



White Paper

Building Project Manager Competency Improves Business Outcomes

Increasingly, successful organizations are optimizing their human capital with project manager competency assessment and training.

“It is Crystal Clear ...”

PM College has been researching the value of project management training since its inception, in an effort to objectively link training investment to business outcomes. As part of ongoing research into the value of training, over the past few years¹ we have interviewed the Learning Officers at several of our largest training clients to find out how they were tracking or measuring the success of their project management training programs. The quote in the title above comes from a global manufacturer of construction materials. Let's put his comment in context:

“We have seen a definitive improvement in the quality of project delivery. It is crystal clear: all the triple constraints are always met when we use the methodology [...] before, we never had a project on time and never knew what the scope was to start with. After project management training, we are on time, within budget, and produce high-quality work every time. The executives notice.”

To understand the magnitude of the business impacts that result when major initiatives are smoothly managed from project kickoff to benefits tracking, many companies are now putting in place measurement systems that seek to assign a dollar value to the improvements in project delivery. To date, few training organizations have focused on measures that specifically express the business value of training, relying instead on self-reported metrics—knowledge gain, participant satisfaction, or numbers of employees trained—to gauge the success of the training program.

But a new trend in project management is changing that. In the past, few project management offices (PMOs) were directly involved in planning or delivering training for project managers and project support staff. However, new research² shows that the majority of PMOs today not only get involved in training but they:

- » Have a project management training program in place ... 49%
- » Evaluate the project management competency of project managers ... 67%
- » Offer the following types of project management training:
 - » Leadership training ... 55%
 - » Project management basics ... 85%
 - » Advanced project manager skill development ... 51%
 - » Project management software tool training ... 67%
 - » PMP preparation ... 42%
 - » Business skills training ... 34%
 - » PM certificate or degree program ... 22%

Since PMOs are becoming responsible for project management training, they are also becoming the leader in measuring the business value of that training. All the PMOs in the companies interviewed were in the process of designing or implementing measurement programs that would specifically link gains in project management competency to measurable business outcomes such as improved time-to-market (or other cycle-time measures), saved opportunity costs due to on-time project delivery, and other business-focused metrics.

While measuring the value of improved project manager competency is a project in itself, it is one worth doing. According to the training director quoted above, “If we can reduce cycle time by even a few percentage points, the courses have paid for themselves.”

This is not the first indication we have had, of course, of the business value of project management training. As early as 2001, our *Value of PM Training* study showed that, of companies that invested in project management training:

- » 75% experienced moderate to extreme improvement in schedule performance
- » 66% experienced moderate to extreme improvement in cycle time
- » 69% experienced moderate to extreme improvement in customer satisfaction³

Since then, numerous studies have borne out the business benefits of improved project management. In one 2014 study, it was found that of the top-performing organizations in the study—those that scored highest on eight measures of organizational performance—67% had training programs in place as compared to only 26% of the low performing organizations.⁴

Three Real-World Examples

In 2006, one of the finalists in our PMO of the Year Award competition, American Power Conversion, reported that, by properly defining the project manager role, evaluating each project manager’s competency, and requiring that each project manager achieve PMP status to qualify for a promotion, they achieved an astounding turnaround in project schedule performance. In 2002, only 21% of their projects were completed on time ($\pm 10\%$). In 2005 and 2006, 51% of projects were completed on time ($\pm 10\%$).⁵

In another compelling example, the business value of improved competency was driven home when, in 2009, a major retail chain engaged PM College to address a global, multi-year, multimillion-dollar implementation project that was behind schedule and experiencing severe cost overruns. Morale for the project was low and aspects of the project were already deemed failures. PM College put the team through a project recovery workshop in tandem with an on-the-job mentoring program for more than 30 project managers involved in the project. During the

mentoring program, the project was re-scoped and re-planned with the first successful site implementation occurring in under six months.

Most recently, an interview with the leader of the project management training program for one of the world's largest consumer-products companies revealed that simply assigning "advanced" instead of "intermediate" project managers to their most valuable programs had boosted success rates (defined as "meeting all booked targets") from 50% to 66% ... in under a year.

More examples can be found in our 2014 white paper, *Project Management: Not Just for Project Managers*.

Now that we know improved competency pays for itself, how does an organization get started with a structured competency improvement program? And how can the measurement of business value be built into the program?

A Roadmap for Developing Project Manager Competency

The ultimate goal in competency development is sustainable performance in managing projects. This can be accomplished by creating a well-trained workforce capable of maximizing their potential in the various

Step 1 → roles required in project management. The results will be higher job satisfaction, higher customer satisfaction, and improved project performance—all ultimately reflected in organizational financial performance.

Step 1: Define Roles and Competencies

To begin, your organization must identify the roles necessary to implement, and sustainably practice, project management. These progressively responsible roles include project team members, project management

Competency Development Roadmap

1. Define roles and competencies
2. Assess competencies
3. Establish a professional development program with career paths
4. Execute training program
5. Measure competency and project delivery outcomes before and after training

specialists, team leaders, project managers, program managers, and project executives such as portfolio managers or chief project officers. (For a complete description of the roles hierarchy in the PMO, see J. Kent Crawford's *Optimizing Human Capital with a Strategic Project Office*)

The definition of project management roles works in two ways to improve organizational competency. First, it allows the organization to hire for the project skills and responsibilities they actually need today, or which will be needed in the future. Second, it allows training to be focused in a just-in-time fashion, to teach skills that will be immediately applied, and to develop a learning progression that begins with a solid foundation to build upon as the individual grows in competency.

For each role, a job description serves as the basis for defining the competencies needed to fulfill that role. A standard job description lists the major tasks or functions of the job that describe what is to be done. Competencies list the abilities needed to conduct those tasks or functions. Your organization needs to

Sample Matrix Establishing Competency Levels for Various Roles

ROLE	Team Member	Team Lead	Project Manager	Program Manager	PMO Executive
COMPETENCIES	Produces the project deliverables, performs the work	Leads 1-5 people on a segment of the project	Leads multiple teams on a small-to-large project	Manages multiple projects or large complex projects	Creates and deploys enterprise-wide project management practices and enforces compliance
Initiating the project	1	2	3	5	4
Developing the project plan	1	3	4	5	4
Building the project team	1	3	4	5	5
Managing stakeholders	1	2	4	5	5
Managing the project	1	3	4	5	4
Managing the team	1	3	4	5	4
Closing the project	1	3	4	5	4
Business skills	1	2	3	4	5

Figure 1: This Project Management Performance Expectations Worksheet shows the competency level needed to successfully perform that role. Competency levels are based on a scale of one to five, with five being the highest.

have competency-based job descriptions that also list specific performance expectations for each major task or function. They are the observable behaviors and actions that explain how the job is to be done, plus the results that are expected for satisfactory job performance. Figure 1 shows a framework identifying the competencies as well as the levels of competency needed to fulfill various project management roles.

The numeric rating expresses the standard expectation for the level of competency needed to successfully perform that role. Project management competencies

will vary across the spectrum of job roles within the field.

Step 2: Assess Competencies

Once competencies are defined, your organization

needs to assess its project management employees (or a specific project management population). It is extremely important that a communication plan be developed and executed during this time informing the employees about what will be expected of them and the reason behind the assessment. Employees sometimes resist these types of initiatives, viewing them as a way to justify an organizational realignment and therefore threatening. The assessment process should be clearly focused on building strengths, not eliminating staff.

The second area is the most difficult to assess: the behaviors necessary to be successful in the stressful role of a project manager. There are identifiable behavior traits that have been shown to contribute to the success of an individual in this role. Administering a valid, reliable, and unbiased EEOC-compliant assessment

Sample Knowledge Assessment Profile Scores

Team Average and Individual Project Manager Scores

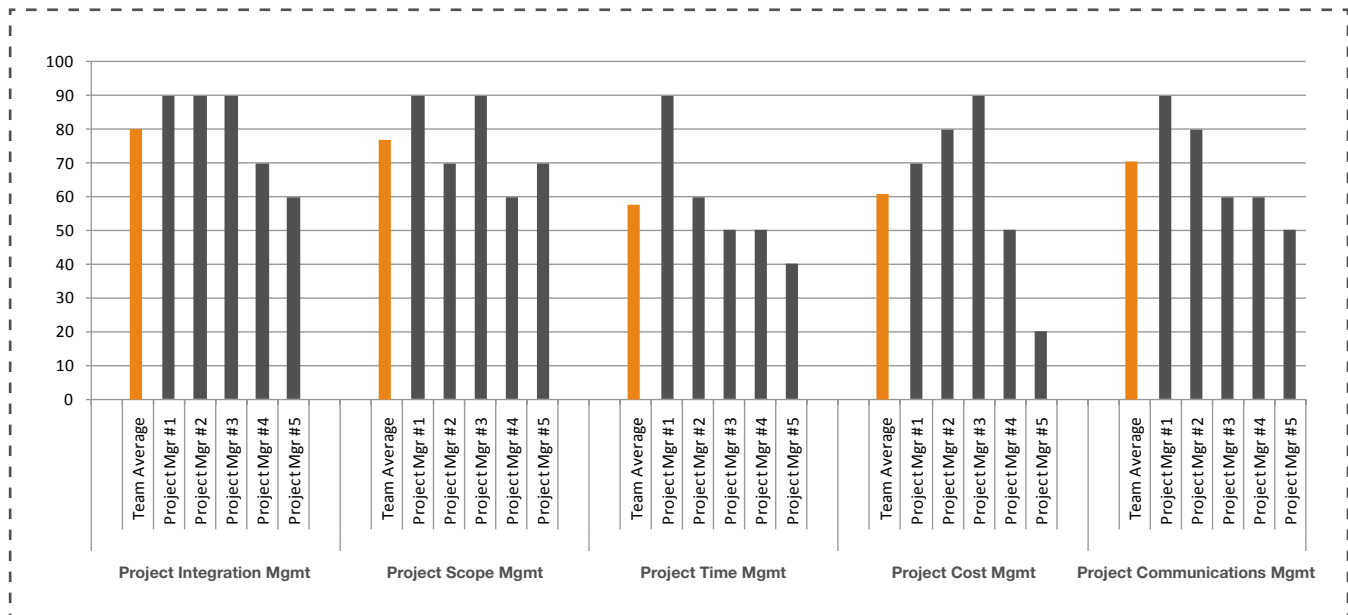


Figure 2: This chart, from a PM College Knowledge Assessment report, shows how well an individual compares to others tested, and to the team as a whole, in each of the project management knowledge areas.

interpreted by certified psychometrics helps demonstrates one's potential success for this role.⁶ Attributes of leadership, interpersonal relations, problem solving, decision making, personal organization, and time management are measured. Because projects come in many sizes and complexities, some individuals may thrive in an environment where they have the autonomy to run small, standard projects yet struggle when given larger, more complex projects. For an organization to effectively manage all their projects, they need to know which project managers thrive under which conditions and to develop an array of personnel suited to all situations.

The final area to be assessed is workplace performance. This includes a self-assessment as well as an assessment by people who have first-hand knowledge of the candidate's performance in the workplace (raters). Raters can be peers, subordinates, supervisors, or clients.

The candidate and the raters apply scores to a number of key performance indicators in the project management process areas (see Figure 3). There is a dual focus to this assessment: confirmation of performance and analysis of competency. Are there significant gaps in scoring between the candidate and raters? If not, the candidate's performance has been evaluated accurately. If so, the organization needs to determine why, so an accurate performance rating can be determined. Once it's been confirmed that the candidate's performance has been evaluated accurately, competency needs to be determined. Is the candidate's performance at the level needed to successfully fulfill the role; in other words, is the person competent in the knowledge areas or key performance indicators evaluated? If not, the organization has an opportunity for professional development actions.

The greatest value of these assessments is realized by aggregating the results of all three assessment areas (knowledge, behaviors, performance), and using the

Sample Project Manager Workplace Performance Assessment

Results by Rater

Process Groups	Key Performance Indicator	Self Rating	Manager Rating	Subordinate Rating	AVG Rating
Initiating a Project	Conducts stakeholder analysis	3.4	3.3	3.4	3.4
	Obtains project charter approval from sponsor	3.3	2.8	3.1	3.1
	Frames high-level project scope ensuring alignment with organization and customer needs and expectations	3.2	2.9	3.0	3.0
Planning a Project	Identifies, qualifies and quantifies the project's high-level risks	3.3	2.9	3.0	3.1
	Is able to create work breakdown structures (WBS) for the approved scope of work	3.2	2.9	3.1	3.1
	Builds appropriate project schedule that defines activities and dependencies to deliver approved scope	3.5	3.2	3.3	3.3

Figure 3. An example of the score sheet resulting from a Multi-Rater Assessment.

information to develop a comprehensive view of the project manager population. Building a professional development plan for the organization based on both the individual and aggregated team results of the competency assessment will help strengthen project management skills for the individual as well as the project management capability of the organization and lead to better overall project performance.

These assessments help organizations target training where deficiencies are recognized, thus eliminating unnecessary training programs and ensuring more productive results from their training investment. They raise awareness of an individual's and/or project manager population's strengths, limitations, motivations, and potential. They can also be effective with team building helping teams work together more effectively. Individuals benefit from the personal feedback they

receive on their current knowledge, behaviors, and performance to make informed career and professional development decisions.

Step 3: Establish a Professional Development Program with Career Paths

A program like the one outlined in this paper needs the support of the organization to carry it beyond the classroom and into the work environment. Executives and managers must communicate to employees that their performance in the workplace is expected to contribute to improved project and organizational performance. The only proven way to do this is to base individual performance evaluations on whether project outcomes (linked to overall strategy) have been achieved. No doubt, this is why PMOs (47%) now

carry out performance evaluations for project managers.⁷

In addition, to attract or keep the best project managers and to serve as a motivator for up-and-coming personnel, the organization must consider creating a project management career path to show individuals how they can move from entry-level positions to higher levels in the organization as a project professional. This career path must include at least three elements to be valuable: experiential requirements, education/training requirements (knowledge acquisition), and documentation and tracking mechanisms.

Experiential requirements detail the types of on-the-job activities that have to be accomplished for each level in the career path. Education and training requirements detail the types of knowledge needed to be successful at each level of the career path. At the lower levels, these tend to be fulfilled by taking basic courses designed to provide exposure and practice to the rudimentary skills required of that level. Upper-level positions require more advanced education and training. This may include topics that go beyond project management – business strategy, finance, leadership, etc. Documentation mechanisms include recording the attainment of certificates, degrees, or other credentials that substantiate the acquisition of the desired skills.

Once a career path is in place, the next step is to ensure that the necessary experiential and educational

opportunities are available. Experiential opportunities should be coordinated with the appropriate resource manager and the human resources department. Information collected from the competency assessment is used to create a targeted training program. The training program should be designed to enable candidates to fulfill the requirements identified in the career path. It should also be progressive; that is, the training requirements to become a project team member should be prerequisites for becoming a project manager, and so on.

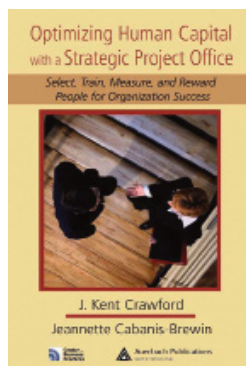
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Step 4: Execute Training Program

Conduct training and mentoring sessions that target skill and deficiency gaps. Make sure the program allows for experiential and educational opportunities. The training program should allow employees to fulfill the requirements identified in their career paths. Execution of the training should be progressive; that is, the training requirements to become a competent project team member should be prerequisites for becoming a competent project manager, and so on.

The execution of training will be largely based on the organization's culture, current project management maturity level, and need. It is a critical component of success. Speed of execution will also be dependent on need and priority within the organization. For sustaining the momentum for this whole program, Step 5 becomes an overarching critical success factor.



For full details on the development of career paths in the PMO, see J. Kent Crawford's *Optimizing Human Capital with a Strategic Project Office*, Auerbach Publications, 2006. Find it on Amazon.com (ISBN: 978-0-8493-5410-6)

Step 5: Measure Competency and Project Delivery Outcomes Before and After Training



At the inception of a professional development program, the organization should measure the current

project management performance—of individuals and the organization as a whole. This baseline serves as a benchmark against which they can measure progress towards improved performance.

This means that measurements of performance need to go beyond the traditional self-assessment of the classroom experience. They need to include individual measures such as project management knowledge, but also things like frequency of use of standard methodology artifacts and processes. They must also include project management performance measures such as cost performance, schedule performance, customer satisfaction, cycle time, and others.

Ideally, a baseline is determined for each performance measure before the professional development program is implemented. At an appropriate time after the program has been completed, performance should be measured again to determine whether there are changes in behavior and improvement in project delivery outcomes. This may seem obvious, but in fact few companies match training investment to changes in work behavior or improvement in project delivery. This is changing. Five out of five of the companies interviewed for our study were in the early stages of implementing a measurement program of this type and expected to have hard data on the business impacts of the training within the year. Specifically, they stated they are implementing:

- » 360-degree evaluations to compare whether training participants' self-assessment of knowledge gain translated to observable behavior changes on the project.
- » A questionnaire designed to solicit feedback from key stakeholders with 30 questions about project performance factors, each one rated from A to D.

The results will be aggregated and analyzed in round-table discussions.

- » Benefits tracking of the project portfolio, so that budget and schedule compliance (or slippage) can be correlated to portfolio value.
- » Focus groups, using key stakeholders to gauge internal customer satisfaction.
- » Measured mentoring, where project managers with troubled projects receive one-on-one coaching, and project results are evaluated after a set number of mentoring hours.
- » Cost allocation back to the business side, so that project management improvement can be measured in dollars saved over time.

A telling statistic collected in 2012 is that, although 64% of all PMOs responding to our study have implemented competency measurement programs, for those PMOs in the study that we identified as “best in class” (based on capability level), 100% measure competency.⁸

The Bottom Line

Project management offers a valuable set of tools for an organization to more effectively manage their resources, both human and capital. And professional development programs that are competency-based help organizations target their training dollars to make the most difference in project management outcomes. Matching project manager competencies with the types of projects they are prepared to handle will result in more effective project execution and, subsequently, better organizational performance.

Increasingly, successful organizations are optimizing their human capital with project management competency assessment and training. At the same time, they have the opportunity to demonstrate the business impact and value of project management by developing a measurement strategy to link competency improvements to project delivery improvements and project delivery to the execution of strategic initiatives.

References

¹ Internal PM College qualitative research studies, conducted April 2010, May 2012 and March 2014. Interviewees were heads of project management training at: a global construction materials manufacturer; one of the world's largest retailers; two global consumer products companies; major beverage industry manufacturer, solar energy corporation, and one of the top global consulting firms.

²*The State of the PMO 2014*. Glen Mills, PA: PM Solutions Research, p. 20.

³ The Value of PM Training. Cited in *Optimizing Human Capital with a Strategic Project Office* by J. Kent Crawford et al. (2006). Boca Raton, FL: Auerbach Publications, pp 319–32.

⁴ *The Value of Project Management* (2009). Glen Mills, PA: PM Solutions' Research; see also *State of the PMO 2014*.

⁵ American Power Conversion (2006). PMO of the Year Finalist Essay. In *An Inside Look at High-Performing PMOs*, Crawford, J.K. et al. Glen Mills, PA: PM Solutions Research, p. 67.

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⁷ *The State of the PMO 2010*, *ibid*.

⁸ *The State of the PMO 2012*, *ibid*.

Related Reading

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Develop and Sustain Superior Performance

The ultimate goal in performing competency assessments is to develop and sustain superior project management performance. PM College's Project Management Competency Assessment Program focuses on building the strengths and identifying the gaps in project management knowledge and skills, resulting more effective project execution and, subsequently, better organizational performance.

Visit www.pmcollege.com for an overview of PM College's competency assessment program or call us to schedule a personalized walk-through of the program components and how assessment results are being used by other organizations to deliver effective training and strengthen team capabilities.



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