Chapter 7

Methods to Improve Creativity and Innovation: The Effectiveness of Creative Problem Solving

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ABSTRACT

This chapter focuses on the development of organizational creativity, using the CPS methodology, aiming at demonstrating its effectiveness in using the individual and team divergent thinking improvement in identifying organizational problems. A study was undertaken using problem solving teams in seven companies, in which each individual was submitted to a pre-post test in attitudes towards divergent thinking and asked to express the evaluation of the method. All the information reported in the sessions was recorded.

The results indicate a change in attitude favourable to divergent thinking, the provision of a professional, efficient method of organizing knowledge in such a way that can help individuals to find original solutions to problems, and an important way to lead teams to creativity and innovation, according to companies’ different orientations.

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INTRODUCTION

As the world becomes more complex and changes at an accelerated rhythm, the organizations find themselves working in ways poorly adapted to this new and discontinuous environment. The traditional solutions, which granted success for a long time, are no longer suitable, calling for new and innovative ways of doing business. Lately, the importance of creativity and innovation has gathered full recognition in western societies, emphasizing its contribution to social well being and organizational effectiveness (Mumford & Gustafson, 1988), and underestimating the possible nuisances. In the global environment, organizations need flexibility and adaptation to face the changing market conditions as well as efficiency to maintain successful routines (Basadur, 1997). Efficiency refers to the daily routine operation, fulfilling and improving the organizational quality standards; when facing unexpected market changes, the organization must be flexible enough to react appropriately and, finally, the organization must analyze and reflect upon its routines, in order to anticipate environmental changes and therefore adapt by creating new products, services or processes. The tension between these paradoxical forces (routine and change) calls for an organizational system capable of managing innovation without losing quality.

This chapter presents the first results of an action research on an organizational innovation model (Sousa, Monteiro & Pellissier, 2008), and concentrates only in the team problem solving step of the model, trying to demonstrate its effectiveness in developing team creativity. The approach suggested in this chapter illustrates the intervention in seven companies, using a creative problem solving methodology and a divergent thinking questionnaire adapted from Basadur (1997, 1999, 2000), showing that the co-workers of different organizational levels are willing and capable of defining accurate problems, produce useful solutions, and involve themselves in projects to improve the organizational sustainability.

In the first section the main concepts of innovation and creativity will be analyzed and the general theoretical framework explained. Then the principles and the method of creative problem solving (CPS) will be described, providing a global understanding of the organizational interventions. The empirical study, involving seven organizations, seven teams and sixty nine persons of diverse educational backgrounds and hierarchical levels, will be presented and discussed. Also, evidence will be presented, regarding the CPS’s capability to change the participants’ attitudes, help people and organizations to define important problems and find interesting solutions, and organize the team members in the implementation of a project, without interfering with their daily work.

INNOVATION, CULTURE AND KNOWLEDGE CREATION

Innovation, within the framework of a knowledge-based economy goes far beyond the linear or chain linkage models that have long been used in innovation theory to explain innovation processes in high-tech knowledge industries. Here, innovation is seen as a social, spatially embedded, interactive learning process that cannot be understood independently of its institutional and cultural context (Cooke, Heidenreich, & Braczyk, 2004; Lundvall, 1992). Innovation results from the involvement of a diversity of stakeholders, each one contributing with its own body of knowledge in order to build a new common and shared perspective of reality.

Strambach (2002) suggests that the interdisciplinary view of innovation systems is concerned with understanding the general context of the generation, diffusion, adaptation and evaluation of new knowledge, which determines innovativeness. It follows that the focus is on non-technical forms of innovation as defined above. Common characteristics of the different approaches to in-
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