

## PM WORLD TODAY – FEATURED PAPER – NOVEMBER 2009

# Assessing the Art and Science of Project Management

*By Harold Schroeder*

### **Why Project Management Matters?**

Your organization's project managers influence the success or failure of your business to a greater extent that you might imagine. If your business activity is mainly organized on a project basis, as is commonly the case nowadays, project managers represent one of your most important investments. Whether dealing with a critical organizational transformation, overseeing projects which are crucial to the delivery of business goals, or implementing public sector initiatives, the skills and expertise of project managers are of paramount importance in today's business environment.

Are you confident that your project managers have the appropriate level and mix of skills to deliver what is required of them? Does the organization as a whole have the right level and mix of project management skills, and are these effectively matched to project and program management requirements? If not, the possible consequences include at best wasted resources and poor organizational direction and at worst a failure to achieve business goals and even eventual collapse of the business, especially in the cut-throat economic environment currently prevailing globally.

The crucial importance of effective project management to the ability to meet business goals has been reflected in an extraordinary growth in the size of the Project Management profession in recent years. Between 1989 and 2004 alone, it is reported in one source, the number of Project Management Professional (PMP) members of the Project Management Institute (PMI) increased from 1,000 to more than 75,000, whilst the overall membership expanded from around 5,000 to over 100,000.<sup>i</sup>

Despite this expansion, and the obviously high level of investment by organizations in project management personnel, the stark reality is that many major business projects fail. In an international survey of senior business executives conducted by the Economist Intelligence Unit last year, for example, 58% of respondents reported that at least half of their organizational change initiatives over the past five years had not been successful<sup>ii</sup>. This suggests that, despite the increased focus on project management in today's business world, many organizations either lack adequate project management skills or are not making effective use of the skills that their Project Managers do possess.

## Why Projects Fail

The problem may lie in an over-emphasis on formal tools and techniques, rather than the other skills and attributes which contribute to successful project management. This approach may result, in part, from an over-reliance on key project management resources such as the PMI's Project Management Book of Knowledge (PMBOK). The PMBOK defines the specific processes required for effective project management within nine Knowledge Areas which include, for example, project scope management, project time management, project cost management and project communications management. Whilst this resource is to be commended for setting a standard for effective project management and systematically defining the processes involved, its emphasis is on what should be done at each stage, rather than how to do it.

As many business projects continue to fail, there is an increasing amount of evidence that effective project management involves much more than the mere application of processes, tools and techniques. What is proving to be particularly important in ensuring the success of projects are the “softer”, “people-focused” skills which underpin the ability to successfully implement the standardized project management tools and techniques. For example, the ability to define the scope and objectives of a project is not enough – a project manager must also be able to communicate these effectively to all stakeholders in a way which secures their commitment to the project. Similarly, whilst a project manager may be highly skilled in the design of Gantt Charts setting out a project timeline, this skill will be wasted if they lack the intuitive ability to pick up on problems or risks which might threaten the ability to complete the project on time. Without the application of these types of skills as well as formal project management tools and techniques, projects are bound to fail.

Numerous empirical research studies have provided evidence that the soft skills of project management are among the most important in contributing to project success. The Economist Intelligence Unit survey, for example, found that the key elements of success in successful initiatives were leadership, planning and communication, whilst the 2008 McKinsey Global Survey<sup>iii</sup> of executives similarly found that factors such as good communications, setting clear and high aspirations for change, engaging employees and involving senior leaders were most closely associated with a successful organizational transformation. Conversely, when projects fail, this is most frequently due to people-related factors, especially the difficulties of gaining the commitment of both senior management and all employees. Clearly, organizations need to ensure that their project managers have appropriate knowledge of project management tools and techniques, but equally the soft skills required to implement these effectively.

## The Art and Science of Project Management

An increasingly popular approach to understanding effective project management is to conceptualize it in terms of “science” and “art”. This acknowledges that good project

management requires not only knowledge of and the ability to apply technical or “science” skills, but also the softer “art” skills relating to human behaviour and interactions.

Project management science skills generally consist of a knowledge and ability to use specific project management techniques or tools such as those set out in the PMBOK, which are most likely to be gained from training. In contrast, project management art skills, such as good judgement, adaptability, business acumen and leadership abilities, are often grounded in inherent personal attributes or abilities, but can also be developed through on-the-job experiential learning. Applying the right balance or mix of art and science – something which will vary by different projects - is the key to successful project management (Figure 1).

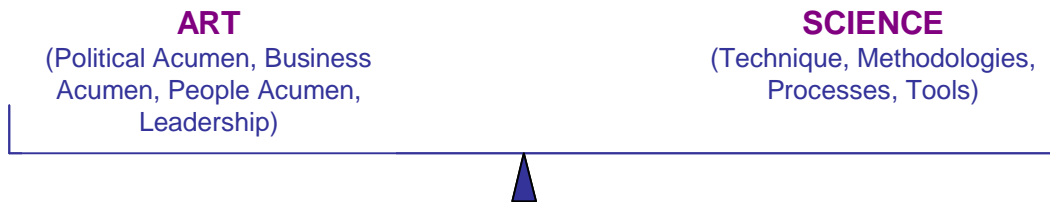


Figure 1: The Art and Science of Project Management

Sometimes, the distinction between art and science project management skills is also conceptualized in terms of “right brain” and “left brain” thinking respectively, as illustrated in Figure 2, with both being equally crucial to effective project management. A logical, left-brain kind of approach is normally required when developing and implementing project management processes and techniques, such as a project time-line, budget or communications plan, but a right-brain, more holistic approach is needed to identify all possible influences on the project and to pick up intuitively on unexpected issues or opportunities that may arise.

Left Brain - the “science”	Right Brain - the “art”
Logical	Random
Sequential	Intuitive
Rational	Holistic
Analytical	Synthesizing
Objective	Subjective
Looks at parts	Looks at wholes

Figure 2. Left and Right Brain Thinking

## The Importance of Assessment

So, how can organizations find out whether their project managers possess the right blend of science and art skills? How is it possible to ensure that the organization as a whole is equipped to manage its projects effectively and thus optimize its ability to meet critical business goals? How does a business go about matching its project managers to specific projects in order to minimize risks and achieve positive and useful project outcomes?

First and foremost, if certain types of project management skills are lacking within the organization, or if people are not well matched to the projects they are managing, there are likely to be tell-tale signs. The obvious symptoms of ineffective project management are likely to include projects running over schedule or over-budget, or not delivering their objectives. There may also be high levels of stakeholder conflict or a lack of engagement of employees in the projects.

Symptoms such as these should be regarded as a sign that the systematic assessment and improvement of project management within the organization are urgently needed. Even in organizations where project management appears to be working well, an art and science-based skills assessment is likely to yield many benefits, such as:

- Greater effectiveness in ensuring that project managers are allocated to projects for which they have the appropriate types, mix and levels of skills.
- An improved ability to identify and address project management training needs, and a more efficient use of training and development budgets.
- An improved ability to identify and address project and program manager recruitment requirements.
- More generally, an overall improved standard of project management, resulting in better team- and partnership-working, fewer conflicts and improved conflict resolution abilities.

## The Schroeder & Schroeder Approach

Traditionally, project management skills have been assessed mainly on the basis of qualifications, testing, or proven knowledge of particular tools and techniques. Whilst this method has its place, particularly in relation to assessing knowledge of the science of project management, it is largely inappropriate for assessment of the art of project management, which is much less suited to direct measurement. In many cases, art skills in project management can only be identified indirectly from examples of their application in a project manager's current job or previous work experience.

This suggests that a holistic, multi-methods approach to assessing project management skills is crucial in order to provide organizations with the information they need to identify and address gaps and weakness, build effective project management teams, and match the right people to the right projects.

Schroeder & Schroeder, Inc. have developed a unique holistic approach to the assessment of project management skills at both the individual and organizational level. This approach is grounded in extensive research as well as a quarter century of practical experience which has enabled us to identify the “art” and science” skills which are most critical to effective project management. In order to effectively assess these art and science project management skills, we use a range of quantitative and qualitative data collection and analysis methods. These are tailored to the specific information needs of our clients and include, for example, a paper-based review of qualifications and career histories, questionnaires, 360° assessments and in-depth interviews.

The triangulation of data from a range of sources results in the most accurate assessment of project management skills at the individual level, and a wealth of data which can be analyzed and aggregated in various ways to generate an understanding of the state of project management across an organization and how this function can be strengthened.

### **Next Steps for Your Organization**

Whether your organization is undertaking a critical transformation initiative or has projects designed to deliver specific business goals, ignoring the need to assess and improve project management skills is likely to be a high-risk strategy. Conversely, there is evidence that businesses which focus on enhancing their skills base reap major benefits. A British trade journal recently reported, for example, that one of the leading UK engineering companies attributes its sustained 30% annual growth largely to a strategy of recruiting graduates with a diverse range of skills, including people-related “soft skills”.<sup>iv</sup>

A greater awareness of the “art” and “science” of project management and the incorporation of this approach into recruitment, human resource development and project planning are excellent first steps to improving project management in any organization. This will help to ensure that its project managers not only have a good knowledge of relevant methods and techniques, but also the ability to implement these effectively.

However, to truly maximize the benefits of project management in your organization, a more comprehensive and systematic skills assessment is likely to be needed. Schroeder & Schroeder’s unique assessment approach, based on our art and science of project management framework, can be an invaluable addition to your business strategy.

## About the Author



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Author



**Harold Schroeder** is the President of Schroeder & Schroeder Inc., a firm of experienced professional program and project managers, management consultants, and corporate managers focused on providing Transformation Management consulting

services to private and public sector organizations.

The focus is on helping organizations reduce the risk and uncertainty in launching, accelerating and maintaining successful transformation initiatives using the art and science of transformation management. Senior level professional experience is provided using a holistic approach; applying both deep and broadly based functional knowledge and experience. Project management skills help with managing the complexity of programs and projects. Consulting subject matter knowledge provides the depth of insight required for particular types of transformations. Corporate experience provides the deeper organizational and industry understanding.

Mr. Schroeder is an experienced strategic program adviser, project manager and management consultant with over a quarter century of experience consulting to Boards, Executives and senior management. He has extensive experience in both the public and private sector. Mr. Schroeder has had a long and successful career as a management consultant and as a project manager of large and complex projects.

He has led various management consulting practices in large consulting firms and acted as project manager on over 100 consulting engagements. He has worked with staff and management at the most senior levels of both private and public sector organizations. Mr. Schroeder boasts a successful track record involving the development and implementation of enterprise-wide strategies, along with large-scale, enterprise-wide change transformation projects. He has a reputation with clients in building organizational capacity, developing staff, achieving accountability, and delivering on results – using highly developed analytical

problem solving and decision making capabilities.

Having worked many years in politically challenging and complex environments with demanding timelines and deliverables, Mr. Schroeder is recognized by clients for his superior relationship-management, problem-solving, communication and negotiation skills. He has conducted and managed projects in a broad range of industry sectors.

Mr. Schroeder holds a "Secret" Federal security clearance. He is a Fellow Certified Management Consultant (FCMC), a Project Management Professional (PMP), a Certified Health Executive (CHE), and a Certified Human Resources Professional (CHRP).

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<sup>i</sup> Newell, M. (2005). Preparing for the Project Management Professional (PMP) Certification Exam. AMACOM, 2005.

<sup>ii</sup> Economist Intelligence Unit. A change for the better: Steps for successful business transformation, 2008. Available at [http://viewswire.eiu.com/report\\_dl.asp?mode=fi&fi=1003398485](http://viewswire.eiu.com/report_dl.asp?mode=fi&fi=1003398485).PDF.

<sup>iii</sup> McKinsey & Company. Creating organizational transformations: McKinsey Global Survey Results, 2008, Available at [http://www.mckinseyquarterly.com/Organization/Change\\_Management/Creating\\_organizational\\_transformations\\_McKinsey\\_Global\\_Survey\\_results\\_2195](http://www.mckinseyquarterly.com/Organization/Change_Management/Creating_organizational_transformations_McKinsey_Global_Survey_results_2195).

<sup>iv</sup> Anonymous (2009) Focus BTMA: Merc achieves 30% growth through people power. *Metalworking Production*. March 2009.