

## From Body of Knowledge to Embodied Knowledge: Leveraging the Project Management Professional (PMP) Certification

By Jennifer Tucker, PMP - OKA (Otto Kroeger Associates), [jtucker@typetalk.com](mailto:jtucker@typetalk.com)

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**Abstract.** The Project Management Professional (PMP) certification is one of the hottest credentials available for managers today. Unfortunately, receiving training in formal project management principles is one thing; applying them within an organization is another. Here, we first introduce the project management body of knowledge (PMBOK), upon which the PMP certification is based. Next, we consider the challenges that often face managers – and their projects - in applying their PMP certification back “at the shop.” Finally, we suggest possible approaches that organization development (OD) professionals might take to help project managers and teams increase their effectiveness.

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Developed and governed by the Project Management Institute, the Project Management Professional (PMP) certification is one of the most popular credentials available to managers today. Often, however, certification training programs focus more on preparing for the certification exam itself than on applying the project management knowledge base back at the shop. As such, some managers are left holding a certification, but are uncertain as to how to apply their new knowledge to effectively drive their projects forward. Ultimately, this can result in an organization with many PMP's, but without consistent delivery of effective management practices at the project level.

As the PMP certification continues to build momentum, organization development (OD) practitioners will increasingly find themselves working with organizations that have invested heavily in Project Management education. Understanding the framework underlying the project management body of knowledge (PMBOK) – and connecting this framework to team and leader development activities with project managers – can help OD professionals maximize their impact in project-focused systems investing heavily in PMBOK education.

Given this setting, this paper and its associated Organization Development Network (ODN) presentation focus on the following objectives:

- Introduce the basic elements of the project management body of knowledge (PMBOK) and their importance.
- Review the challenges encountered by managers in applying the PMP within their organization, illustrated through the problems that many projects suffer from.
- Propose approaches that organization development professional might take to help managers more effectively apply the PMBOK on their projects.

This paper targets the project level. The intention is not to undermine the importance of the organization-level design and processes required to sustain and support a project-driven system, however, the primary “project” here is to address the specific interests and needs of project managers in their daily work.

## The Project Management Body of Knowledge: An Introduction

Project management is the application of knowledge, skills, tools, and techniques to a broad range of activities needed to meet the requirements of a project. The project management body of knowledge, periodically published by the Project Management Institute (PMI), describes these skills, tools and techniques, and associated best practices. This section introduces some of the essential features of this “project management knowledge set.”

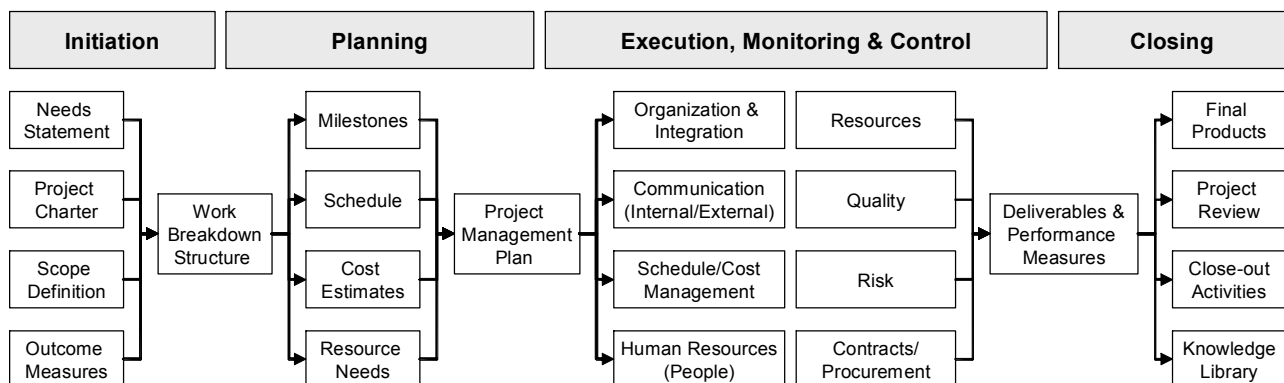
The first step in understanding the project management body of knowledge is to clearly define what a project is. While this may initially seem simplistic, for professionals used to focusing on organization-wide or leadership team dynamics, this can require a slight adjustment in how assessments and interventions are structured and framed.

The Guide to the Project Management Body of Knowledge (PMBOK Guide) provides the following definition and characteristics of a project:

- A project is a temporary endeavor, undertaken to create a unique product or service.
- Every project has a definite beginning and a definite end.
- A project’s desired product or service is different in some way from other products and services that the organization produces.
- A project is a means of achieving and implementing an organization’s strategic plan.
- A project team – as a team – seldom outlives the project. Once the project is complete, they are disbanded, and members move on to other projects and other teams.
- Projects are first and foremost outcome driven – it is the ultimate product or service, assessed against performance measures, which determines project success.

Once the need for a project is identified, the PMBOK defines distinct Project Management Process Groups and Knowledge Areas. Project Management Process Groups are separate phases defining the project’s life cycle sequence. Knowledge Areas are specific areas of management activities, with associated expertise, needed to guide each of these processes to closure. The figure below lists these process groups (gray boxes), their associated knowledge areas/activities (white boxes), and how they are generally sequenced.

### Project Management Process Groups & Knowledge Areas



Ultimately, each “knowledge area” drawn above represents a set of activities that managers complete during a project, resulting in some type of working document, tool, product or service. Detailing all these activities would require many pages beyond this paper’s limit; however, to illustrate, the box to the right lists the several actions embedded with the “risk” knowledge area.

The graphic, of course, represents an idealized version of how projects should unfold. In our experience, in the rush to begin the “real work” of a project, the initiation and planning process groups are often collapsed into one; and in the face of pressure to stay on schedule and within budget, monitoring and control become crisis management.

For the OD professional, the framework provided in the figure above can provide a reference for identifying where a project is in its life cycle, discovering what areas might be under- or over-emphasized, and revealing possible areas for project team development.

*Example: Project Management activities associated with the knowledge area of risk:*

- Identifying potential risks,
- Ranking risks against some set of criteria to determine probability and potential impact/consequences,
- Developing mitigation plans in case a risk is realized,
- Regularly assessing and reporting on the likelihood and/or realization of risks as the project unfolds,
- Implementing risk mitigation plans,
- Closing risks once they have been overcome by events, or realized.

This type of assessment can often be accomplished by reviewing specific project artifacts, and asking the project team questions about them. This can provide great insights about a project’s strengths and blind spots in a short time. Here are artifacts, questions, and insights OKA has found particularly useful in our work with project teams:

Artifact	Questions	Possible Insights
<p><b>Project Charter.</b> Developed by the project’s sponsors, this document establishes the mission, driving goals, scope, boundaries and objectives of the project.</p>	<ul style="list-style-type: none"> <li>• Do you have a copy of the project charter? How does the work you are doing support that charter?</li> <li>• What’s happening on the project that seems to be outside the charter?</li> <li>• How is the project sponsor currently involved in the project?</li> </ul>	<p>Many project teams do not have a formal charter, and act primarily against the work breakdown structure (next). Asking about the charter may reveal the degree of team agreement on the project’s mission and goals; and can help point to incremental growth in scope – called “scope creep.” This project element also helps reveal how involved the sponsor is in the daily activities of the project.</p>
<p><b>Work Breakdown Structure (WBS).</b> Outlines the work packages to be performed, resources assigned against those packages, the time projected to complete the package, and the milestone deliverable that will result.</p>	<ul style="list-style-type: none"> <li>• Do you have a copy of the work breakdown structure?</li> <li>• What pieces of the WBS are you responsible for? How do you report progress against those?</li> <li>• How are hand-offs managed when someone has completed their piece of the project? Who depends on you, and who do you depend on?</li> <li>• How are changes in the WBS communicated?</li> </ul>	<p>The WBS can provide tremendous insight about how a project is managed: how much individual activities are tracked and controlled; how accountability and power is distributed; how much communication there is across work pieces; and how progress against goals is assessed.</p>
<p><b>Organization Chart.</b> Describes the roles and relationships between people on the project.</p>	<ul style="list-style-type: none"> <li>• Do you have a project organization chart? When was it last published? How accurate is it?</li> <li>• If I compared the chart to one released __ months ago, how different</li> </ul>	<p>An organization chart analysis can help reveal insights related to communication paths and power dynamics – both formal and informal. It can also point to staffing problems (e.g., multiple “vacant” or “acting” labels), high turnover (multiple</p>

Artifact	Questions	Possible Insights
	<p>would it be (both in terms of structure itself and people on it)?</p> <ul style="list-style-type: none"> <li>• What are the relationships and communication like between boxes on this chart? Who do you go to for guidance or resources?</li> </ul>	<p>name changes), frequent reorganizations, fast growth (often leading to role clarity issues), and possible silos in work efforts.</p>
<p><b>Stakeholder Communications Plan.</b> Describes how relationships and communication with internal and external interests are initiated, maintained and ended.</p>	<ul style="list-style-type: none"> <li>• Who is your key customer? Who is the true beneficiary or your product or service, and what need does it fill?</li> <li>• How is the stakeholder management plan carried out on a daily basis?</li> <li>• Are activities described in your communication plan also in your WBS?</li> </ul>	<p>This document, and the degree to which it is followed, helps point to how customers, sponsors, organization leaders and other groups are recognized, differentiated, and integrated into project activities. Too often, stakeholder management plans outline the interactions proposed with these groups, but plans aren't then translated into activities on the schedule.</p>
<p><b>Risk Management Plan and Risk Matrix.</b> The Risk Plan addresses how risks will be managed; the matrix tracks risks through the project life cycle.</p>	<ul style="list-style-type: none"> <li>• How and how often is the risk matrix updated? Who is responsible for this, and who can add risks?</li> <li>• Think about a problem that has occurred on this project – can you trace it back to a risk that was identified earlier? If not, what risk could have helped anticipate the problem that actually occurred?</li> </ul>	<p>A project team's approach to risk management reveals insights about conflict management and levels of empowerment. It can help indicate how open the project team is to raising concerns or possible problems; how alert the team is to external forces; and how cause-effect analysis and feedback is integrated within the team.</p>

These artifacts and questions are a great way to get an initial snapshot of what a project team values, and how it executes against those values. Now, let's take a look at the possible points of failure often revealed through this type of assessment.

### Where Projects Fail: Identifying Points of Leverage

Despite the substantial body of knowledge available to project managers today, projects continue to struggle and fail at remarkably high rates. The real questions become why, and how can OD professionals intervene to help managers get things back on track?

One explanation for the gap between institutional knowledge and project delivery success is this: While the PMBOK is useful in providing activity classifications and tools that project managers can deploy on their projects, it is less instructive on *how* to use or apply these in the real world. Many project managers are selected based on their expert tacit knowledge in a subject area related to the project – the real challenge is helping them better communicate and coordinate that knowledge, and the knowledge of others, across the project.

The PMBOK guide, for example, notes the following “interpersonal skills” as critical to project success:

- Effective communication
- Influencing others
- Leadership
- Motivation
- Negotiation
- Conflict Management
- Problem Solving
- Teamwork

Despite this acknowledgement, the PMBOK guide offers no advice for developing these skills. As Reich and Wee (2006) note, “the PMBOK guide recognizes the need to pass learning to succeeding projects through Lessons Learned; however, it does not set the stage for learning within the project team by discussing concepts such as coaching, mentoring and experimentation... Although the guide is clear about using knowledge from experts, it is silent on the subject of knowledge coordination within the project team in general.”

How does this gap between body of knowledge (explicit knowledge) and embodied knowledge (tacit knowledge) manifest itself in the “real world?” Here are some problems frequently encountered along the path of project performance:

- **Inability of project team to succinctly communicate project’s mission and driving goals.** Particularly on information technology programs, project teams often talk in terms of the technology or tools used, rather than the goals and desired outcomes of the project. Failing to speak in “plain English” often leads to misunderstandings and misfires in project delivery, a failure to effectively influence others, and conflict with those outside the project.
- **Poor client management and communication skills.** Closely linked to the first issue, the relationship between the project manager and the project sponsor is a critical one, yet often, these relationships are not managed effectively. As a result, assumptions about trade-offs between scope, time and cost are made without input from the customer; and the true needs driving requirements and specifications are lost.
- **Failure to manage scope creep.** One of the leading causes of project delays and overruns is a failure to keep the project within the boundaries of the charter, or to recognize when those boundaries are at risk. Too often, core project needs that relate directly to the mission are translated into requirements, which lead to derivative requirements, and derivative specifications that are no longer linked to the outcomes actually needed.
- **Failure to differentiate between stakeholder groups.** In an effort to streamline communication and requirements, project teams often group all customers into a vaguely defined group called “users,” without recognizing the difference between primary users, beneficiaries, and sponsors. This can lead to scope creep, conflicting missions and alienated customers if important unique needs are not acknowledged.
- **Lack of team and meeting management skills.** As noted in the definition of a project, project teams are often groups of technical experts convened for only a short time to deliver against a project’s goals. Too often, however, project managers are not trained in the team management skills required to establish and maintain effective team dynamics, including problem solving and decision-making methods, conflict management, and team process management. While developing other people and providing them with feedback are essential skills, they are often skills that project team members have not been taught in their formal education programs.
- **Over-emphasis on risk management leads to highly controlled environments that hinder innovation and risk-taking.** While risk management can be useful in systematically considering future cause-effect relationships, it can also lead to project teams that view the future in terms of risks rather than opportunities. This can lead to a risk-averse culture, where innovation and the uncertainty associated with experimentation are discouraged – leading to missed opportunities for new and value-added solutions.

These points of failure are not presented to paint a pessimist picture of project management. Rather, they are provided as potential points of leverage for an OD professional to enter a project management system. By recognizing common problems, and providing development activities that target those areas, it is possible to demonstrate the “quick wins” needed to gain credibility with a pressured project team.

### **Taking Action: Intervening with Project Managers and Teams**

With the project management stage set, how might OD professionals help both managers and their teams maximize the benefits offered by the project management body of knowledge? Here, we present both approaches that we recommend for working with project teams; and topic areas that often create value for a project team and with managers (see right).

- **Link leadership and team development to the achievement of technical goals.** In our experience, many project managers were selected for that role based on their technical expertise – not their people-management skills. As such, achieving acceptance of team and leadership development programs requires that they be sold in terms that demonstrate their link and contribution to technical accomplishment.
- **Embed real-time problem-solving case studies into programs.** If interpersonal and team training is accepted by the project, use every opportunity possible to integrate real-time project problem solving within the designs. Learning is more likely to be remembered and acted on if it immediately helped solve a problem, meet a need, or enhance project success.

*Training and development topics that often speak to the needs of project managers and teams:*

- An Introduction to Team Process Management: Group Behaviors, Decision-Making and Problem Solving.
- Meeting Management: Outcome Tracking, Action Planning and Avoiding “Analysis Paralysis”
- Influencing and Negotiation Skills: Identifying and Meeting Core Needs
- Customer Relations Management: Recognizing and Responding to Stakeholder Motivations
- Conflict Management: Conflict Modes and Alternative Responses
- Coaching and Mentoring Skills
- Project Leadership
- Innovation and Risk: Striking a Balance between Proven Practice and Creative Action
- The Project Life Cycle: Anticipating and Responding to Shifting Needs and Priorities

- **Structure approaches in “quick hit” modules.** For project management teams, time is one of the most precious resources available. With long hours, intense pressure, and frequent milestones, attending training or coaching sessions can seem like an intense burden, detracting from openness to the content and possible benefits. Wherever possible, structure work in segments that can be delivered in shorter, but more frequently held, sessions. This sustained interaction, with sharply focused and action-oriented content, may achieve greater payoffs over the long term.
- **Blend a focus on the leader’s development with a focus on quantifiable benefits and near-term successes.** In our interest to support the growth and development of people in a system, we sometimes forget the practical need to demonstrate the value of OD to near-term business-focused results. Wherever possible, identify ways to describe – and even quantify – the benefits that an OD intervention has brought to project outcomes.
- **Help jump start projects in the strategic planning phase.** OD professionals supporting an organization’s strategic planning process are in a unique position to help establish the

upfront needs statements and project charters that lead to a project's initiation. By recognizing the ultimate needs of the project management team, OD professionals may be able to help translate strategic visions to the implementation realities required to solidly position a project for success.

Each OD professional brings his or her own tools to each client and engagement. Strategic planning, group facilitation, mediation, coaching, leadership development, skills training, personality and team assessment tools, appreciative inquiry approaches, and teambuilding - all have a place and potential role in the project management landscape. Our continuing challenge is to place these activities in a project management context - bringing the best of the project management body of knowledge to the bodies, minds and hearts of the project teams we serve.

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### **About the Author:**

Jennifer Tucker, PMP  
Consulting Director, OKA (Otto Kroeger Associates)  
Phone: 703-591-6284  
E-mail: [jtucker@typetalk.com](mailto:jtucker@typetalk.com)

Jennifer Tucker (Consulting Director, OKA) is an experienced group facilitator and trainer, management consultant, and project manager. Past and current work includes facilitating technical and scientific work groups, conducting leadership development and teambuilding workshops, leading organizational assessments for technology programs, and managing public outreach and communication projects. Her most recent work has been concentrated with information technology projects and teams - specifically in the public sectors of defense, health, and environmental protection. Jenny holds a BA in Environmental Science from Wesleyan University, and an MS in Management from Purdue University. She is a certified Project Management Professional (PMP). She is currently working towards a PhD in Science and Technology Studies.