4E’s Socratic Model: A grounded theory for managing team creativity in an organisational context

Philip Dennett
Appendix 3
Book chapter:
A Socratic Approach to Managing Creativity in Business (a)

6 PHILIP DENNETT

A SOCRATIC APPROACH TO MANAGING CREATIVITY IN BUSINESS

ABSTRACT  There has been considerable research on identifying antecedents of creativity and the determinants of organizational creativity but researchers are yet to develop an effective model for managing creativity within a traditional hierarchical management structure. It has been suggested that using the Socratic Method to create a learning environment within an organization is a way to foster creativity in an uncertain environment. In this context the Socratic Method is defined as a directed questioning technique to encourage critical thinking. This paper proposes that taking a Socratic approach to champion creativity will enable management to increase creativity in their teams, reviews the relevant literature to test support for this assumption and proposes a model to manage a Socratic Dialogue in a team environment.

Introduction

The importance of creativity in an organizational context was first highlighted by Schumpeter in 1942 when he said that the process of "creative destruction" (new ideas/ways destroying old ones to create value) was at the heart of Capitalism (1942, 82). However, creativity of itself is not enough to guarantee growth. Edith Penrose (1959), in espousing her theory of growth of the firm, points out that a firm’s failure to grow is "often attributed to demand conditions rather than to the limited nature of entrepreneurial resources" (Penrose 1959, 37). Those demand conditions are not just market driven but are also influenced by the culture of an organization which in many cases doesn’t tolerate trial and error decision-making (Thompson 1961, 486). The issue then is to be able to foster creativity in an environment that is not necessarily conducive.

While the ideal traits of the creative individual and the most conducive environmental conditions have been well documented by socio-cultural theorists such as Amabile (1983) and Csikszentmihalyi (1996) there is no clear framework identified for managers to use to foster creativity in real-world conditions where individual and environmental factors are less than optimal.

Decision-making is often the preserve of senior management and is not usually encouraged amongst the rank and file. Gratton (2007) proposes a new approach to management, based on Socratic leadership where, "The role of leader will be less about controlling and commanding, and more about igniting energy and enabling groups to volunteer and emerge." (45). The following literature provides support for this approach.
A Socratic approach to managing creativity

In today’s hypercompetitive business environment there is an air of constant change as companies scurry to catch up to, or retain relativity with, their respective competitors. Often they must achieve this with fewer resources. The speed of this change means that companies “must become learning organizations; places in which everyone learns to do things better in an age of uncertainty.” (Sonnenberg and Goldberg 2007, 34). While the authors mention a number of different approaches, they highlight the Socratic Method as being one of the best options.

Socrates famous *Method* is explained by Kachaner and Deimler (2008, 41) as the “practice of asking the ‘right’ questions to stimulate thinking.” They say that companies who do, end up with a higher level of engagement and ownership of issues. Skordoulos & Dawson (2007) agree saying that this process is particularly useful in times of change where the status quo is being challenged. Socrates’ directed questioning technique is also useful in both leadership and follower roles. Tucker (2007) identifies a number of different roles and applications that have been summarized in the following table:

<table>
<thead>
<tr>
<th>Role</th>
<th>Application</th>
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<tbody>
<tr>
<td>Instructor</td>
<td>Critical thinking and comprehension</td>
</tr>
<tr>
<td>Mentor</td>
<td>Intellectual development</td>
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<td>Leadership</td>
<td>Follower buy-in</td>
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<td>Follower</td>
<td>Probe reasoning</td>
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<tr>
<td>Peers</td>
<td>Open dialogue and feedback</td>
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*Table 1: Roles and applications of Socratic questioning.*

However if managers are to utilise the Socratic Method in promoting creativity in their teams, they must first understand how to effectively harness creativity to produce innovations that will lead to competitive advantage. While it has been demonstrated that employee creativity is of benefit to an organisation (Gong et al, 2009) and is a necessary step in gaining a competitive advantage (Oldham and Cummings 1996) ideas alone “are necessary but not sufficient condition for opportunities to emerge” (Dimov 2007, 718).

Amabile (1983), in discussing the social psychology of creativity, proposes a framework for conceptualising creativity that consists of domain-relevant skills; creativity-relevant skills and task motivation. This framework suggests that creativity is not something that happens in isolation but is the product of an individual’s outlook, experience and environment. In order to benefit from creativity then, an organisation must create an environment conducive to creative thought and action. Or, as Amabile says “creativity requires a confluence of all components; creativity should be highest when an intrinsically motivated person with high domain expertise and high skill in creative thinking works in an environment high in supports for creativity” (Amabile 2012, 3).

What are the traits Amabile’s intrinsically motivated person should possess to maximize their creative potential? A review of literature in the area identifies five traits relevant to creative action:

- self-direction/proactivity
Creativity in Business

- knowledge and experience
- risk-taking propensity
- social competence and
- resiliency.

Figure 1, on page 82, tabulates these characteristics identified by different authors, each of which is discussed below.

Self-direction/proactivity
Writing from a neuro scientific perspective, Rock and Schwartz (2006), identify the importance of self-direction in developing insights (creativity). If insights are generated by the individual, the brain makes stronger connections than if the insight was given to them as a conclusion. If creative insights stem from individual proactiveness in making new connections it is not surprising that there is growing consensus amongst academics that proactiveness is a critical driver of organizational effectiveness. (Kim et al. 2009).

Knowledge and Experience
Without specific knowledge or experience the proactive or self-directed person will be restricted in their ability to conceive and act on new ideas (Sternberg in Sawyer et al 2003, 96). According to Ford (1996) "Accumulated experiences lead individuals to develop interpretative schema, preferences, expectations, and knowledge related to specific domains of behavior." (Ford 1996, 1117). Ford includes knowledge and ability as one of three major influences that either facilitate or constrain creativity (the others being sense making and motivation).

From an organizational perspective then, creativity depends not only on the individual but also on the structures that organize them (Sawyer 2006, 292).

Risk-taking behavior
Creativity, according to Florida (2002), requires "self-assurance and the ability to take risks." Risk features prominently in lists of personal qualities identified by researchers as an antecedent to creativity (Amabile, Gryskiewicz, Stanley 1987). However, in order for risk to be productive there must be organizational encouragement and tolerance (Amabile et al. 1996).

Social Competence
The interactionalist model of creative behavior first described by Woodman and Schoenfeldt (1989) confirms that creativity in an organizational context is characterized by individuals working together in a social context. The importance of this social element was illustrated in research conducted amongst research scientists by Amabile and Gryskiewicz (1987), who found that highly creative scientists had good social skills that enabled them to communicate better and have a stronger rapport with other team members compared with scientists who were less creative.

Resiliency
There is general agreement that resiliency and perseverance are important in the development of creative solutions (Amabile and Gryskiewicz 1987; Oldham & Cummings 1996; Fillis and McAuley 2000). According to Ford (1996) perseverance comes from an individu-
als sense-making process which attributes meaning to specific information and then dictates a certain action, even in the face of ambiguity. The resulting perseverance is therefore logical rather than being based on pure doggedness.

Of the five traits highlighted, self-direction is the one that must be fostered in all individuals for the Socratic approach to work effectively, as a disinterested individual will not actively participate in the questioning process that is designed to stimulate critical thinking. From an organisation’s perspective the task of the manager should be to create an environment where employees feel engaged by identifying the conditions under which creativity will flourish.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Self-direction/Proactivity</th>
<th>Knowledge/Experience</th>
<th>Risk taking</th>
<th>Social competence</th>
<th>Resiliency</th>
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</thead>
<tbody>
<tr>
<td>Amabile and Gryskiewicz (1987)</td>
<td>Intrinsic motivation (self reliance)</td>
<td>Ability and experience</td>
<td>Risk orientation</td>
<td>Social skill</td>
<td>Persistence, lack of preconceptions</td>
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<tr>
<td>Fillis and McAuley (2000)</td>
<td>Internal locus of control, Independence</td>
<td>Risk taking behavior</td>
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<tr>
<td>Ford (1996)</td>
<td>motivation</td>
<td>Knowledge and ability</td>
<td></td>
<td>Sensemaking</td>
<td></td>
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<tr>
<td>Drucker (1985)</td>
<td></td>
<td>Identify and react to change</td>
<td></td>
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<tr>
<td>Gilson and Madjar (2011)</td>
<td>Intrinsic motivation</td>
<td>Problem driven, ability to abstract</td>
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<tr>
<td>Gong, Huang and Farh (2009)</td>
<td></td>
<td>Learning orientation</td>
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<tr>
<td>Mathison (2011)</td>
<td>Creative self-efficacy</td>
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<tr>
<td>Oldham and Cummings (1996)</td>
<td>Intuition</td>
<td>Broad interests</td>
<td>Aesthetic sensitivity</td>
<td>Attraction to complexity, toleration of ambiguity</td>
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<tr>
<td>Dimov (2007)</td>
<td>Action orientation</td>
<td>Social interaction</td>
<td></td>
<td>Continuous shaping</td>
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Figure 1: Creative traits and competencies
Creativity and the Organisation

From an organizational perspective what are the conditions under which creativity might flourish? Amabile, Gryskiewicz and Stanley (1987, 15) identify them as:

- **Freedom**—"Freedom in deciding what to do or, more frequently, how to do one’s work; a sense of control over one’s work and ideas; a freedom from having to meet someone else’s constraints; a generally open atmosphere."
- **Encouragement**—"Management enthusiasm and support for new ideas and new ways of doing things; an absence of destructive criticism and excessive fear of evaluation.
- **Resource and time**—"Access to appropriate resources, including facilities, information, funds, and people; sufficient time to solve problems in new ways.
- **Recognition**—"Appropriate, constructive feedback on one’s work, along with appropriate recognition and rewards."
- **Challenge**—"A sense of challenge arising from the nature of the problem, a sense of pressure arising from outside competition or realistic time urgency."

However, in practice, the reality is that proactive behavior in organisations is often discouraged (Bateman and Crant 1999). They attribute this to the over-controlling effects of rigid company structures and instead advocate a management approach that encourages freedom to pursue broad organisational goals in "fruitful, creative, innovative ways" (Bateman and Crant 1999, 66).

While it is generally agreed (as discussed earlier) that creativity can improve business outcomes, the traditional management model "is built on a monocratic, hierarchically structured authority chain" (Cummings 1965, 221).

Creed (2011) expands on this theme by identifying five categories of organizational norms/rituals where traditional management and creativity are in conflict:

- **Innovation**—Conservatism: scale to assess tolerance of risk-taking
- **Imprecision**—Precision: rigid systems and processes vs more ad hoc approach
- **Relationship orientation**—Task orientation: collegial/people driven approach vs goal/ performance driven
- **Calmness**—Aggression: individualistic, driven and competitive vs group, calm and sharing load
- **Growth**—Stability: fast-paced, high growth emphasis vs slow and steady planned management

The second descriptor on each scale is consistent with Cummings view of a traditional organisation, whereas the first descriptor represents a more creative approach to management. Thus creativity is the antithesis of a traditional hierarchical management structure.

So, given that the culture of an organization can have a negative effect on creativity, how does a manager elicit creativity from team members? Woodman, Sawyer and Griffin (1993) say that while an organisation’s characteristics create the context, organizational creativity is a function of both context and the creativity of groups within that organization.

Andriopoulos (2001, 834) identifies those contextual influences as a combination of:

- Organizational climate
- Leadership style
- Organisational culture
This then is the role of a leader (of an organization or a group within that organization)—to create an environment where uncertainty and risk are tolerated and personal consequences in a creative environment are positive.

### Socratic Dialogue Model

![Socratic Dialogue Model Diagram](image)

Figure 2: Socratic Dialogue Model

Socratic questioning can be used to stimulate a dialogue where participants’ beliefs on an issue are challenged (elenchus) and found wanting by the participants themselves. From this resulting state of confusion (aporia) a joint search for truth is begun. Socrates typically began with a question such as “What is the point of X?” Paul and Elder (2006) agree that the question should relate to a belief or conclusion that is held or has been reached; however other authors suggest starting the dialogue with a collaborative agenda setting process (Bolten 2001; Chesters 2012; Andriopoulos & Lowe 2000).

The proposed Socratic Dialogue Model (Figure 2) synthesizes the approach of Socrates himself with the constructs of 21st century authors (Figure 3) for the purpose of application in a business context. It proposes that the initial question establishes a hypothesis that requires testing (what do we currently believe about the issue?) and is followed by a series of questions: gathering evidence (what evidence supports our belief?); questions to uncover conflicting views (what conflicting views are there?); and finally a series of questions to explore the implications and consequences of the discussion (where does this dialogue lead us?).

The objective of the dialogue is not to make final decisions (Bohm 2010:19) but to engage participants in a creative process that “inspires further curiosity and open-minded reflection” (Skordoulis & Dawson 2007:993). This creative process can be used as a manage-
ment tool to engage participants in the decision-making process in order to foster increased understanding and ownership (Kachaner & Deimler 2008; Skordoulis & Dawson 2007).

<table>
<thead>
<tr>
<th>Socratic Dialogue Model</th>
<th>The Question</th>
<th>The Evidence</th>
<th>The Argument</th>
<th>The Results</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>What do we currently believe about the issue?</td>
<td>What evidence supports that belief?</td>
<td>What conflicting views are there?</td>
<td>Where does this dialogue lead us?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socratic Method</th>
<th>What is it?</th>
<th>Elenchus</th>
<th>Aporia</th>
</tr>
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<table>
<thead>
<tr>
<th>Paul &amp; Elder 2006</th>
<th>Examining origin or statement or source conclusion</th>
<th>Support, reasons, evidence and assumptions</th>
<th>Opposing thoughts and objections</th>
<th>Implications and consequences</th>
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<tr>
<th>Bolkon 2001</th>
<th>Organ questions formed in collaboration with participants</th>
<th>Information gathering</th>
<th>Argumentation</th>
<th>Results</th>
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<tr>
<th>Claren 2012</th>
<th>Problematic situation</th>
<th>Constructing an agenda</th>
<th>Gathering and suggesting</th>
<th>Reasoning and analysis</th>
<th>Making judgements and self correcting</th>
<th>Concluding</th>
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<tr>
<th>Atkinson &amp; Love 2000</th>
<th>Advancing</th>
<th>Over confronting</th>
<th>Fortifying</th>
<th>Opposumising</th>
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**Figure 3: Approaches to creating a Socratic Dialogue**

**The Question**

Socrates typically started with a challenging question, the answer to which people often claimed to know but upon further questioning they started to critically examine their
thinking. Paul and Elder (2006) suggest that as part of this process, the origin or source of these beliefs should also be questioned. This process encourages participants to be self-directed by challenging what they may have been told before and putting them in a situation where they have to actively consider their beliefs. Bolton (2001) suggests a caveat that the original question should be formed in collaboration with participants, a collaboration which Chester (2012) says should include constructing an agenda. Andriopoules and Lowe highlight the creative aspect of this process by using the term ‘adventuring’ as part of creating a perpetually challenging environment where “individuals are encouraged to explore uncertainty, so that they can generate innovative solutions.” (Andriopoules and Lowe 2000, 736).

The Evidence
A desired outcome of this second part of the Socratic Dialogue is that the questions should be challenging and produce a realization that a contrary view is possible or even probable (clenchus). It is important for the questioning to be overt and confronting (Andriopoules and Lowe 2000) and to ask participants to provide evidence of their beliefs (Paul and Elder 2006) to differentiate from assumptions. This process encourages people to use their experiences to reflect on alternatives.

The Argument
By this point participants should be ready to question their beliefs and consider opposing thoughts and objections (Paul and Elder 2006) and at the same time be prepared to argue with other participants (Bolten 2001) to ensure all conflicting views are exposed and examined. At this point of the dialogue group dynamics come into play and participants are forced to consider other opinions. It can also be a test of participants’ resilience.

The Results
The final result stage is to examine the implications and consequences (Paul and Elder 2006) of the preceding dialogue. While Chester (2012) suggests that a conclusion is required this shouldn’t be seen as an ending of the exploration of the issue, rather a summation of the current situation and hopefully as a starting point for further exploration (Bohm 2010, Skordoulis & Dawson 2007).

Model Validation
To test the model’s applicability in a business context, a program consisting of two phases was designed and tested in the field with a service based small to medium enterprise (SME) with approximately 7 staff members. The program started with a series of in-depth, semi-structured oral histories that were recorded. The interviews were conducted with the workers in their own environments (‘natural location’, Hussey and Hussey 1997) using a small number of probing questions. (Sanders, 1982, 357). Follow up interviews were conducted at the end of Phase 2 to determine the change in participants’ perceptions relating to creativity within the organization.
Phase 2 consisted of a workshop, facilitated by the author, using the Socratic Dialogue Model based on a question the company wanted to explore.
Results

To commence the Socratic Dialogue, the question posed was: "What are the distinct competencies we have over our competitors?" In exploring what participants currently believed there were 6 points raised and agreed on by participants. Taking each point in turn, participants were asked to provide any supporting evidence for their beliefs. Interestingly, the only 'evidence' that participants could come up with was a broad "feedback from clients" statement which created a sense of aporia in the group as the reason this question was raised originally was because the company wanted to improve their responses to tender requests after they had feedback that their standard response lacked strong supporting evidence of claims made.

This led into the third stage of the Dialogue (Argument) where each of the 6 points were examined by initially posing the question "Could your competitor's claim the same thing?" As a result there were four claims abandoned and the two remaining ones were questioned further by asking participants to describe how these attributes were manifested in projects they had worked on.

In the final stage of the Dialogue (Results) the descriptions provided by participants were assembled to form part of a proposed project management methodology they could field test and then use as evidence of their unique capabilities.

The session lasted approximately three hours and all the participants expressed surprise that a problem they had found difficult to resolve could be solved so quickly. They also felt encouraged to refine the methodology they developed in the session further. In subsequent interviews all of the participants agreed that the process was both painless and also gave them a sense of ownership that they didn't have before. This feeling can be summed up best by the comment of one participant who said: "Yes, I definitely think the process we went through got us to a good answer to our question. And, I suspect it could encourage empowerment, inclusion and as a result creativity in an organisational situation. It gave me confidence to think more creatively in future."

Implications

The objective of this initial test was to determine whether the Model could be successfully applied in a real world context and the result indicated that the process was robust. Specifically:

- The process was an easy one to work with. No one was confused by the task or had questions that weren't covered in the introduction to the Model.
- Incorporating Bolton's (2001) recommendation that participants should be a part of the decision on the question to be posed meant that participants quickly became actively engaged.
- The process produced an outcome that participants were happy with and provided a platform for future creative endeavors.
- Feedback from participants afterwards supported the hypothesis that creativity would be enhanced through using this process.
Further empirical testing of this Model is required to validate its applicability in a wide range of business contexts and to expose any limitations or adaptations that may be required.

**Summary**

Researchers have identified five antecedents of creativity in an individual; however, in order to harness that creativity an organization must provide a supportive environment that tolerates mistakes. The challenge for managers is that they often work in an environment that is less than supportive or tolerant and their teams are made up of people with varying degrees of creativity. Sonnenberg and Goldberg (2007) suggest that using the Socratic Method to create a learning environment within an organization is a way to foster creativity in an uncertain environment. This paper identified and empirically tested a Model that can be used by companies to foster creativity in their organisations. The model requires further testing to prove its applicability in a broader range of contexts.

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References


Appendix 4
Book chapter:
A Socratic Approach to Managing Creativity in Business (b)
CHAPTER THREE

THE 4E’S SOCRATIC MODEL—A FRAMEWORK TO FOSTER CREATIVITY IN TEAMS

PHILIP DENNETT

Abstract

It has been suggested that using the Socratic Method (a directed questioning technique to encourage critical thinking) to create a learning environment within an organization is a way to foster creativity in an uncertain environment. This article describes the development of a grounded theory to empirically test and refine a model to manage a Socratic dialogue within organizational teams. The resulting 4E’s Socratic Model produced concrete creative outcomes in real-world application in a range of organisations.

Keywords: Socratic method, creativity in business, critical thinking, managing teams

Introduction

This article presents the 4E’s Socratic Model which was developed using a grounded theory methodology to investigate the use of the Socratic method as a means of encouraging creativity in an organisational context.

While there has been considerable research into both individual and organizational creativity, the use of a Socratic approach to managing creativity in organizations has not been comprehensively explored. The objective of the investigation was to develop a new theory grounded in data to provide a base for further examination.

Seven participating organisations were self-selected based on their response to a message sent to 311 business contacts on LinkedIn. This method of selecting was chosen because of the level of trust required of organisations in sharing confidential data. Multiple organisations were selected to ensure that results were transferable which is preferable when dealing with a broad-based phenomenon (Yin, 1981). It is also appropriate in building a grounded theory that will be extended as the study proceeds (Benbasat, Goldstein & Mead, 1987).
Data was gathered through a series of workshops conducted in a real-world setting that examined a question of interest to the subject organisation using the proposed Socratic model (Figure 1). During the workshops, questionnaires were given to each participant to explore their perceptions of creativity as it relates to themselves and their organisation, answers to these questions were used to create a benchmark creativity index for the organisation. At each stage of the data gathering process a series of memos were written to record insights gained and to interpret phenomena that arose.

Through this process 11 themes were identified and then further examined using axial coding resulting in 5 major categories. These categories were: Open dialogue; Internal championing; Organisational environment; Questioning techniques; and Outcomes.

![The question](image1)

**Figure 1: Socratic Model as tested**

**Open dialogue**

—Yes, we were able to have a more open and constructive conversation which helped us to nail down what we wanted to do and what was realistic/feasible. This approach increased the level of input non-Board staff had, which in turn would increase their buy-in and feelings of being valued. Specifically, the process allowed us to plan and reach a realistic goal without being directed to achieve an outcome which wasn’t realistic.1 (Field note excerpt)

This excerpt is an illustration of the importance of encouraging all members of the group to participate. By creating a non-threatening environment, as facilitator I was able to engage with each member of the various groups encouraging them to share concrete examples of what they knew, rather than merely canvassing opinions. It became obvious early in the process that without this more in-depth approach certain team members discouraged others from contributing because of the forcefulness of their opinions.

**Internal championing**

While all workshop sessions concluded with agreement on future direction, in the first session agreement wasn’t reached on specific timeframes or responsibilities. Later feedback suggested that it is easy for deadlines to be missed if there is no champion of the process. In working with the process in
a company making sure that there is an internal champion that continues the process in place of the facilitator means it is less likely that progress will stall.

In one of the groups 5 of the 8 participants reported that they would not change their responses to the creativity index questions as a result of the session. One participant identified organizational rigidity as a barrier to change, and two participants felt that the process would be effective as a change agent if senior management were facilitating change via this process.

To be effective in an organization the process should not only gain acceptance within the team but also must be sold to senior management so that it may be viewed as an effective management tool.

—depends on clearly signalling change. We tend to self-serve in first 2 stages resulting in frustration and disinterest. Need to focus change on what we can achieve.1 (Field note excerpt).

During the session this team made it clear that while they had confidence in the ability of the facilitator and the support of their team manager there was a sense that they were wasting their time due to the bureaucratic nature of the organization and the conservative nature of senior management. It seems that it is not enough to have the support of a team manager – it is also important to have this process recognized as a legitimate part of the overall management philosophy.

The Socratic Model as a management tool therefore needs to be championed by leaders within the organization in order for it to be successful, as conflicting contextual influences could negate any value gained. The role of a leader (of an organization or a group within that organization) is to create an environment where uncertainty and risk are tolerated and personal consequences in a creative environment are positive (Andriopoulos 2001).

Organisational environment

—It is difficult to change because it needs to be approved by too many people up the line. The organisation is rigid but our manager encourages creativity which makes it less frustrating.1 (Field note excerpt).

This comment highlights the need for ownership from within the team. The problems of a rigid hierarchical organization have been well documented as a barrier to creativity—an important outcome of the Socratic process should be to get group ownership of the process to help counteract organizational rigidity. The result of such ownership is apparent from the comment below:

—The open question forum led to exact discussion and specific goals being reached on ideas that have been circulating for quite some time. Project planning - being accountable immediately will make the process more likely to succeed than in the past.1 (Field note excerpt).

Sometimes group cohesiveness will assist in creating change from the bottom up as the following comment states:
This process enabled an open dialogue in which thoughts and ideas could be tabled and challenged. The outcome was better than expected! Having buy-in from all participants was important—this guided the discussion to keep on track (historically a challenge for us). Using this process would definitely help immediate supervisors/Board to understand internal resource challenges. (Field note excerpt).

In a briefing prior to the session, this team identified a conflict between the management team and the Board (not for profit organization) in terms of expectations being unrealistic. The session, which included the Board Chairman, provided a structure whereby everyone felt comfortable that they would be accountable for the outcomes agreed. This came from having in the same session, all the people that had opinions about and were affected by the topic under discussion. The neutrality provided by the Socratic process helped to remove personalities from the debate.

Questioning techniques

While the first workshop concluded successfully it became apparent early that the facilitator should be prepared to actively seek clarification of concepts that were raised. During the Evidence stage, a concept was agreed on by participants, but it appeared to have different meanings or implications to each of them. By asking a series of qualifying questions, before moving onto the next stage, I was able to draw these views out and thus provide a platform for further development.

While I am experienced in facilitating this type of discussion, in a real-world situation specific questioning strategies should be explored prior to a session to avoid stalling the process or ending with a fuzzy outcome that is hard to action. In reviewing data on the application of the Socratic method it became apparent that the Model needed to be more than a single dimension and should be overlaid with a questioning process that identifies the most appropriate approach to questioning at each stage of the Model. The questioning approach should align with the stages of the model as it moves from the known to the unknown.

Outcomes

The initial workshop was the first time the process was tested in a real world setting. The setting was a planning meeting to discuss the firm’s capabilities and to provide direction for future expression of those capabilities in business pitches.

The first step in the process is to put the question under consideration to the group. In this case the question was: What are the distinct competencies we have over our competitors? This question was determined in advance in a separate discussion I had with the Chief Executive. It quickly became apparent that before discussing the question, participants wanted to debate the rea-
sons behind the question and the relevance of it in terms of their business. Their main interest related to outcomes, in other words — how will the answer to this question help us to achieve our goals?

In subsequent workshops, in discussing the question I made sure that each group also agreed on outcomes they wanted to achieve. In one group this made it easier for them to focus on specific actions to take:

—we have spent this week following up on actions from our meeting and have introduced this concept across other areas of our business and are very happy and impressed by the results we were able to achieve.1 (Field note excerpt).

Theory development

This project started as an exploration of the use of the Socratic Method as a means of enhancing team-based creativity in an organisational context. The desired outcome was a grounded theory that would provide a documented and tested model that could be used by managers in a real world context. The four steps in the Model (Figure 1) provided an effective linear progression for a dialogue resulting in creative outcomes in the teams studied. However, the Model as it stands is not comprehensive enough to document a process that can be followed without the input of a trained facilitator. Therefore an additional stage of theory development was required with the objective of adding additional guiding layers suggested by feedback identified in the themes described previously.

Open dialogue

In order to facilitate open dialogue there were two ideas that emerged:

Engagement of all participants
Ownership of the question

The first can be facilitated through the use of concrete questions that explore what people know rather than opinions. The ideal place to start is a discussion on the question itself with input from all participants so that the process starts with an agreement and thus creates ownership of the question.

This approach is supported by Boswell (2006) who, in discussing the use of questions to encourage critical thinking, identifies three question types: concrete, abstract and creative that progressively move from lower level enquiry to higher level abstract and creative thinking. As an aid to implementing the Model, a baseline questioning layer can be added that maps an appropriate question type to specific stages of the process (see Figure 2).
Organisational rigidity was identified as a barrier to creativity. This is supported in the literature by Boswell (2006) and others who identify a range of ‘cultural’ issues that inhibit creativity and innovation. Therefore it will be important to identify a champion from within the organisation who is at a high enough level to influence culture and effect change. The role of this person is to be a creative leader, encouraging creativity in teams and removing potential barriers to provide a supportive creative environment (see Figure 3).

**Creative Leadership**

*Figure 3: Role of the creative leader*

**Questioning techniques**

In Figure 2 a second layer of questioning types was added to the model. However, this by itself does not provide enough insight for someone to work with the model without training and/or experience. Neenan (2009) highlights the danger in relying on intuition when it comes to facilitating a Socratic Dialogue. This is an issue I found in conducting this research. Even though I had prepared a range of questions in advance these only formed a relatively small
part of the questioning process. Therefore, I undertook a critical review of questioning techniques that could be synthesised to provide a third layer that provides specific guidance for each stage of the process.

The key to a successful Socratic dialogue is that it should be a cooperative investigation (van Hooft, 1999) that ends with a consensus rather than an interrogation. To achieve this the role of Socrates is not just to question he must also recognise and react to the dynamics of the group (Gose, 2009) by reining some participants in and encouraging others. So the role of questioning is two-fold—on the one hand to stimulate discussion and on the other to stimulate ownership of both problem and solution.

A number of authors (Paul & Elder, 1996; Boswell, 2006; Oyler & Romanelli, 2014) suggest categories of questions to consider. Boswell focuses on a top-level progression (concrete, abstract, creative) which has been integrated into a second layer of the Model and is supported by Oyler and Romanelli (2014) who propose procedural (concrete facts), preferential (abstract opinions), and judgemental (synthesis or creative) questions.

However, it is important to remember that questions are not asked in isolation as each person will apply their own contextual filtering process before answering. It follows then, that cognition must also be considered.

The most widely accepted theory of cognition is that of Bloom, Engelhart, Furst, Hill and Krathwol (1956). Their taxonomy identifies six levels of cognition: knowledge, comprehension, application, analysis, synthesis and evaluation which according to Krathwohl (2002) represent a cumulative hierarchy which fits neatly into the hierarchy present in the Socratic Dialogue Model. By understanding people’s different levels of cognition we can avoid asking a complex question too early and therefore avoid confusing participants and ultimately frustrating the process.

This leads to a model (Figure 4) with three dimensions (to aid integration of the dimensions the 4 steps of the process have been renamed using a single descriptive word):
### Discussion

The addition of the two extra layers in the Model made it much easier to keep focused as the facilitator. Firstly, in terms of preparation, it suggested consideration of not only questions that might be asked but also staging them at the appropriate level in both type and cognition. Secondly, having a visual of the Model available during the discussion gave immediate guidance for the type of question required at different times in order to stimulate discussion or tease out linkages in the evaluation stage that resulted in more creative thought.

In a final session to test the final iteration of the Model (Figure 5), participants expressed surprise at how quickly they were able to come to a conclusion and also one they felt gave critical direction to their project. This was something as facilitator I also noticed and was surprised to note later that the total time taken in this session was just over 60 minutes compared with similar sessions during the initial data gathering stage that lasted over 90 minutes.
Figure 5: 4E’s Socratic Model

Theory justification

The purpose of this research was to test the viability of a Socratic approach as a tool to champion creativity in an organizational context. The 4E’s Socratic Model (Figure 5) was found to be an effective tool in producing creative outcomes in the context of an organizational team. It achieved this through:

- Producing a creative, actionable outcome in all seven organizations studied.
- Creating an environment where creativity is encouraged by producing conditions that are conducive to creativity, namely,
  - personal freedom—to provide an opinion in a non-threatening environment,
  - encouragement—to think creatively outside normal operating constraints,
o recognition—that each team member’s opinion is valid and valued,
o challenge—to go beyond the common wisdom and create something new and innovative.

• Modeling a culture that encourages creativity and tolerance.

**Delimitation**

As this research is a phenomenological study, the results may not be applicable outside of the organizations studied (Bonomo, 1985). However, this study should be thought of as a starting point for companies wishing to promote creativity rather than a prepackaged solution.

**Limitations**

As participating organizations were self-selected this may indicate potential bias in that they may have a greater acceptance of the need for creativity in their organizations. However, the wide range in levels of creativity measured by the creativity index of each group, means that it would be difficult to state that there were sufficient commonalities that were likely to produce a bias.

Another limitation is that the results are not quantifiable – this could be considered as an opportunity for future research to measure the results of implementing the Model over time.

This study used an external facilitator (the author). This was done to concentrate on the applicability of the model itself and remove any bias that might have come from using different facilitators.

**Recommendations**

In developing the 4E’s Socratic Model in response to the data collected the aim has been to produce a management tool that reflects the experience of taking a Socratic approach to enhancing creativity in a team environment. However, prior to implementation it is important to consider the legitimacy of creativity in the organization and what organizational impediments might need to be removed.

Secondly, pick a project and a team to pilot the use of the model. A successful outcome will prove the value of institutionalizing the model and it will also give insights into how best to apply the process.

**References**


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