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The VORTEX Simulation: Organizational Change

Under High External Pressure

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"Since it's effectively impossible to cover every conceivable situation, top-down systems are forever running into combinations of events they don't know how to handle."

- Chris Langton, Computer Scientist

Background

I attended a highly stimulating, insightful two-day simulation called Vortex, which has been developed over the past 4 years with considerable effort and expense by 3D Learning[2]. The simulation had been used by 3Com, EDS, Lucent, Motorola, Sun Life and the U. S. Postal Service. It is designed to provide participants with an experience equivalent to a year of business activity in an organization which is trying to respond to rapid externally imposed change (client demand, market and economic developments, etc.). A great deal of thought had gone into planning the business simulation, facilitation process, and printed materials, and this particular exercise was designed to further expose and test the simulation. As a result, two thirds of the participants were OD consultants of various stripes, some of who were thinking about becoming practicing associates of the simulation developers. The other third were members of international corporations, concerned with organizational development. The following description provides:

•   The simulation set-up

•   The business scenario

•   What happened

•   Analysis of events

•   Lessons learned

•   A facilitation technique: Generative Conversations

The Simulation Set-up

A simulation is designed to approximate a real world experience without the attendant risks of reality. It is one of the most effective teaching tools. This simulation is designed to test a novelty manufacturing organization's reaction to, and ability to cope effectively with, rapidly changing external forces. Events affecting the firm were so comprehensive and rapid that the functional groups within the organization found they could not cope with them by doing things the way they had been structured (and theoretically, the way they had become accustomed to do them in the past). Participants were forced to examine the effects of external change on their business, and to find ways to plan and implement responses as an organization without relying on slow, formal, hierarchical structures and processes.

The simulation was structured so that participants:

·   Experienced a series of business situations related to the company's survival as an integrated manufacturing enterprise;

·   Periodically thought about what they have experienced after each business quarter of the simulation;

·   Are exposed to organizational theory related to what they have just experienced;

·   Are provided with corporate progress measures of profitability, capability, response-ability, and knowledge-ability; and

·   Are exposed to new ways of thinking about how organizations react internally to pressures from their environment.

The participants were arranged at tables according to business functions. Functions that should have natural working relationships appeared to have been separated from each other.

During the simulation each function (table) was provided with information on what to do (how to proceed) and external information depending on the nature of the function. A horn blast told the functional areas when to get new information from a table designated as the 'Global Business Environment'. The functions were given various pieces of information with calculated intent (mimicking the disruptive events of real life) and the participants had to make the organization work productively in a scenario in which the company is struggling for survival.

After each business quarter, the functional 'tables' are asked to explain what occurred through the perceptual lens of:

·   What a functions' own concerns were about its business effectiveness, and

·   How other groups perceive how the function is doing in their work

The Business Scenario

  There was a lot of information provided about the company in condensed format--a sequence of 2 to 3 dozen critical company events arranged in a snail diagram. Apparently, past simulation participants noted that the diagram provided them with more information than they had from their real-life companies. Essentially the scenario was that of a company struggling to survive after having been an initial marketing success and then falling apart internally as ownership changed, key resources were lost, and product innovation declined with the result of lost market share and declining stock prices.   In the scenario provided, the original founder returns to the firm and sets up a division to revive the firm's flagging products and markets.

  What Happened

As in a real organization, some business functions received little information while others were totally overwhelmed. 'The urgent pushed out the important' and, at first, the functions struggled in isolated silos and only gradually became aware of how to proceed together in the chaos resulting from the flood of information and demands. The drumbeat of external demands disrupted the flow of ideas and effort. Bottom-up conversations were cut off in order to achieve immediate goals. It was the tyranny of outside demand.

  People were preoccupied by their immediate tasks; all talking simultaneously, hearing but not listening to their colleagues. Meetings displaced thinking time. There was no time to set up effective processes to make the chaos manageable and there was a lack of connectivity between functions that needed to coordinate their efforts. Staff in particular functions had no overview of what was happening to the company as a whole. There was no sense of overall direction or vision, little sense of priorities and slight appreciation for how functional efforts fit together. The division's formal leaders struggled to determine and enforce priorities but were sometimes ignored as functional members attempted to deal with specific requirements.

  By the second business quarter, those in some functional areas became aware that they should be relocated closer to others to coordinate efforts, others remained unsure of where they fit and yet others hesitated to reach out and communicate with functions they could coordinate with.

  Although the information demands put upon the participants were very high, the members of the Vortex

Division organization were learning to cope by filtering information, bringing functions together and exchanging functional members to develop product teams. However, the press of events meant that important market information was lost. Some participants were absorbing information unconsciously at a high rate. Their positive and negative reactions were intuitive "gut" and holistic. There was no time for linear thought process. People used their personal powers of persuasion/seduction to get others to carry out tasks. Participants had different emotional reactions as to their sense of usefulness. By the third quarter, an organizational solution was beginning to emerge to the situational crisis.

The 'stove pipe' organization was gradually shifting towards internal *partnering* and the *informal relationships* required getting the job done. This informal organization required more commitment from those involved in order to make it work: complete integrity and authority was required. Formal processes and hierarchical roles were becoming less important.

In a break between the third and fourth business quarters, the simulation facilitators provided organizational members with an opportunity to refocus their efforts, develop some vision, priorities and to generate plans of action.

Lessons Learned

Throughout the discussions at the end of each quarter of company effort it was clear that the **organizational structure and internal and external context** had large, almost overwhelming effect on company members' ability to respond to external events in a productive manner. The **steps to planning, organizing and learning cannot be skipped** even in times of stress lest the whole enterprise come tumbling down. It is not possible to succeed just by working harder. A **shared vision** or a **defined *context***, which could provide a sense of direction, boundaries and hope, is needed for continual transformation to occur.

Because our external world is often changing faster than our ability to reorganize **it is essential to obtain the agility and flexibility provided by informal networks and to allow those informal networks to respond to the demands of the organization's environment.** It is the responsibility of the organization's leadership to provide the context, supports, measurement and reward system that allow this to take place.

This agility would be founded upon the informal networks of the organization that allow members to build relationships, information patterns and knowledge according to their needs to respond to their client environment. It is this agility that allows an organization's members to overcome the boundaries inherent in any large organization.

It was notable how difficult communication was at times especially considering the sophistication of the participants. It led one to appreciate anew how different backgrounds and organizational cultures affect communication. Participants were trying to listen but were only partially hearing each other despite their knowledge and experience. Our *absorptive capacity* is a function of what we are paying attention to. Hearing patterns in information enables us to absorb more. As people relive the same information in conversation with each other they increase their level of *pattern recognition*. When they can freely interact they are less constrained by polite concerns. Constrained organizations develop language others don't understand. Common values promote conversation and can promote communication among diverse areas. Communities of practice communicate more easily than those founded on position or occupational classes.

A Facilitation Technique: Generative Conversations

In addition, I learned a simple yet effective generation/facilitation technique that I will share with you.

The group selected topics of greatest concern for the Vortex Division between the third and fourth quarters. It is called a "Generative Conversation" and is an adaptation of Harrison Owen's Open Space Technology.[3] Each topic was put on a separate flip chart with a champion for that idea. Participants were told that they could go to discuss any of these ideas for as long as they wanted and could leave any discussion group at any time without apology when they decided that they were no longer gaining anything from the discussion. The guides provided for "generating" conversation were as follows:

- Whoever comes to talk is the right person; whatever happens is the only thing that needs to happen;

- 'The law of two feet': – stay in the conversation only as long as it is of interest to you. It is of no offense to leave a conversation. In this situation, self-interest is paramount.

- Emergent topics are possible. You can start up a new topic if you want to;

- When people put up a topic others can ask why they have put it up;

- You can be like 'a bee' spreading pollen (ideas) from one conversation to another.

The question was then asked,

"*What do you need to talk about to take this organization to the next level?*"

Close

A few quotes from The Vortex Simulation Participant Book (©3D Learning, 2000) summarize the intent of this extraordinary simulation experience.

"Can a belief system that demands control, consistency and predictability deliver short cycle time, and highly adaptive responses to clients who have greater and greater choices over where to go to get their needs met?"

Peter Block

Stewardship

"If a system is to have the freedom to self-organize, it must possess a certain degree of 'space' or autonomy... The principle of minimum specifications suggests that managers should define no more than is absolutely necessary to launch a particular initiative or activity on its way... The challenge is to avoid the anarchy and completely free flow that arises where there are no parameters or guidelines, on the one hand, and over centralization on the other."

Gareth Morgan

bout the Author

Arthur Turner has 26 years of consulting and managerial experience in the public sector. As an executive consultant at Consulting and Audit Canada, Dr. Turner has led a variety of multidisciplinary projects for clients. / He facilitates clients through their own unique solutions in strategic and implementation business planning, alternative service delivery, governance and performance management.

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Notes

1. As quoted in M. Mitchell Waldrop, Complexity: the emerging science at the edge of order and chaos (New York, Simon and Schuster, 1992).

2. Information on The Vortex Simulation is available at www.3DLearning.com (retrieved 2/22/2000). want to acknowledge Ken Victor, on of the Vortex Simulation developers, for his contribution in our continuing discussions about the way in which this simulation has emerged.

3. Harrison Owen, *Expanding Our Now: The Story of Open Space Technology* (San Francisco, Berrett-Koehler, 1993).

4. Block, Peter, *Stewardship*, (San Francisco, Berrett-Koehler, 1993).

5. Morgan, Gareth, *Images of Organization* (San Francisco: Altimira, 1999, from www.3DLearning.com /quotesnew.htm (retrieved 2/22/00).

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