

Adopt a Measure: The SOQ

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### **General Information**

The Situational Outlook Questionnaire (SOQ) is multi-method measurement instrument used to assess work climate and inform solutions to increase creativity and innovation in organizations, teams and individually. The SOQ has a greater than 50 year development history and emerged in its original form in 1995 in the United States, as a reincarnation, elaboration and English translation of the Creative Climate Questionnaire (CCQ), a measurement tool developed in Sweden by native industrial psychologist, Dr. Goran Ekvall. The SOQ is based on the early research of Ekvall and his later research collaboration with Dr. Scott Isaksen from the US, who surmised that climate is an organizational reality, rather than individuated. “Organizational climate does not refer to climate of an individual, work group, occupation, department or job; it is a psychological construct that is shared by members of organizations” (Iqbal, 2009, p.290). Ekvall and Isaksen propose that organizational climate can be measured and then tweaked along several dimensions to enhance creativity, change and innovation in an organization. The SOQ measure can be taken in an individualized format or in a team format depending on the data desired. Fifty-three Likert-Type quantitative questions are organized along the following briefly described 9 dimensions pertaining to work environment as it relates to creativity:

- 1) Challenge/Involvement: the connection, enthusiasm and engagement people have for their work and each other.
- 2) Freedom: the control employees have over approaches to tasks and work processes.
- 3) Trust/Openness: the emotional safety felt in the workplace.
- 4) Idea-Time: the time allotted to develop ideas and to rethink approaches.
- 5) Playfulness/Humor: the general mood and lightness of the work atmosphere.
- 6) Idea Support: the welcomed support and reception of new ideas.

- 7) Debate: the encouragement of sharing varied ideas approaches to the degree of “idea tension “ (Isaksen, 2007).
- 8) Risk-Taking: the support for ambiguity and an interest to try out new things out.
- 9) Conflict: the level of personal and/or group tension. This dimension is negatively correlated to creative climate.

These dimensions have evolved in number and name over time and across and between the different versions of the CCQ and subsequent SOQs. In the most recent version (VII) of the SOQ, the number of quantitative questions for each of the 9 dimensions falls within 5 and 7 and total 53. Each question is scored on a 4-point scale (0 = not at all applicable; to 3= applicable to a high degree). Scores from each of the nine climate dimensions are calculated and then converted to an overall scaled score between 0-300 and then awarded one of the three following classifications: innovative organizations, average organizations and stagnated organizations. In part II of the measure, three short answer questions provide opportunity for further insight and suggestions around work environment factors and inquire about what can be done to support and improve creativity in the workplace. The scaled climate results are provided to the client by a consultant in a data report along three possible strands: Leadership development, Organizational improvement and Team effectiveness. Information is presented with symbolic support using a color coded, plotted, concentric circle diagram. A variety of plots and visualizations of data can be customized to the needs of the client/s for the purpose of presentation and strategic planning. The measure is intended to be used to support and initiate change to organizations and to improve the climate for innovation and creativity.

The SOQ is published by the Creative Problem Solving Group, who are also conveniently, the providers the training for test administrators. Through a rigorous 2-part program, the trainers are prepared to consult with the organizations in planning next steps to improve climate. Test administrators complete the first portion of learning in an online format. They are expected to maintain an 80% on the comprehensive exam in order to continue on to the second part of the training. Part two of the training focuses specifically on the administration of the measure and can be completed online or under the guidance of a qualified trainer. Trainers are awarded with a Qualified SOQ Practitioner Certificate and are well prepared to consult with organizations to plan next steps to improve climate based on the results of the measure. Their qualifications must be renewed every 3 years. A great amount of resource material is available online, nothing is published about the cost of training or financial benefits that can come from this type of work.

### **Reliability**

The reliability of a measure refers to the instruments overall measurement consistency. The long development history and popular use of the CCQ and then SOQ speak to the perception of the reliability of the measure. “The SOQ has been shown to have adequate levels of reliability and stability over time” (Isaksen & Akkermans, 2011, p.170). However, one cannot assume reliability on reputation alone. Looking for quantitative documentation, Cronbach's alpha correlations are the most commonly used measurement of internal consistency. Alpha coefficients that meet or exceed the standard .70 are considered to be reliable (for an established measure). Below, Table 1 and Table 2 show the Cronbach’s alpha for each dimension on the SOQ for two different versions of the measure.

*Table 1*

**SOQ V 7 Internal Reliability  
(n = 3491)**

<b>Dimension</b>	<b>Cronbach's Alpha</b>
<b>Challenge/Involvement</b>	<b>.88</b>
<b>Freedom</b>	<b>.84</b>
<b>Trust/Openness</b>	<b>.79</b>
<b>Idea-Time</b>	<b>.87</b>
<b>Playfulness/Humor</b>	<b>.88</b>
<b>Conflict</b>	<b>.86</b>
<b>Idea-Support</b>	<b>.90</b>
<b>Debate</b>	<b>.88</b>
<b>Risk-Taking</b>	<b>.81</b>

Note. Adapted from Isaksen & Ekvall, (2013, p. 8)

Table 1 shows the Cronbach alpha for the most recent (version 7) of the SOQ. When one compares the data to Table 2 it is evident that there has been an improvement in alpha coefficients from one version to another.

*Table 2*

MEANS, STANDARD DEVIATIONS, AND CRONBACH ALPHA (N = 1,111) FOR  
DIMENSIONS OF THE SITUATIONAL OUTLOOK QUESTIONNAIRE

Dimension	Items	M	SD	Range		$\alpha$
				Minimum	Maximum	
Challenge/Involvement	7	204.6	54.2	29	300	.84
Freedom	7	152.2	60.2	0	300	.84
Trust/Openness	3	139.2	74.1	0	300	.64
Idea Time	6	105.9	63.9	0	300	.88
Playfulness/Humor	6	158.2	65.9	0	300	.89
Conflict	6	108.8	70.9	0	300	.86
Idea Support	5	158.8	67.1	0	300	.90
Debate	6	180.7	58.5	0	300	.88
Risk-taking	4	117.8	55.4	0	275	.62

Note. Adapted from Isaksen, (2007 p. 461)

In Table 2 Risk-taking .62 and Trust/Openness .64, which appeared at below the .70 reliability threshold for established measures called for attention and in subsequent revisions to the measure, a concerted effort to raise the level of reliability of these dimensions was made as seen on Table 1. Regardless of the differences in the data among tables, it is evident that the internal reliability of the dimensions is coming up in almost all cases at a significant level. In Table 1, the most recent version of the SOQ, all dimensions fall into the appropriate range (.70). It is worth noting that Idea support comes in as the most reliable on both tables at .90. It is also noteworthy that the dimensions on the second table that came up lowest were the two that had the least number of items on the measure to generate the data, which could be argued had an impact on the data and reliability of these dimensions. In earlier versions of the measure, there were an equal numbers of items to support each dimension, one wonders if there might be a return to this in subsequent incarnations of the measure.

### **Test-Retest Reliability**

Another way to establish reliability of a measure is to look for evidence of its ability to produce the same data when measuring the same scenario over time. Although the concept of climate under Ekvall's definition is not a fixed notion and is rooted in the self reported subjective interpretation of one's experience, reliability of the measure has been found using test-retest. "A longitudinal study of product development project in a high-tech company was conducted across a three-year period with the climate being measured every three months. The results showed that the dimensions possessed good reliability using aggregated scores" (Ekvall & Isaksen, 2013, p. 12).

### **Alternative Forms**

Reliability between alternative forms should also be considered and can be found for the SOQ when one considers the computer version an alternative form to the pencil version. Careful consideration for variance between written and computer forms have been explored with the finding that “Substantial correlations were found between the paper and web-based version of the SOQ. Analysis of Variance on these results showed no significant differences between results from either form of the measure” (Ekvall & Isaksen, 2013, p.13). It is therefore generally accepted that the SOQ in its seventh version, is a reliable measure both internally, and externally.

## **VALIDITY**

Psychological instruments must provide evidence of their validity and the nature of a measure’s validity is developed and earned over a long period of time. Determining construct validity is a process that incorporates a range of approaches and procedures to ascertain if a measure is assessing what it claims to. To cover the validity of the SOQ we will consider it from the content, convergent, divergent and criterion validity perspectives. These can be understood through a series of established checks and tests. One of the best places to start is by looking at the face and content validity of a measure. Once again the longevity of the measure works to develop a solid reputation for the SOQ.

### **Face Validity**

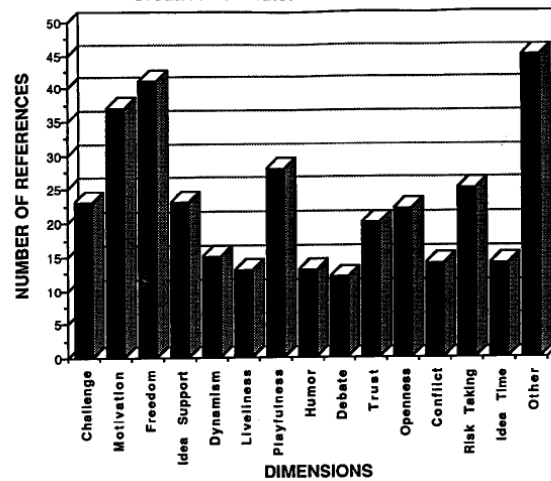
Face validity refers to the subjective impression a user has regarding the relevance of the measure. It considers if the people who use the measure, believe it to be accurate in what it claims to do based on their impression of the appearance or “face value” of the tool. The face validity of the SOQ appears convincing. It is a measure with a long-standing history. It has

stood the test of time and it continues to be used by both individuals and groups to better understand climate. It has been developed in several languages and has been used, meticulously reviewed and developed by leading experts (Cabra, 1996; Lauer, 1994; Isaksen & Akkermans, 2011; Ekvall & Isaksen 2013) in the creativity field. To the layperson, it is easily understood and appears to ask questions that relate to climate. Furthermore, as Isaksen and Lauer report (2001) “The English translation (SOQ) was then reviewed for face validity using a Q-sort by the initial translation team, and six creativity researchers, one from India, two from Norway, and three from the USA” (p. 34).

### **Content validity**

Content validity requires deep exploration of the tool. Here we must ask “is the design of the SOQ representative of the domain it covers?” In order to determine content validity one must justify the dimensions the tool measures. Ekvall developed an original list of ten dimensions to capture organizational climate based on ground observations he made while working in Sweden at Volvo. He further supported the dimensions with literature reviews and continued to evolve, tweak and redefine them over time in collaboration with others. The dimensions of the measure have changed over different versions and the total number shifted from ten to nine when the CCQ was translated into English and introduced as the SOQ. Kenneth Lauer (1994) from Buffalo State College explored the content validity of the CCQ’s ten dimensions in his master’s thesis. In his dissertation he completed a literature review identifying Ekvall’s ten CCQ dimensions in publications. Figure 1 visualizes the frequency in which the dimensions were addressed in readings on the subject of creativity and climate.



*Figure 1***Table 2.8. Bar Chart of References to Ekvall's Dimensions of Creative Climate.**

Note. Adapted from Lauer, (1994, p.263)

Looking at Figure 1 it is apparent that all of the dimensions have been identified in at least ten publications. Lauer's research justifies the dimensions that Ekvall had determined as relevant to the measuring climate. One can see on the chart that a large number of experts discussed Challenge, Freedom, Playfulness and Risk taking. In figure 2, Lauer published the names of the experts and authors whose literature he reviewed and which dimensions each had made mention of in their writing. Notably, developers of other established climate tools such as Teresa Amabile are included on this chart.

Figure 2

TABLE 2.7. Summary of Literature References to Ekvall's Dimensions of Creative Climate

AUTHOR(S)	DATE	DIMENSION														
		CH	MO	FR	IS	DY	LI	PL	HU	DE	TR	OP	CO	RT	IT	OT
Abbey, A. & Dickson, J. W.	1963		X	X	X									X		X
Abbott, P.A.	1966	X	X	X										X		X
Amabile, T.M.	1983b	X	X	X	X	X	X	X						X	X	X
Amabile, T.M.	1988	X	X	X	X	X	X	X		X				X	X	X
Amabile, T.M. & Associates	1990	X	X	X				X						X		X
Amabile, T.M. & Gryskiewicz, N.	1989	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Aries, S.	1976		X	X	X	X	X	X	X	X	X	X		X		X
Christie, J.F.	1960							X	X							X
Christie, T.	1970		X	X				X	X				X			X
Critchfield, R.E.	1962	X	X	X	X	X	X			X	X	X	X	X		X
Csikszentmihalyi, M.	1980		X	X												X
Daranyi, J.L. & Silverman, I.W.	1975							X								X
Dentler, R.A. & Mackler, B.	1964															X
Dimock, M.	1966		X	X						X		X	X			X
Fetisov, D. & Ross, G.S.	1973							X								X
Feldman, J.F. & Hobson, S.K.	1972			X				X	X			X	X	X	X	X
Gibb, J.R.	1972	X	X	X				X			X	X	X	X	X	X
Glover, J.A.	1977													X		X
Goyal, R.P.	1973			X	X						X					X
Gruber, H.E.	1968a	X	X	X		X		X				X	X	X	X	X
Guilford, J.P.	1960	X	X	X									X	X	X	X
Guilford, J.P.	1975	X	X	X							X	X	X	X	X	X
Hall, J.	1960	X	X	X	X	X		X	X		X	X	X	X	X	X
Harrington, D.M.	1960	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hinton, B.	1968															X
Hofler, E.	1967		X					X						X		X
Irwin, D.W. & Rula, E.G.	1968		X	X	X											X
Kanter, R.M.	1966	X	X	X	X	X	X		X		X					X
Lehman, H.C.	1963	X	X	X	X	X	X									X
Lieberman, J.N.	1965		X	X				X	X							X
Lieberman, J.N.	1967		X	X				X	X							X
Maslow, A.H.	1971		X	X	X	X	X	X	X		X	X	X	X	X	X
Mumford, M.D. & Gustafson, S.B.	1968	X	X	X	X	X	X	X	X		X	X	X	X	X	X
Osborn, A.F.	1963	X	X	X	X	X	X	X	X		X	X	X	X	X	X
Osby, V.R.	1979		X	X	X	X	X	X	X		X	X	X	X	X	X
Roe, A.	1958		X	X	X	X	X	X	X		X	X	X	X	X	X
Rogers, C.R.	1964		X	X	X	X	X	X	X		X	X	X	X	X	X
Rogers, C.R.	1961	X	X	X		X	X	X	X		X	X	X			X
Steen, M.I.	1963		X	X												X
Steen, M.I.	1974	X	X	X	X			X	X				X	X	X	X
Steen, M.I.	1975		X	X	X				X	X	X	X	X	X	X	X
Stein, M.I.	1965	X	X	X				X								X
Taylor, I.A.	1976	X	X	X	X			X	X	X	X	X	X	X	X	X
Taylor, I.A.	1976		X	X				X	X							X
Torrance, E.F.	1962a	X		X	X											X
Torrance, E.F.	1979		X	X	X	X	X	X	X	X	X	X	X	X	X	X
VanGundy, A.C.	1964	X	X	X	X			X	X			X	X	X	X	X
Weissenberg, P.	1966		X	X												X
Winlow, E.K.	1960	X	X	X						X				X		X
Ziv, A.	1976							X								X
TOTAL		29	37	41	23	15	13	28	13	12	20	22	14	25	14	65

KEY		
CH = Challenge	MO = Motivation	FR = Freedom
IS = Idea Support	DY = Dynamism	LI = Liveliness
PL = Playfulness	HU = Humor	DE = Debate
TR = Trust	OP = Openness	CO = Conflict
RT = Risk Taking	IT = Idea Time	OT = Other

Note. Adapted from Lauer, 1994, p.261

### Factorial Validity

With Factor analysis we move to understanding the construct validity of the SOQ.

Here one considers the individual factors that make up each dimension of the measure and how they are perceived in relation to their assigned dimensions.

Table 3

Principal Component (Promax Rotation) Analysis  
SOQ version 7 items (n = 3491)

Theoretic items	Component								
	1	2	3	4	5	6	7	8	9
Challenge/Involvement	.936								
Challenge/Involvement	.934								
Challenge/Involvement	.799								
Challenge/Involvement	.766								
Challenge/Involvement	.700								
Challenge/Involvement	.665								
Challenge/Involvement	.253						.451		
Conflict		-.844							
Conflict		-.802							
Conflict		-.791							
Conflict		-.773							
Conflict		-.758							
Conflict		-.681							
Playful/Innocent/Hi-memo F			.903						
Playful/Innocent/Hi-memo F			.899						
Playful/Innocent/Hi-memo F			.847						
Playful/Innocent/Hi-memo F			.755						
Playful/Innocent/Hi-memo F			.651						
Playful/Innocent/Hi-memo F			.536						
Learn-Team				.956					
Learn-Team				.904					
Learn-Team				.850					
Learn-Team				.846					
Learn-Team				.374					
Learn-Team				.306			.453		
Duchess					.849				
Duchess					.816				
Duchess					.725				
Duchess					.644				
Duchess					.627		.276		
Duchess					.349		.553		
Freedom						.815			
Freedom						.813			
Freedom						.737			
Freedom						.721			
Freedom						.672		.324	
Freedom						.562			
Learn-Support							1.069		
Learn-Support							.994		
Learn-Support							.792		
Learn-Support							.754		
Learn-Support							.626	.260	
Risk-Talking								.793	
Risk-Talking								.736	
Risk-Talking								.714	
Risk-Talking							.267	.492	
Risk-Talking								.479	
Trust/Dependence	.396								.292
Trust/Dependence									.295
Trust/Dependence									.267
Trust/Dependence									.359
Trust/Dependence							.287		.334
Eigen Values	18.025	3.830	2.107	2.005	1.837	1.534	1.293	1.100	.931
% Variance Accounted For by Factors	34.663	7.365	4.052	3.855	3.532	2.950	2.486	2.116	1.791

Note. Adapted from Isaksen & Ekvall, 2013, p. 24

This ensures the components of each dimension clearly work to measure the intended aspect of climate. When referring to the data we are looking to the correlation coefficients to inform validity. Table 3 shows a factor analysis from version V11 of the SOQ, and we see most components of each dimensions loaded in the correct place. Looking closely, we can see that item 7 in Challenge / Involvement has loaded in two places. It correlates more with the Freedom dimension at .451 than the Challenge / Involvement at .253. Upon close inspection Table 3 shows that there are 9 factors that are double loading. This draws attention to them for future consideration and potential rework. As an aside, one can

surmise from the data that there is a negative correlation for Conflict as consistent negative correlations have occurred for all factors. Also worth mention is that conflict has the highest variance. The numbers suggest the SOQ has construct validity however, with 9 factors double loading, one could argue that the factors warrant further investigation.

### Convergent Validity

Another form of validity to consider is the degree to which what the SOQ measures is theoretically related to other measures that claim to measure the same or similar things.

“The SOQ has evidence regarding its relationship to other variables and measures.

The dimensions of the SOQ correlate significantly and in expected directions with the Survey of Creative and Innovative Performance, an earlier versions of KEYS and to predict higher perceived levels of support for organizational creativity and innovation” (Isaksen & Akkerman, 2011, p.170). Table 4 shows mean paired differences between five work environment instruments used at both individual and group levels. The SOQ correlates significantly with JDS (Job Diagnostic Survey) for both group and Individuals with KEYS at 3.33 at the group level and with the Organizational Climate Measure (OCM) at 2.93 at the group level.

Table 4

WEI		Mean paired differences between five work environment instruments at individual and group levels							
		Work environment instrument							
		SOQ		OCM		QPSNoetic		JDS	
		I	G	I	G	I	G	I	G
KEYS	I	3.63		3.73**		3.67**		15.80***	
	G		3.33***		0.40		2.90***		7.70***
SOQ	I			0.10		0.03		12.17***	
	G				2.93***		0.43		4.37***
OCM	I					0.07		12.07***	
	G						2.50**		7.30***
QPSNoetic	I							12.13***	
	G								4.80***

\*\*\* $p < .001$ , \*\* $p < .05$ .

Note. Adapted from Lone et al., 2014, p. 477

The data suggests that the dimensions of the SOQ correlate with dimensions of other climate measures in a statistically significant way.

### **Criterion validity**

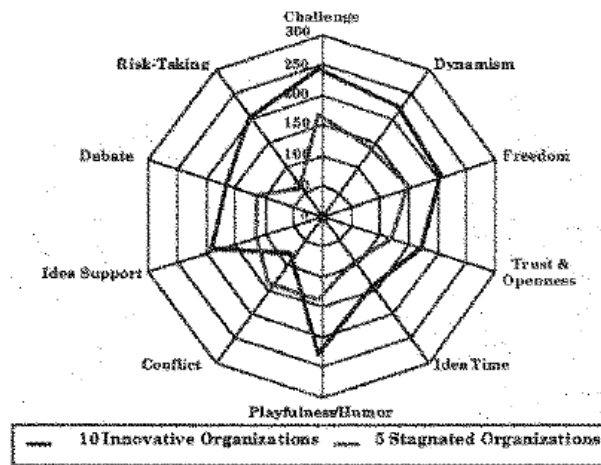
Criterion validity looks to find out to what extent the measure is demonstrably related to concrete criteria in the "real" world. One would assume that a measure that claims to paint a picture of work climate so that one can improve the climate would be able to discriminate the productive and healthy ones from stagnated ones. In a study conducted by Isaksen et al., (2001), such evidence was sought and found. The authors reported on the results of 2 studies conducted to examine the ability of the SOQ to discriminate between innovative and stagnated organizations. "The two studies presented here have provided preliminary evidence that the SOQ does discriminate the climate for creativity and change" (p.182). This publication also shared evidence from Ekvall's earlier research where he and his team sorted companies into the three categories: innovative, average and stagnated. It was found that "organizations that were designated innovative have climate scores that are significantly different from organizations identified as stagnated. Analysis of variance showed that the mean differences were significant at the .05 level or better on all 10 climate dimensions" (p.177). In Figure 3, the upper table reports that averages from this study and shows that the most innovative teams have significantly higher averages than those from the least creative teams. The lower spider chart is included on which one can see a visual scale difference between these organizations along the reported dimensions.

Figure 3

Table 2. Ekvall's CCQ Normative Information—Numeric Data

Dimension	Innovative Organizations <sup>a</sup>			Stagnated Organizations <sup>b</sup>		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
Challenge and Involvement	238	27	219–309	163	10	154–176
Dynamism	220	33	182–290	140	22	120–166
Freedom	210	16	185–240	153	32	114–192
Trust/Openness	178	36	90–212	128	29	89–168
Idea Time	148	13	124–168	97	26	70–130
Playfulness/Humor	230	31	148–260	140	21	105–158
Conflict	78	31	36–150	140	14	126–162
Idea Support	183	14	166–200	108	23	80–132
Debate	158	31	110–204	105	6	98–112
Risk-Taking	195	27	153–240	53	15	34–70

<sup>a</sup>*n* = 10. <sup>b</sup>*n* = 5.



Note. Adapted from Isaksen et al., 2001, p. 176

It is worth noting that there is an obvious inverse effect or a negative correlation regarding conflict between innovative environments and stagnated ones. We will revisit this observation when looking to the measures discriminant validity.

### Discriminant Validity

With discriminant validity, we look for the measures ability to differentiate between concepts that are dissimilar. This can be understood in several ways. On a macro level, discriminant validity is observed when we consider that the design of the SOQ has been developed to

Table 4

Table 2. Debate and Conflict Scores Across Studies\*

Description of study	Average Debate scores	Average Conflict scores
Ekvall (1991) Study of Innovative and Stagnated Organizations		
10 Innovative organizations (N = 630)	158	78
5 Stagnated organizations (N = 275)	105	140
Isaksen & Lauer (2001) Perceived Support for Innovation		
Not supportive (N = 201)	128	178
Supportive to some extent (N = 609)	167	136
Fairly supportive (N = 702)	201	108
Highly supportive (N = 318)	233	77
Aerts (2008) Study of Best and Worst-Case Climates		
Best case (N = 213)	214	59
Worst case (N = 213)	88	156
Isaksen & Lauer (2002) Study on Most and Least Creative Teams		
Most creative (N = 154)	231	27
Least creative (N = 154)	83	123
Akkermans (2008) Study of Leadership Support for Innovation		
Not at all effective (N = 12)	178	174
Effective to some extent (N = 40)	193	120
Fairly effective (N = 53)	218	69
Effective to a high degree (N = 35)	243	50

\* Both Debate and Conflict dimensions have a theoretical range of 0-300.

Note. Adapted from Isaksen & Ekvall, 2010, p.78

discriminate the organization climate from the organizational culture. While evidence in the form of specific studies to support this discrimination was not found by this author, it was apparent that this was a focus for the measures developers as they made significant effort on numerous occasions in literature for the SOQ cited in this paper to define climate and set it apart from culture. “Ekvall has differentiated the concepts of climate and culture. Ekvall defined climate as the observed patterns of behavior, attitudes and feelings that characterize life in the organization. Culture reflects the deeper foundations of the organization” (Isaksen & Lauer, 2002, p. 79). On a micro level the SOQ has served to differentiate between Conflict and Debate. Research shows a consistent negative correlation between the two. Although on the surface the dimensions appear similar, they are very different in terms of their influence on creativity and innovation in organizations and groups. Observing Table 4, we can see evidence of such discrimination and find that across numerous and varied studies, the average scores of stagnated organizations or

“negative” climates show higher Conflict and lower Debate means, while innovative or “positive” climates show a reverse trend.

On table 5 we can see that the only dimension to correlate negatively is Conflict and the author’s note “Conflict relates negatively to all other climate variables, and has a small, yet significant, negative correlation to debate” (Ekvall & Isaksen, 2013, p.79).

**Table 5**

**Inter-Correlations Among Dimensions of the SOQ V 7**  
(n = 3491)

Dimension	1	2	3	4	5	6	7	8	9
<b>Challenge/Involvement</b>	1.00								
<b>Freedom</b>	.482	1.00							
<b>Trust/Openness</b>	.660	.396	1.00						
<b>Idea-Time</b>	.523	.508	.433	1.00					
<b>Playfulness/Humor</b>	.579	.431	.525	.504	1.00				
<b>Conflict</b>	.479	-.171	-.577	-.260	-.386	1.00			
<b>Idea-Support</b>	.700	.501	.645	.642	.617	-.473	1.00		
<b>Debate</b>	.549	.458	.465	.520	.512	-.226	.679	1.00	
<b>Risk-Taking</b>	.574	.554	.477	.595	.515	-.228	.681	.596	1.00

Note. Adapted from Isaksen & Ekvall, 2013, p.18

It can thus be confidently argued that the SOQ has demonstrated validity in many ways over the course of its lifetime to date. This solid reputation has lead researchers to apply this tool in a variety of ways. “The situational Outlook questionnaire has been examined in relation to its effectiveness in discriminating levels of creativity in teamwork as well as perceived support for creativity within the organization. The questionnaire has also been applied to help organizational leaders with their transformation and change efforts” (Isaksen, 2007, p. 459).

### Usability

The cost of the SOQ is calculated per participant and costs on average \$75.00, with a sliding scale for additional participants in the same organization. The SOQ takes on average 20-



25 minutes to complete and it is intended for adult use. Flesh Reading Ease scores for the questionnaire instructions and the items place it in the USA reading level of about 8. While the questions and information collected appear straightforward, “... given the multidimensional nature and intended use of the questionnaire, it must be administered and debriefed by individuals who are qualified and trained to use the theory and measure for effective interventions” (Isaksen & Lauer, 1999, p. 667). There are many reasons an organization would want to use such a measure. Higher climate dimension scores have shown to correlate to higher growth, revenues, profitability and productivity in organizations (Isaksen & Ekvall, 1999). This tool is particularly useful to inform leadership and can direct them on how to tweak the climate. There are normed group results available that the consultants can share with leaders so they can compare themselves to others and then improve dimensions. Follow up re-test measures can aid to monitor the effectiveness of the changes. The SOQ can also be used to inform corporations of their leadership efficacy and approach “overall climate scores significantly correlate with Leadership for Support of innovation” (Isaksen & Akkermans, 2011 p.172). In a publication by Isaksen and Ekvall (2013), additional ways that the measure has been used in studies are highlighted. Such topics as perceived support for creativity, perceptions of best and worst case experience recollections, success in incremental innovation, empowerment for innovation, belief in diversity and promotion of inclusion have been explored and useful data has been produced and shared from the studies.

### **Conclusion**

The SOQ is supported with extensive evidence of reliability and validity. It has been revised many times since its inception as the CCQ, and research and peer reviews span the spectrum of its incarnations. Despite the validity and reliability of the SOQ, there are still some

areas that continue to beg for attention and invite further questions. A self-report measure relies on honesty of disclosure and assumes that one feels and is safe to share information with the organization. Can an organization rely on data that is collected with this in mind?

Furthermore, Research into the measure continues to omit racial, ethnic and other cultural variables in its sample and data collection and interpretation and thus may be problematic with culturally diverse groups, or culturally foreign groups, as norms have not been established within this framework. There are significant differences in the way that women and men view their climate. “Women have significantly more positive scores on all 9 dimensions” (Isaksen, 2007, p.662). What is the reason for this? How does this affect the overall collective aggregated scores? Is this a good thing or indicative of inequity in the system or the measure? There have also been significant differences reported when age is taken into account. Additionally, there has been little effort made to date to explore this measure in cultural context and to compare results. For instance, how would a company in China do on the measure? Is the concept of Risk Taking the same across cultures and leadership concepts? Are the dimensions of the SOQ Western centric?

In conclusion, by doing this research, I am more convinced than ever that understanding climate and learning to improve it deliberately and mindfully is the key to productivity and more importantly, happiness and fulfillment of human beings. As our global network becomes increasingly complicated, we may find ourselves having to return the early stages of understanding climate. As more and more of our workspaces begin to evolve to include and inhabit virtual settings, I consider how one might begin to unravel these climates and identify

the dimensions to measure and understand such environments. Will subsequent versions of the SOQ be able to measure these complex entities? Will the dimensions be the same?

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