## Storytelling and Story Analysis: Mechanisms for Influencing the Development of the Scientific Mind

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There is a growing interest in stories in a variety of sectors. From health care to the World Bank, people are using stories to elicit tacit knowledge, surface assumptions, and learn from experience together. People also find stories pleasurable and engaging. But the pragmatists in the audience say, "So what? Stories just make people feel good." The presentation will help bridge the gap between insight and action, by exploring ways of using stories in the workplace to enrich decision-making, learning, and evaluation.

Stories create connection, energy, and emotional impact. They are used by teachers and mentors to engage, influence, and persuade. Stories are increasingly seen as a leveraged strategy to foster shared understanding and communities of practice in learning environments.

Stories convey culture. Telling stories by the campfire, or the water cooler, or the hearth is a time-honored way to pass on culture, wisdom, and experience. Elders mentor the younger generation by telling stories; craftsmen use stories to help apprentices take on nuance, rules of thumb, and tricks of the trade.

Stories are data. They are used to frame reality, make sense of events, and detect early evidence of new and unforeseen possibilities. And they are cited as "proof" of points of view, judgments, and decisions. However, stories are also seen as "soft", as indicators of infrequent events and the use of intuition rather than rigorous analysis and rational decision-making. In the realm of evidence, stories are referred to as "random and anecdotal." For more valid data, the argument goes, we need numbers, frequency, appropriate sample size, and statistics.

*Story Analysis (TM)* is a methodology developed to address these concerns, bridge the "gap" between stories and numbers, and access the rich pool of experience contained in our stories. Story-telling is a necessary first step, since most of us do not see that "stories" and "analysis" can go together. But once we have a story with emotional resonance, we can look more closely at it and detect clues, signals, and patterns.

By identifying the elements and causal relationships within a story, we can begin to distill the experience within it into "lessons learned" and rules of thumb. These can be viewed not simply as aphorisms, but also as testable hypotheses. To conduct such tests, we need to design naturalistic experiments and use the data of observation to test our hypotheses. This kind of testing can help us to identify more robust patterns, as well as the environmental conditions that support them. At this point, "story" analysis becomes "pattern" analysis, and it becomes possible to use stories to consciously design new patterns of practice, as well as environments and social systems that reinforce and support them. In brief, we see story-telling as the gateway, or portal, to <u>story analysis</u> and <u>using stories</u>. The three steps, taken together, have powerful potential for transforming social, technical, and educational systems. They also provide a foundation, or capability, which can foster more robust approaches in several key areas, such as:

- Evaluation, measurement, and intervention;
- Learning from experience together; and
- Accelerating the learning of trainees and apprentices.