

7

Creativity Life Cycle Models

INTRODUCTION

Contrary to popular belief, creativity requires having some type of discipline in place to allow it to be further exercised and result in something that is understandable and meaningful to others. Without some kind of rigor, creative energy is dissipated and its effectiveness becomes less than optimal. The following models are just a few of the ones that can blend well with the project life cycle and its defining, organizing, planning, executing, monitoring and controlling, and closing processes.

MODELS

These models exist to manage creativity:

- Imagination, illumination, and stage gates
- Creative problem solving
- Behavioral
- Traditional creativity life cycle

Incubation, Illumination, and Stage Gates

Daniel Goleman identifies essentially two main stages (see Figure 7.1) applicable to the creative process. The Incubation Stage is the first one. This stage involves letting the unconscious part of the mind go to work. It does so by allowing the mind to float freely rather than controlling and censoring thoughts. Judgment is suspended through emotion, intuition, daydreaming, and imagery. The Illumination Stage is the

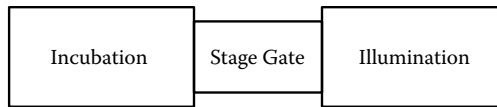


FIGURE 7.1

Two-stage creativity process.

second one. The creative idea seems to originate from a void and then provides the groundwork for innovation.¹ To ensure that the creative process generates ideas of value, James Higgins recommends employing a stage gate system to ensure that ideas are evaluated for their innovativeness. The first series of stages involves allowing the creative process to flow; the latter phases allow for the “rational” mind to take over. The gates are threefold: (1) conduct preliminary investigation, (2) perform a business case to determine practicality, and (3) develop and implement a plan.²

Creative Problem Solving Model

Arthur VanGunder provides an in-depth model known as creative problem solving (see Figure 7.2). He identifies the following eight essential processes:

- Understand the environment by analyzing it to determine if a problem needs attention.³ Not all problems are equal; some are more important than others.
- Increase your awareness about the existence of the problem.⁴ In other words, understand what the problem is about. Problem definition is absolutely critical at this point.
- Gather information about the problem.⁵ Collect information surrounding the who, what, where, when, why, and how of the problem. Of course, use judgment to distinguish the critical from the insignificant elements.
- Generate assumptions about the circumstances or conditions that contributed to the problem.⁶ These assumptions will, of course, be challenged as you know more about the problem and what contributed to it. Remember that assumptions are considered facts by most people—until proven otherwise.
- Determine different alternatives, also known as options, to address the problem.⁷ No limit exists as to the number of options, and they

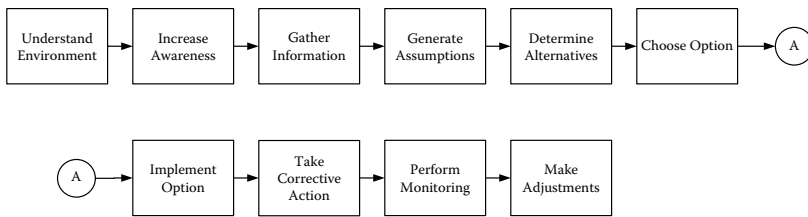


FIGURE 7.2
Creative problem-solving diagram.

can vary in effectiveness. Avoid closing the mind when generating options. It is best to suspend judgment until completing the list.

- Choose one of the options after careful review.⁸ Determine the criteria for making the choice and apply it objectively. Define the criteria clearly. Ideally, it will fix the problem and not the symptoms.
- Implement the option by developing and deploying a plan.⁹ Good project management works well here; its application is a matter of scale.
- Ascertain what was implemented effectively and, if necessary, take any corrective action to ensure the option does the job of fixing the problem.¹⁰ Very few things in life turn out as planned. Implementing a solution to a problem or addressing an issue requires ongoing monitoring that will be likely to involve making adjustments to the plan.

Behavioral Model

Dave Allan et al. developed an extensive creativity process involving six behaviors (referred to as the behavioral model) that conveniently flow in a series: freshness, greenhousing, realness, momentum, signaling, and bravery.

Freshness entails looking at a problem from different perspectives. It requires holding back on accepting assumptions as facts and not using them to provide a solution based upon current reality and previous experience. Freshness, that is, taking a different approach to viewing a problem, is stimulating. It means describing a problem or issue in an alternative way, challenging rules and assumptions, and making seemingly random linkages among different facts and data. Freshness, in others words, centers on reexpression of the issue or problem to be addressed.¹¹

Greenhousing involves laying the groundwork for ideas to blossom by suspending judgment. Analysis often results in exercising judgment

too soon. Under greenhousing, people restrain their analytical side and take a more exploratory view of a problem or issue. They contrast this environment with what they call the emergency-room environment, whereby swift judgment and action allow little flexibility or time to explore. They also note the logical, scientific approach, which, with its pursuit of the right answer, does not allow ideas to take root. They note that greenhouse behavior is exhibited or prohibited in one of two ways. The acronym SUN is used to describe a method that encourages creative behavior through suspension (S) of judgment, understanding (U) via empathy and open questioning, and nurturing (N) by providing a supportive environment. RAIN, as you might suspect, inhibits creative thinking by reacting (R) in a rush to judgment; assuming (A) through the use of uncertain, unverified assumptions that are viewed as facts; and insisting (IN), by attacking an idea right from the beginning. Greenhousing, therefore, allows ideas to grow rather than be attacked the minute they arise.¹²

Realness entails turning an idea into reality through various ways of expressing it. The key is to overcome the tendency to be consumed by a bias toward a way of expressing ideas, verbally or graphically for example, or by developing a prototype. A prototype allows ideas to manifest a sense of being tangible, that is, a sense of realness that has as much an emotional as a logical flavor to it that words and pictures have difficulty eliciting.¹³ However, team members should be open to new ideas for changing a prototype.

Momentum turns an idea into reality. It started with the prototype, but now involves putting it in the real world with urgency and direction. It is taking action by eliminating barriers, such as bureaucracy, and having people no longer bar coding, which starts and stops work when managing several tasks. Both are examples of creating inertia, not momentum. According to the authors, one of the best ways to encourage momentum is to ensure that all energy is aligned toward achieving common goals and objectives, whether organizational or personal.¹⁴

Signaling is about preparing to turn the creation into reality. The purpose is to bridge the difference between analysis and creativity because, as mentioned earlier, a gap often exists here in so many ways. The former is logical, efficient, and judgmental; the latter is open, free flowing, and effective. With signaling, emphasis is on language as a way to bridge the gap. Just as importantly, signaling communicates as much emotion as the logic behind a creative idea and does so in verbal, visual, and kinesthetic ways. Signaling is, therefore, a matter of doing the psychological work to introduce a new idea.¹⁵

Bravery, the final behavior, entails turning an idea into reality. It means that creative people must courageously face all the hardships associated with implementing change. Like all change, positive and negative aspects are associated with taking on the status quo. The slings and arrows of change often inhibit the best creative ideas from being implemented. In addition, overanalysis of an idea and its consequences can be substantially negative when implementing change. Not surprisingly, creative ideas often die during implementation because they become so incremental that they no longer result in any substantive change. True bravery, therefore, requires considerable courage and self-confidence. The forces can be so strong as to seem overwhelming, allowing fear to take over, versus the comfort of the status quo of habitual behavior. With bravery, people often need to step out of the comfort zone by taking action and facing the consequences—intended and unintended—to make an idea a reality through techniques like visualization.¹⁶

Traditional Creativity Model

A more traditional model (see Figure 7.3), and one more frequently cited, consists of five phases that flow in this order: preparation, concentration, incubation, illumination, and verification and production. The *preparation phase* is doing the groundwork to create. It requires learning as much as possible about a certain topic (e.g., issue, problem, concept). It involves obtaining the necessary background, such as common principles, data, problems, and techniques, on a topic. Preparation, therefore, is building a foundation.¹⁷

The *concentration phase* is centered on focusing on a problem or issue by defining exactly what the problem or issue is and determining what is and is not relevant. The result, hopefully, is a well-defined issue. Essentially, it enables focusing on a problem or issue when using creativity.¹⁸

The *incubation phase* is where the focus is least on the conscious level by allowing the subconscious to work and the mind to rest. The mind releases the reigns of concentration and runs free, so to speak. The solution to the issue slowly percolates from the depth of the mind, enabling the next phase to occur.¹⁹

The *illumination phase* is perhaps the shortest of all phases, but by no means the least important. In fact, it is the reason for creativity. This phase allows the creative thought to percolate to the surface. It is what causes

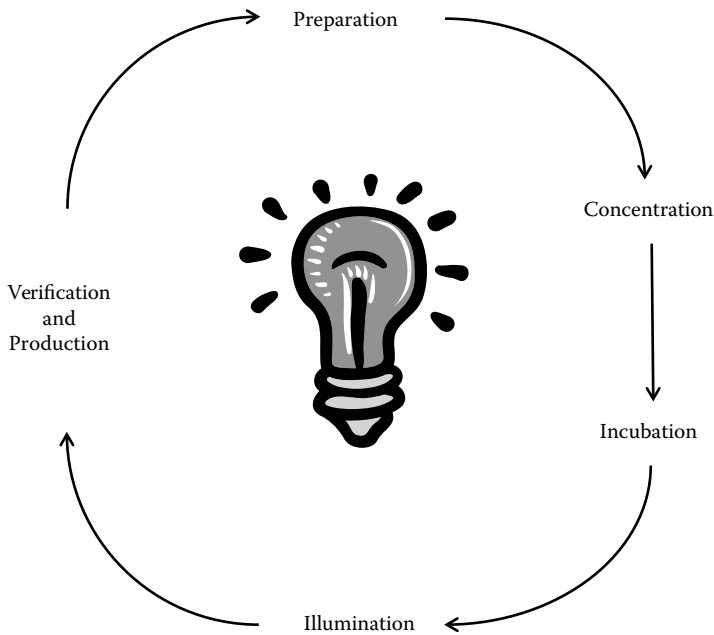


FIGURE 7.3
Traditional creative life cycle.

one to scream, oftentimes figuratively but sometimes literally, “Eureka!” or Aha!” A sort of euphoric feeling consumes the creator.²⁰

Verification and production is the final phase. Now the test of an idea occurs from a practicality standpoint. Technical complications and organizational resistance are just two examples where reality can make or break a creative idea, that is, get it accepted and implemented or rejected.²¹

CONCLUSION

Creativity requires some discipline if it is to contribute to the success of a project. Unfortunately, the perception is often that creativity is something that must lack discipline (e.g., no processes or rules) to enable it to blossom. Nothing could be further from the truth. While occasionally undisciplined, creative people must direct their efforts in a focused and disciplined manner to deliver something that is not only creative, but innovative.

The traditional model of creativity is preferred by the author simply because it has been used extensively in different industries, is the most familiar to people, and has proven to be most effective. The following chapters discuss how the traditional model can be applied with each of the project management processes of defining, organizing, planning, executing, monitoring and controlling, and closing.

Getting Started Checklist

Question	Yes	No
1. Have you decided to follow one or a combination of the following creative processes? Creative problem-solving process as described by Arthur VanGundy Imagination, illumination, and stage gates as described by James Higgins Six behaviors of creativity as described by Dave Allen et al. Traditional model as described by David Campbell Other(s):		
2. Whichever process is chosen, list some ways to apply the processes on your project (e.g., training): Way(s):		

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Creative, Efficient, and Effective Project Management

Ralph L. Kliem, PMP



CRC Press

Taylor & Francis Group
Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business
AN AUERBACH BOOK

CRC Press
Taylor & Francis Group
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2742

© 2014 by Taylor & Francis Group, LLC
CRC Press is an imprint of Taylor & Francis Group, an Informa business

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Printed on acid-free paper
Version Date: 20130916

International Standard Book Number-13: 978-1-4665-7692-6 (Hardback)

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Library of Congress Cataloging-in-Publication Data

Kliem, Ralph L.
Creative, efficient, and effective project management / Ralph L. Kliem.
pages cm
Includes bibliographical references and index.
ISBN 978-1-4665-7692-6 (hardcover : alk. paper)
1. Project management. 2. Creative thinking. I. Title.

HD69.P75K577 2014
658.4'04--dc23

2013030836

Visit the Taylor & Francis Web site at
<http://www.taylorandfrancis.com>

and the CRC Press Web site at
<http://www.crcpress.com>

Creative, Efficient, and Effective Project Management
Ralph L. Kliem
International Standard Book Number-13: 978-1-4665-7692-6 (Hardback)
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To my wonderful family:

Priscilla, Tonia, Mom, Mulder, and Ludwig von Canine

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Preface

Creativity is a word that means so many things to so many different people. Yet, like most abstract concepts, everyone has an intuitive sense of what it is but has difficulty explaining it in concrete terms. Many people and organizations seek to grasp it, knowing all too well that, once in possession, it can turn mediocre performance to levels of greatness not foreseen by any individual or organization.

While this book also covers creativity for individuals, the primary purpose is to enable and harness the creativity of project teams to achieve even greater than expected levels of performance.

In my thirty-plus years in the corporate environment, I have had the pleasure of witnessing and managing teams that had creativity lie dormant and, when the circumstances became right, let the creative juices flow. These juices, if not managed and led satisfactorily, can either destroy or enhance a person's and an organization's performance.

Project managers need to identify ways to capitalize on the creative talents of their people and manage them in a way that not only achieves the vision of a project but does so in a way that exceeds expectations. By exceeding expectations, I am not advocating gold plating, which is giving customers more than what they want. Rather, I mean enticing stakeholders, especially the project team, to perform in a manner that far exceeds the expectations of everyone by creating and improving processes and products, as well as services, which result in innovation.

If you think creativity does not matter, just look at the differences between those companies that place little value on it and those that do. Companies that fail to embrace the importance of creativity often discover themselves lacking the ability to adapt and thrive in a dynamic, changing economy. While their products or services may have reigned supreme for a moment in time, their success is often eclipsed by their overconfidence and arrogance. They get complacent and their output of products or services becomes routine and protective. They are too reluctant to change their processes or products. Firms can arise out of nowhere, taking down a behemoth in an industry through the application of creativity, and become the new market leaders.

I remember watching a television interview with Bill Gates, the founder of Microsoft. He said something to the effect that one of his

biggest fears is that someone in a garage could develop software that could essentially jeopardize his company. That's just how powerful creativity is.

Contrary to popular belief, creativity is not reserved for madmen or people of dysfunctional behavior. Everyone on a project team has it, and every team uses it to some degree or another. Unfortunately, creativity is like energy. It resides in everyone, but for the most part remains untapped. In this book, I want to provide project managers with thoughts, tools, and techniques that will enable them to tap creative energy and direct it to achieving the goals and objectives of projects.

I also want to thank Ameeta Chainani for taking time to review the manuscript and providing insights for improving it.

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