



Topic: CREATIVE PROBLEM SOLVING

Number 31, 2012

1 Becoming a successful scientist: strategic thinking for scientific discovery

Loehle, C

Cambridge University Press, UK, 2010.

This book is addressed to researchers across all types of scientific careers in industry, consulting and academia. It provides practical advice on strategic thinking, creativity and problem solving, and skills necessary to be productive.

2 Creative approaches to problem solving: a framework for innovation and change

3rd edition, 2011

Isaksen, SG, Dorval, KB and Treffinger, DJ

SAGE, Los Angeles, USA. Hardcopy with companion website.

Uses the CAPS – creative approaches to problem solving - system as a framework for problem solving and creativity. CAPS is a “flexible system used to help individuals and groups solve problems, manage change, and deliver innovation.”

3 Creative problem solving for managers: developing skills for decision making and innovation

Proctor, T

Routledge, London, UK, 2010, Print and ebook

An analysis of creativity and its importance in business. Enlarges on a variety of problem solving techniques such as morphological analysis, brainstorming, lateral thinking, synectics and more, and discusses how to evaluate and implement ideas generated.

4 Decision making and problem solving strategies

Adair, J

Kogan Page, London, 2010, Print and ebook

A guide to making effective decisions through practical thinking, this book includes checklists, exercises and simple models for making decisions and solving problems, and methods to sharpen creative thinking.

5 Fostering creativity: expert solutions to everyday challenges

Harvard Business Press, Boston, MA, USA, 2010

Pocket mentor series

Looks at the need for innovation and creative ability in business, in order to keep businesses competitive and sustainable. It demonstrates how to leverage employees' experiences, thinking styles and expertise to create innovative ideas, and how to develop an environment which is conducive to creativity.

6 Gamestorming: a playbook for innovators, rulebreakers, and changemakers.

Gray, D, Brown, S and Macanuso, J
O'Reilly Media, Sebastopol, CA, 2010, ebook.

80 games to: identify the root cause of a problem and find the paths that point to a solution; improve communication across cross-disciplinary teams; role play the user experience; generate more ideas; shorten meetings; simulate and explore complex systems and more.

7 How to cultivate engaged employees

Vlahoutsicos, CA
Harvard Business Review, Sept 2011, pp. 123-126

This article says that "to be successful, managers must see themselves as catalysts for problem solving rather than as problem solvers per se". Managers can either be top-down, command and control, or can truly listen to the experiences of their team. The 6 step process describes how to engage staff, including how to invite disagreement and alternative points of view, reach consensus, arrive at mutuality and invigorate the workforce.

8 Manager's guide to fostering innovation and creativity in teams

Prather, CW
McGraw-Hill, New York, 2010, Briefcase book series

A manager's guide to forming creative teams, defining the right problem, coaching, and creating a climate for sustained innovation and system improvement.

9 Speed thinking: how to survive in a time-poor world

Hudson, K
Allen & Unwin, Crows Nest, NSW, 2010

People now expect a quick and smart response, because they have grown so accustomed to instantaneous communication, and instant online research. With more to do, less time to do it in, and smaller budgets, in a world that is "fast, time-sensitive, constantly changing and collaborative", this book describes how to think quickly and collaboratively.

10 Techniques for fostering collaboration on online learning communities: theoretical and practical perspectives.

Persico, D and Pozzi, F
IGI Global, Hershey, PA, USA, 2011, ebook

Several chapters are dedicated to fostering collaborative online problem solving and collaborative learning.

11 The 3rd alternative: solving life's most difficult problems

Covey, SR.
Free Press, New York, 2011

Covey describes a "breakthrough approach" to explain how to incorporate diverse needs and opinions to achieve conflict resolution, creative ideas and win-win solutions.

He describes his 3rd alternative method for use at work, home, school, the law, society, the world and life in general.

12 TRIZ for engineers: enabling inventive problem solving

Gadd, K

Wiley, West Sussex, UK, 2011.

The TRIZ model of thinking, popular with engineers, states that conflicts (contradictions) within systems are a major driving force for change and improvement in all fields of life. Trade-off and compromise solutions result in more of the same, with unsolved contradictions tending to worsen over time.

This book provides tools for systematic and repeatable problem solving for engineers, innovators and entrepreneurs using TRIZ.

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