—and by providing models and reinforcing preferred styles of behavior. Such ‘culture change’ actions are now widely tried in the context of change programs towards total quality management and other models of organization that require more participative culture.

However, the idea of a strong shared culture may be too simplistic, and instead we can identify five dimensions or orientations: autonomy, external, interdepartmental coordination, human resources and improvement (Van den Berg, & Wilderom, 2004). Autonomy refers to the degree of discretion employees have at the job or task level. External orientation is derived from an open systems approach, and refers to the relationship with the context. Interdepartmental coordination is included as horizontal differentiation and specialization that can create barriers to inter-group communication (e.g. the impact of “silos”). Human resource issues are an inherent component of organizational culture. The fifth dimension, improvement, reflects the organization’s level of ambition, degree of pro-activeness and emphasis on results.

**Mission and strategy.** Mission and strategy define what the business is going to do and subsequently how it will achieve its aim. Mission and strategy include the vision, purpose and the main strategic initiatives the organization will take to ensure its purpose and reach its vision. The strategy defines for them how this purpose will be achieved. Mission and strategy also influence patterns of behavior, attitudes and feelings of those who develop the direction as well as those who take initiative and have responsibility for implementation (Collins & Porras, 1997).

While we must be careful of vacuous expressions of ‘mission’ and ‘vision’, it is also clear that in cases like these there has been a clear sense of, and commitment to, shared organizational purpose arising from such leadership. Changing mind-set and refocusing organizational energies requires the articulation of a new vision, and there are many cases where this kind of leadership is credited with starting or turning around organizations. Examples include Jack Welch of GE, Steve Jobs (Pixar/Apple), Andy Groves (Intel) and Richard Branson (Virgin).

Leadership should formulate, define and restate overall values, vision and mission, strategic directions and organizational forms; it can empower and mobilize commitment to new directions, and can energize people to action. Bass considered charisma (later re-named ‘influence’), intellectual stimulation, inspired motivation and individual consideration to be significant components of the construct of transformational leadership (Bass, 1998). Charismatic leadership includes a sense of mission, articulating a future-oriented, inspirational vision based on powerful imagery, values and beliefs, and is highly predictive of organizational performance (Walderman, Javidan, & Varella, 2004). Innovation champions provide enthusiastic support for new ideas and relate the innovation to a variety of positive organizational outcomes by using their informal networks to promote the innovation throughout the organization (Howell & Boies, 2004).

**Structure, size, and space.** Structure refers to the way people and functions are arranged. It deals with levels of responsibility, decision-making authority, and formal reporting relationships with others in the organization. Structures are usually designed to assure that the mission and strategy of the organization are effectively implemented. Size has to do with the number of employees and the overall magnitude of the organization.

Space includes the physical arrangement of the offices and work environment. Structure, size and shape of the organization, and its working units, influence the use of power in making decisions and the scope of employee participation. These three variables create the
pathways for the flow of information and guide the assumptions people make regarding relationships and interactions.

Ekvall has shown that the type of structure within departments of an organization (i.e., hierarchical and bureaucratic versus flat and empowered) has an impact on employees’ perceptions of the climate in those departments (Ekvall, 1997b). Much of the early research examined the relationship between formalization, specialization and firm size, the Aston Group being the most influential work on this subject (Pugh & Hickson, 1976; Pugh, Hickson, Hinings & Turner, 1969). Galbraith (1994) argued that as task uncertainty increases, more information must be processed, which in turn influences the control and communication structures. Similarly, Lawrence and Lorsch (1967) proposed that the rate of environmental change affected the need differentiation and integration within an organization, and found support for this in their comparative study of organizational structures in three different sectors (Galbraith & Lawler, 1993). More recently, management researchers such as Mintzberg (1983) and Galbraith (1994) have developed these ideas into more prescriptive management frameworks, which attempt to match organizational structural templates to specific task environments.

The Transactional Factors

The remaining elements of the MOC are generally referred to as transactional variables in that they are aimed at preserving and implementing that which has been decided at the transformative level of the organization. Some might call these more tactical elements in that they focus more on the day-to-day interactions and behaviors within the organization.

**Resources and technology.** Resources and technology are the basic tools an organization has at its disposal to complete business. These include the people, capital, machines, equipment, materials, patents and copyrights that the organization has acquired for use in its operations. The level of knowledge available to the organization is also a key resource. Resources and technology can impact the feelings and attitudes of people in the organization by either facilitating or inhibiting appropriate behaviors. A lack of key resources can often frustrate and provide barriers to creative thinking and limit initiative.

The type of technology used has long been recognized as having a fundamental effect on organization and performance. However, assessing technology is relatively difficult, the most simple being the scale and flexibility of production processes. Having and effectively using resources and technology can be a stimulant for the climate for creativity and change (Woodward, 1965).

**Task requirements.** Task requirements are the mixture of skills, knowledge and capabilities needed by the organization to perform assignments effectively. The kinds of tasks to be accomplished, and their corresponding demands, influence the selection of who needs to work on what jobs. Certain tasks may require cross-functional work, others may require cooperation across divisions. The demands made by these tasks influence the behaviors required by the organization to accomplish its purpose, and in turn, affects the climate (Nonaka, 1991).

An examination of the research suggests that many contingencies exert a significant influence on organizational management of innovation, the most significant being the uncertainty and complexity of the tasks undertaken (Amabile, 1996). A review of 21 innovation research projects concludes ‘environmental uncertainty influences both the
magnitude and the nature of innovation... (which) suggests that future research should adopt environmentally sensitive theories of organizational innovation by explicitly controlling for the degree and the nature of environmental uncertainty’ (Damanpour, 1996). In particular, perceptions of environmental uncertainty appear to affect the organization and management of innovation (Hauptman & Hirji, 1999; Souder, Sherman & Davies-Cooper, 1998). Perrow (1970) developed a finer grain typology of task analyzability and variability.

Task complexity is a function of the number of technological components and interactions. Uncertainty is a function of the rate of change of technologies and product-markets, whereas complexity is a function of technological and organizational interdependencies. Uncertainty and complexity need to be differentiated, as they appear to have different requirements. Recent research suggests that innovation in complex systems is fundamentally different to that in other fields (Dvir, Lipovetsky, Shenhar, & Tishler, 1998; Hobday, Rush, & Tidd, 2000).

For example, a firm exposed to an environment of rapid technological change might require high levels of internal research and development and linkages with the science base, whereas a firm attempting to manage complexity is likely to be imbedded in a network of collaborating organizations (Tidd & Trewhella, 1997; Tidd, 1995). Complexity does not necessarily imply uncertainty, or vice versa (Tidd, 1997).

**Team structural characteristics.** So much work within organizations is done through groups and teams. Team structural characteristics relate to the harder, more measurable features of group dynamics. Some examples of team structural characteristics include: size of the group, the degree of explicitness surrounding procedures and processes, formal role definitions, aggregate level and kind of knowledge or expertise, cross-functional diversity, frequency of interaction, and the physical location of the team. These characteristics have an influence on team climate and creative productivity.

**Individual skills and abilities.** Individuals’ skills and abilities are the capabilities and knowledge held by people within the organization. The skills and abilities describe the level and kind of competence available to the organization. They determine how much talent is available within the organization to meet the requirements of the tasks. If a workplace is filled with highly qualified people, with more than sufficient talent to contribute to accomplishing the purpose of the organization, the climate will be positively affected (Torrance, 1987).

A core ability in any learning organization will be the continual discovery and sharing of new knowledge—in other words, a continuing and shared learning process. Mobilizing and managing knowledge becomes a primary task and many of the recipes offered for achieving this depend upon mobilizing a much higher level of participation in innovative problem solving and on building such routines into the fabric of organizational life.

But organizations do not learn, it is the people within them who do; routines are thus directed at creating the stage on which they act and the scripts with which they work. To achieve this, employees must understand how to learn; an increasing number of organizations have recognized that this is not an automatic process and have begun implementing training programs designed less to equip employees with skills than to engender the habit of learning. Training—not only in the narrow sense of ‘know-how’ but also a component of education around the strategic rationale for the change (the ‘know-why’) — can provide a powerful lubricant for oiling the wheels of such innovation programs.
In particular we are interested in the routines that the organization develops to enable the learning process, and more specifically, in the ways in which individual and shared learning can be mobilized. For example, the following mechanisms are all important (Garvin, 1993):

- Training and development of staff
- Development of a formal learning process based on a problem-solving cycle
- Monitoring and measurement
- Documentation
- Experiment
- Display
- Challenge existing practices
- Use of different perspectives
- Reflection—learning from the past

Crucially, what is learned and developed is not only new knowledge directly relevant to the organization, but also knowledge about how to manage the process itself. To make an analogy, human beings not only acquire new content of knowledge as they grow, but they also learn to learn; some develop more effective learning strategies than others, while for others it is a case of 'some people never learn'.

Over time, successful innovators review and build upon particular courses of action and internalize particular routines for managing the innovation challenge—for example, ways of getting close to users, ways of managing projects, ways of harnessing and sharing information, ways of exciting and supporting creative problem-solving.

Management practices. Management practices refer to the behaviors managers use to run the day-to-day business. Management practices are aimed at maintaining the stability and order of the organization by coordinating, communicating, controlling and planning the use of human, financial and material resources (or, for those familiar with Deming, organizing, planning, directing and controlling). Typical management practices include conducting performance and business reviews, encouraging and monitoring individual and team goal setting, planning projects and budgeting. How managers behave influences how others in the organization will behave and, therefore, influence the climate for creativity and change (Berryman-Fink & Fink, 1996; Schroder, 1994).

A key role of effective managers is to provide feedback and evaluation. This evaluative role is critical, but is typically seen as not being conducive to creativity and innovation, where the conventional (but wrong) advice is to suspend judgment to foster idea generation. Senior management inputs are most valued at the early stages of a new project, when problems are being defined and ideas formulated, and at the later stages when feedback and implications need to be identified.

Therefore managers must invest a great deal of time and effort in evaluation and feedback, as their core creative contribution, and should manage the timing and nature of this feedback to minimize the impact on motivation. This can lead to an ongoing cycle of innovation, as leaders and followers engage in a creative exchange.

Scott and Bruce (1994) found that the quality and nature of the leader-member exchange (LMX) influenced the creativity of subordinates. For example, a study of 238 knowledge workers from 26 project teams in high-technology firms identified a number of positive aspects of LMX, including monitoring, clarifying and consulting.

About a third of the respondents reported that the frequency of negative LMX were as high as the positive (Amabile, Schatzel, Moneta & Kramer, 2004). Therefore LMX can either enhance or undermine subordinates’ sense of competence and self-determination. However,
analysis of exchanges perceived to be negative and positive revealed that it was typically how something was done rather than what was done.

**Systems, policies and procedures.** Systems, policies and procedures are the mechanisms that facilitate work and provide structure for the organization. They include pay practices, rewards and recognition policies, management information systems (MIS), performance appraisal, budget and financial controls, and human-resource allocation procedures. Systems, policies and procedures provide the checks and balances that keep things on track and prevent costly errors. They may (some say – should) act as early warning systems and help establish repeatable processes, create stability and prevent anarchy. How they are implemented and what people think about them has an influence on the climate (Pasmore, 1988). They can also prescribe certain kinds of behavior.

Despite the claims of purveyors of highly standardized IT-based systems such as MRP (Material Resource Planning) and ERP (Enterprise Resource Planning), different contexts will demand different systems, policies and procedures.

For example, our research has identified at least five distinct system configurations necessary to support different goals, ranging from traditional service or manufacturing factories, through to project-based organizations and professional bureaucracies (Tidd & Hull, 2003). However, any system configuration needs to provide several common elements, including:

- Organizational mode of bringing people together
- Control mechanisms, either impersonal (standards, documentation, common software) or interpersonal (collocated teams)
- Shared knowledge and/or technical information base
- External linkages, e.g., customers and/or partners/suppliers

**Team process characteristics.** Team process characteristics relate to the softer, qualitative nature of group dynamics and characteristics. The degree to which members of a team share and demonstrate synergy around a common purpose, believing in the value of the team, their openness and willingness to share and exchange information, the team spirit or mood, as well as the degree of motivation to collaborate are examples of team process characteristics. Although they are relatively subjective and hard to assess directly, they have a meaningful impact on team climate and creative productivity.

**Individual needs, motives and styles.** Individual needs, motives and styles provide the basic drive and source of energy for the organization. They are psychological factors that provide a sense of worth or desire for people’s actions and thoughts. Needs for affection, belonging and recognition influence what people do. Their motives determine for what kinds of tasks they have energy and commitment. Their preferred style tells us about the way they might like to work, think, solve problems and manage change. Needs, motives and styles tell us how much energy people have for various kinds of work and will impact their behaviors, attitudes, and feelings (Kirton, 1994).

Individuals may have different vocabularies, different motives and represent organizations of widely differing cultures. Three approaches to improving communication are commonly used:

1. Mechanistic, which assumes that the process is essentially linear and rational, and that the sender and receiver of information share common perceptions and therefore the
receiver will attribute the same meaning to the message as intended by the sender. This is the basis of the common cascade approach to top-down communication.

2. Psychological, which considers how individual characteristics such as attitudes, cognitions and perceptions influence communication. Individual motivations, perceptions, likes and dislikes determine what information is reacted to and how it is processed. However, this approach has been criticized for ignoring or underplaying the influence the context has on communication.

3. Interpretive, which looks at how social context and meaning systems influence individual behavior. Social structures and meaning systems are locally constructed and communication is highly context-specific. Individuals are guided by experience and past behavior, and form cognitive maps which filter information and guide behavior. For example, sociological factors such as the relative power of different members of a social group, their existing intellectual and technical commitments and control of valued information can have a significant effect. Thus local ‘rigidly held perceptions’ and ‘pervasive sets of beliefs’ will influence the way in which information is interpreted and acted upon.

The Effects of Creative Climate

Organizational climate has a direct effect on a number of organizational and psychological processes. Of course, the transformational and transactional factors have an effect on the climate. This is why we identify climate as an intervening variable. As such the organizational and psychological processes influence the performance and well-being on the individuals and the organization itself.

Organizational and Psychological Processes. Organizational climate influences decision-making, communication, teamwork, problem solving, and numerous other effect variables. Climate affects how people work, individually and together.

Organizational Performance. The overall well being of the organization includes such factors as its ability to generate and implement change, produce new products and services, tap the creative talents of its people, and produce sustainable and profitable growth. The interaction of climate with the other variables identified in the MOC also influences the individuals within the organization. Climate has a strong relationship with the level of satisfaction with work, the degree of workplace stress employees feel, and the ability of people to offer suggestions and take initiative to improve the quality of work and a variety of other factors.

The MOC provides the conceptual framework to help us define climate and to see it as an intervening variable in influencing organizational creativity, innovation and change. The MOC outlines those organizational attributes that influence climate as well as those that climate influences and incorporates both the transactional and transformational factors.
The dimensions of the creative climate measured by the Situational Outlook Questionnaire® (SOQ) were derived originally from the work of Ekvall (1983). His dimensions were derived from a review of the creativity literature, and his applied experiences as an industrial psychologist (Ekvall, 1980). The translation of the Swedish Climate for Creativity Questionnaire (CCQ) into English was based on a ten-dimensional model of the climate for creativity and innovation. The first part of this chapter provides the first English translation made to Ekvall’s description of these dimensions. The second part of this chapter includes a description of the nine dimensions used in the current version of the SOQ.

This initial translation of the ten dimensions was shared with those who used the climate assessment through a series of handouts and applied support material.

The Original Ten Dimensions

Lauer (1994) provided an extensive review of the literature supporting the existence of the ten dimensions included in the CCQ. The original definitions for each of the dimensions are found below.

**Challenge/Motivation**

Challenge/Motivation was defined as the emotional involvement of the members of the organization in its operations and goals. A high-challenge climate is seen when the people are experiencing joy and meaningfulness in their job, and therefore, they invest much energy. Low challenge means feelings of alienation and indifference; the common sentiment and attitude is apathy and lack of interest for the job and the organization.

**Freedom**

The Freedom dimension was defined as the independence in behavior exerted by the people in the organization. In a climate with much of this kind of freedom people are making contacts to give and receive information and discuss problems and alternatives; they plan and take initiatives of different kinds and they make decisions. The opposite climate would include people who are passive, rule-fixed and anxious to stay inside the frames and established boundaries.

**Idea-Support**

Idea-Support was defined as the ways in which new ideas are treated. In the supportive climate ideas, and suggestions are received in an attentive and kind way by bosses and workmates. People listen to each other and encourage initiatives. Possibilities for trying out new ideas are created. The atmosphere is constructive and positive. When idea support is low, the reflexive "no" is prevailing. Every suggestion is immediately refuted by a counter-argument. Faultfinding and obstacle raising are the usual styles of responding to ideas.
**Dynamism/Liveliness**

This dimension was defined as the eventfulness of the life in the organization. In the highly dynamic situation, new things are happening all the time and alternations between ways of thinking about and handling issues often occur. There is a kind of psychological turbulence that is described by people in those organizations as "full speed," "go," "breakneck," "maelstrom," and the like. The opposite situation could be compared to a slow jog-trot with no surprises. There are no new projects; no different plans. Everything goes its usual way.

**Idea-Time**

Idea-Time is the amount of time people can use (and do use) for elaborating or developing new ideas. In the high Idea-Time situation, possibilities exist to discuss and test impulses and fresh suggestions that are not planned or included in the task assignment and people tend to use these possibilities. When idea-time is low, every minute is booked and specified. The time pressure makes thinking outside instructions and planned routines impossible.

**Playfulness/Humor**

This dimension was defined as the spontaneity and ease that is displayed. A relaxed atmosphere with jokes and laughter characterizes the organization that is high in this dimension. The opposite climate is characterized by gravity and seriousness. The atmosphere is stiff, gloomy and cumbrous. Jokes and laughter are regarded as improper.

**Debate**

The dimension of Debate was defined as the occurrence of encounters and clashes between viewpoints, ideas, and differing experiences and knowledge. In the debating organization many voices are heard and people are keen on putting forward their ideas. Where debates are missing, people follow authoritarian patterns without questioning.

**Conflict**

The Conflict dimension was defined as the presence of personal and emotional tensions (in contrast to idea tensions in the Debate dimension) in the organization. When the level of conflict is high groups and single individuals hate each other and the climate can be characterized by "warfare." Plots and traps are usual elements in the life of the organization. There is gossip and slander going on. In the opposite case, people behave in a more mature manner; they have psychological insight and control of impulses.

**Trust/Openness**

The dimension of Trust/Openness was defined as the emotional safety in relationships. When there is a strong level of trust, everyone in the organization dares to put forward ideas and opinions. Initiatives can be taken without fear of reprisals and ridicule in case of failure. The communication is open and straightforward. Where trust is missing, people are suspicious of each other and count on paying dearly for mistakes that may come. They also are afraid of being exploited and robbed of their good ideas.
**Risk-Taking**

The dimension of Risk-Taking was defined as the tolerance of uncertainty exposed in the organization. In the high Risk-Taking case, decisions and actions are prompt and rapid, arising opportunities are taken and concrete trying is preferred to detailed investigation and analysis. In a risk-avoiding climate there is a cautious, hesitant mentality. People try to be on the "safe side." They decide "to sleep on the matter." They set up committees and they cover themselves in many ways before making a decision.

**Debate and Conflict as Different Kinds of Tension**

There is a difference between Ekvall's concept of Conflict, and the more general use of the term. Many people feel that conflict is a good thing. When we dig a little deeper into the meaning they hold of conflict, it seems to be more aligned with the concept of debate. The CCQ portrays conflict as a barrier to creativity while debate is positioned as a positive attribute of the climate. In this respect, Ekvall conceptualizes conflict as the negative and debate as the positive components of a construct described as tension (Ekvall & Arvonen, 1984; Ekvall, Arvonen & Waldenstrom-Lindblad, 1983).

The concept of tension has often been explored in the social sciences as a climate variable that encompasses conflict and debate in interpersonal relations. Initial studies by Lewin et. al. (1939) and Fiedler (1962) found that leadership style had a substantial impact on the level of tension in a group's climate. Fiedler's study even suggested that lower interpersonal levels of tension between the leader and their constituents increased group creativity.

Although these studies suggest that high levels of tension in a climate are detrimental to group cohesiveness, cooperation, and creativity later studies have shown that some degree of tension, namely creative tension, is needed in groups for creativity to occur (Dierkes, 1985; Hill, 1975; McDonough & Leifer, 1986).

The concept of creative tension has been supported by creativity researchers (e.g., Gruber, 1989; Arieti, 1976) and is generally used to describe the balance that needs to occur between a creator's needs (e.g., freedom, time, stability, and security) and external constraints (coordination, time deadlines, disruption, and challenge) if creativity is to occur (Andrews, 1975; Dierkes, 1985; Peltz, 1976).

The Lewin et. al. (1939) and Fiedler (1962) studies examined elements of a climate of conflict. These elements developed from the lack of communication and distrust brought about by the experimental condition. On the other hand, Dierkes (1985), Hill (1975), Andrews (1975), and Peltz (1976) examined aspects of a climate of debate. In this type of climate tensions existed, but through communication and relationships of trust, the tensions remained productive and promoted the creativity of the groups.

Tension has also been associated with creativity on an intrapersonal basis and also makes a distinction between its positive and negative aspects although the word conflict is often used to express both. In support of Ekvall's distinction, Maddi (1965) indicated: "...if you want to reduce dissonance and conflict, you will tend to explain away troubling perceptions and emphasize already accepted solutions" (p. 336).
According to Torrance (1962), if our thinking could be changed to accept and utilize conflict then it is a positive factor of creativity because "Conflict provides the motivation for creative thinking, and the behavioral variability involved in reactions to stress, provides the possibility of discovering a uniquely useful solution" (p. 197).

Ekvall (1991) suggested the complexity of the conflict dimension in his research and stated:

The 'conflict' climate aspect is a tricky one in relation to creativity and innovation. Personal, emotional conflicts can be seen as blocking creativity whereas ideas-controversies ('debates') are stimulating, but in some highly creative organizations both types of tension are markedly present. Those organizations, however, seem to be creative in spite of the personal tensions, not because of them. (p. 76)

The distinction Ekvall perceives between debate and conflict is best portrayed in the CCQ items used to measure these dimensions. They are:

- **Debate:**
  - There are many new ideas floating around here.
  - People here are anxious to talk about their ideas.
  - Many different points of view are expressed here.
  - There is a great variety of views here.
  - Unusual ideas often come up in discussions.

- **Conflict:**
  - There is a good deal of tension here due to prestige conflicts.
  - It is common here to have people plot against each other.
  - There are power and territory struggles in my unit.
  - There are quite a few people who cannot tolerate one another.
  - There are quite a few personal conflicts here.

For the purposes of research and practical applications, we have chosen to maintain the distinction Ekvall proposes. When interpreting the research and helping people apply the SOQ, you will need to exert extra care to explain this distinction. There are clearly two faces of tension within the creative climate, one that facilitates and another that inhibits creative productivity (Isaksen & Ekvall, 2010).
The Nine Dimensions of the current version of the SOQ

The SOQ is composed of nine dimensions. You will find the specific rationale for why we made this change elsewhere within our technical resources (The Development of the SOQ). Below you will find descriptions, example items and statements individuals have used to describe the SOQ’s nine dimensions (derived from the narrative questions).

**Challenge/Involvement**

Challenge and Involvement refers to the degree to which people are involved in daily operations, long-term goals, and visions. High levels of challenge and involvement means that people are intrinsically motivated and committed to making contributions to the success of the organization. People find joy and meaningfulness in their work, and therefore, they invest much energy. In the opposite situation, people are not engaged and feelings of alienation and indifference are present. The common sentiment and attitude is apathy and lack of interest in that work and interaction is both dull and listless.

**Example SOQ Item:** Most people here strive to do a good job.

**Sample Narrative Statement:** Decisions are being pushed down to the team level, empowering each of us to come up with creative solutions.

**Freedom**

Freedom is defined as the independence in behavior exerted by the people in the organization. In a climate with much freedom, people are given autonomy to define much of their own work. People are able to exercise discretion in their day-to-day activities. People take the initiative to acquire and share information, and make plans and decisions about their work. In the opposite climate people work within strict guidelines and roles. People carry out their work in prescribed ways with little room to redefine their tasks.

**Example SOQ Item:** People here make choices about their own work.

**Sample Narrative Statement:** The trust and respect my boss holds for me translates into the freedom to do my job to the best of my ability in the style I determine most appropriate for the task.

**Trust/Openness**

Trust and Openness refers to the emotional safety in relationships. When there is a high degree of trust, individuals can be genuinely open and frank with one another. People have a sincere respect for one another and can count on each other for personal support. Where trust is missing, people are suspicious of each other, and therefore, they closely guard themselves and their ideas. People also find it extremely difficult to openly communicate with each other.

**Example SOQ Item:** People here do not steal each others’ ideas.
Sample Narrative Statement: The ability to use others in the group as sounding boards without worrying if they will steal the idea or inappropriately share it with others.

Idea-Time

The Idea-Time dimension is defined as the amount of time people can use (and do use) for elaborating new ideas. In the high Idea-Time situation, possibilities exist to discuss and test impulses and fresh suggestions that are not planned or included in the task assignment. There are opportunities to take the time to explore and develop new ideas. Flexible timelines permit people to explore new avenues and alternatives. In the reverse case, every minute is booked and specified. The time pressure makes thinking outside the instructions and planned routines impossible.

Example SOQ Item: One has the opportunity to stop work here in order to test new ideas.

Sample Narrative Statement: Adequate time for idea development and implementation is most helpful as it reduces the stress level caused by “being behind schedule” or trying to meet unrealistic deadlines.

Playfulness/Humor

Playfulness and Humor refers to the level of spontaneity and ease displayed within the workplace. A relaxed atmosphere where good-natured jokes and laughter occur often is indicative of this dimension. People can be seen having fun at work. The atmosphere is seen as easy-going and light-hearted. The opposite climate is characterized by gravity and seriousness. The atmosphere is stiff, gloomy and cumbrous. Jokes and laughter are regarded as improper and intolerable.

Example SOQ Item: People here exhibit a sense of humor.

Sample Narrative Statement: Most helpful in supporting creativity is the environment where objectives are defined yet a path not clear, which involves a team of “worker bees” brainstorming ideas; where laughter is encouraged & traditional ways of doing business are temporarily set aside.

Conflict

Conflict is defined as the presence of personal and emotional tensions in the organization. When the level of conflict is high, groups and individuals dislike and may even hate each other. The climate can be characterized by "interpersonal warfare." Plots, traps, power and territory struggles are usual elements in the life of the organization. Personal differences yield gossip and slander. In the opposite case, people behave in a more mature manner; they have psychological insight and control of impulses. People accept and deal effectively with diversity.

Example SOQ Item: There is a great deal of personal tension here.

Sample Narrative Statement: People look for your hidden motive. As soon as you do something people second-guess you or claim it wasn't your responsibility.
Idea-Support

Idea-Support refers to the ways new ideas are treated. In the supportive climate, ideas and suggestions are received in an attentive and professional way by bosses, peers, and subordinates. People listen to each other and encourage initiatives. Possibilities for trying out new ideas are created. The atmosphere is constructive and positive when considering new ideas. When Idea-Support is low, the automatic "no" is prevailing. Every suggestion is immediately refuted by a destructive counter-argument. Faultfinding and obstacle raising are the usual styles of responding to ideas.

Example SOQ Item: People here receive support and encouragement when presenting new ideas.

Sample Narrative Statement: We have a lot of really smart individuals who are allowed to work in a college type of atmosphere, where information (technical) sharing is encouraged.

Debate

Debate is the occurrence of encounters and disagreements between viewpoints, ideas, and differing experiences and knowledge. In the debating organization many voices are heard and people are keen on putting forward their ideas for consideration and review. People can often be seen discussing opposing opinions and sharing a diversity of perspectives. Where debates are missing, people follow authoritarian patterns without question.

Example SOQ Item: Many different points of view are shared here during discussion.

Sample Narrative Statement: Co-workers genuinely interested in giving constructive feedback on novel ideas; sense of shared purpose where advancing business is the prime concern, not "who gets credit".

Risk-Taking

The Risk-Taking dimension is defined as the tolerance of uncertainty and ambiguity exposed in the workplace. In the high Risk-Taking case, bold new initiatives can be taken even when the outcomes are unknown. People feel as though they can "take a gamble" on some of their ideas. People will often "go out on a limb" and will put an idea forward. In a risk-avoiding climate there is a cautious, hesitant mentality. People try to be on the "safe side." They decide "to sleep on the matter." They set up committees and they cover themselves in many ways before making a decision.

Example SOQ Item: People here feel as though they can take bold action even if the outcome is unclear.

Sample Narrative Statement: Given the opportunity to succeed and to apply/try new ideas. Generally supported to try new ideas.
REFERENCES


