

Distinguishing PM Competence in Training and Development, Organizational Assessment and Certification

Stacy A. Goff, PMP; President, ProjectExperts; a Founder of *asapm* and USA Representative to IPMA

Abstract—Everyone appears to be boarding the Project Management Competence fast train (a reference to Shanghai’s MagLev Fast Train, shown below; this paper was originally presented in Shanghai at the IPMA 2006 World Congress). But few people really understand the



nature of PM Competence. Some know how to develop it, a few know how to assess its presence in a project team or Project Oriented Enterprise, and even fewer know how to certify it.

While professional societies have made significant progress in developing Competence-based Program and Project Manager Certifications, the “*forgotten many*” stakeholders have been largely ignored. It is not enough to certify Program and Project Manager Competence: one must build Competence throughout the team. This article shares a perspective gained in 24 years of training, coaching, and assessing factors leading to demonstrated Project Management Competence.

The audience of our paper and this article includes Project Managers, their Managers, Team Members, Human Resource Managers, Project Management Training Vendors, and Executives of Project-Oriented Enterprises. It also includes professional organizations who intend to improve project performance by improving *all* stakeholders’ Project Management Competence.

Keywords—PM Certification, PM Competence, PM Competence Development, Organizational Project Performance Improvement, Skill-Building.

1. INTRODUCTION

IN too many situations, we observe speakers who interchange the terms Knowledge, Skills and Competence without regard to their meanings. As a result of these flawed practices, a number of people have been certified in project management Knowledge, and believe they are competent as Project Managers. In the past, some companies even required that all PM job applicants needed certification, because they had the same mistaken impression, that Knowledge equates to Competence. We’ve even heard that “Knowledge is a Competence!”

asapm [1], the USA Member Affiliate of International Project Management Association, has worked since its founding to dispel the confusion and clarify the differences between Knowledge, Skills and Competence. *asapm* continues to make progress, now offering its competence-based Project Manager Certification program. *asapm* also works to help others improve their understanding of the difference between Knowledge and Competence. It is anticipated that this clarification will continue as Project Managers, Enterprise Executives and project management training vendors all rush to catch the Competence fast train before it leaves the station.

2. IT’S ALL ABOUT COMPETENCE

2.1 Some Definitions

What is Competence? Some definitions will help. Webster’s Dictionary defines Competence as: Qualified, capable, or adequate for the stipulated purpose. ISO 17024 [2], the Competence Standard, defines Competence as: demonstrated ability to apply Knowledge and/or Skills and, where relevant, demonstrated personal attributes as defined in the certification schema. ProjectExperts’ [3] experience with the subject leads us to define Competence as: Consistently-demonstrated and appropriately used Attitudes, Behavioral Attributes, Skills and Knowledge, resulting in clear Enterprise benefit.

In the USA, the term Competency is the preferred term, and the equivalent of the term Competence. To avoid confusion, we use the term Competence throughout this article.

2.2 Societies Embrace Competence-Based Certs

Most PM-related Societies now offer or have announced Competence-based Program or Project Manager certifications. While IPMA was early-on-the-scene, the rest of the market clearly recognizes that it must move to PM Competence.

2.3 Before and Beyond Certification

Even with this refreshing “discovery” of the need for Project Manager Competence and the consequential rush to join the Competence Fast Train, serious questions remain. For example, as *asapm* President Dr. Lew Ireland, points out, “*Certification of the individual does not add value to the organization: Done well, it does recognize value.*” And we agree. So the obvious next question is, what exists that assists one **to achieve the competences that do add value?**

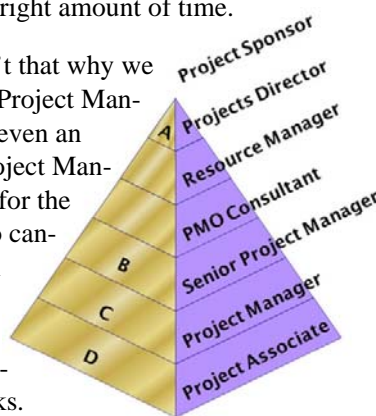
3. WHO NEEDS PM COMPETENCE?

3.1 Target Audiences: Individuals

PM Competence is not just for Project Managers. While Enterprises are finally paying attention to the need in that audience, too many are still failing to develop the Project Management Competences of all the other project Stakeholders. They are today's forgotten many. **One must develop Competence throughout the team.** Every project stakeholder should be competent in his or her role.

For Example: A common project failure point is the gap in Competence (and resulting performance shortfall) from a Resource Manager who fails to correctly prioritize projects, and then assign the right Team Members with the right Skills, the right amount of time.

But, one might ask, "Isn't that why we want to have competent Project Managers?" The problem is, even an incredibly competent Project Manager cannot compensate for the project stakeholders who cannot competently perform their roles—thus requiring the Risk Response action of finding and correcting your weakest links.



3.2 Beyond Individuals: Teams and Organizations

Project Management Competence benefits individual project practitioners. It has great potential to benefit Project Teams as well. For example: we use Competence Assessment as part of Project Kickoff in larger projects. What better way to identify the strengths and gaps of your extended team—and what better timing for this action, than at Project Start-up?

For Departmental use, certain elements of Project Management Competence are the closely-held secret of Line Managers who have Upper-Management aspirations. For the Enterprise, PM Competence is already a strategic weapon and competitive advantage for many of today's most successful organizations.

3.3 Understanding Competence's Importance

Clearly, PM Competence matters in all Project-Oriented Enterprises. And this helps explain why most professional PM societies have either adopted a Competence-based Certification approach, or are now rushing to do so.

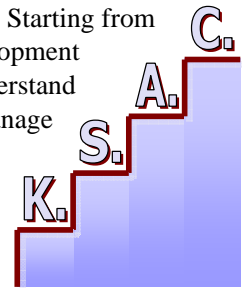
This Fast Train to PM Competence raises the question of how one traceably assesses and develops Competence. Another question: how do you determine current Competence requirements for the roles you play, identifying gaps and strengths, and establishing a development plan against valid Competence criteria? But perhaps we are getting ahead of ourselves. Before we discuss how individuals and organizations develop Project Management Competence, let us look at the journey we travel to achieve any type of Competence.

4. EXPLORING PROJECT MANAGEMENT COMPETENCE

4.1 ASK and the Competence Development Ladder

How do you achieve Competence? Can you *teach* it?

And if not, how can you get there? Starting from the base of our Competence Development Ladder at right, you must first understand the differences between Project Management **K**: Knowledge, **S**: Skills, **A**: Attitudes and Behavioral Attributes, and **C**: Competence. One fact is certain in the search for PM Competence: you must assure that your PM training efforts contribute to project success. This as opposed to merely consuming staff time and training funds on throw-away PM Knowledge with no resulting Project Performance improvement.



The basis of our ProjectExperts' Competence Development Ladder is the classic training and development ASK model: Attitudes, Skills and Knowledge. Familiar to many as a categorization of learning objectives, and a foundation of Instructional Design, one begins with Knowledge, applies it to develop Skill, and then receives rewards and recognition to reinforce the behavior (reinforcing Attitudes). To complete our Competence Development Ladder, and to reflect the role of Competence, we add its C to the classic ASK model: Thus our **CASK model**. Let us look more closely at each of the Competence Development Ladder components.

4.2 Learning About Knowledge

Knowledge is an important foundation. But by itself, *it accomplishes nothing*; it is Potential Energy, and just as we learned in Physics, *it must be applied* to accomplish anything. Once applied it turns to Kinetic Energy. Kinetic Energy can accomplish needed results.

Knowledge decays if it is not applied. We have tracked the half-life of unapplied or unused new learning at 6-10 weeks. Clearly, we need more than Knowledge, even with some of today's most effective Project Management training.

4.3 Moving to Skills

Skills move us higher up the ladder towards Project Management Competence. They come from **experience** with proper application of the Knowledge. While Skills degrade slower than Knowledge, they do require coaching, redirection and reinforcement to sustain and grow. Case-study or simulation- oriented workshops can begin to build Skills, but most Skill-building occurs in the real world, and on real projects. Skills are not Competence. We have farther to go, before we reach Competence.

4.4 Attitudes and Attributes

Note that we are moving from factors that are easy to measure (Knowledge), to those that are harder to measure well (Skill), to factors that are very difficult to measure (Attitudes). Attitudes affect your inclination to change behaviors. Without willingness or eagerness to apply them, Knowledge and Skill are wasted. Without rewards, Attitudes dissipate. This shows the importance of understanding your (and others') motivational needs.

What about Behavioral Attributes? These reflect your essential self, your personality. They involve Social Competences, and include thinking, behavior and leadership styles. They reflect willingness to learn, and to change. They are affected by your Value Systems, are harder to evaluate, and are, in our opinion, the basis for project success. We combine Attitudes and Behavioral Attributes as one crucial step in the PM Competence ladder.

4.5 And Then There Is Competence

Applying the preceding steps can lead to Project Manager Competence— however, for many there is still one missing ingredient: **Opportunity**. Some never get the opportunity to grow; others do, but are not successful. Some succeed, and understand why.

Thus given Opportunity, the right Experience (in A+S+K, Attitudes, Skills and Knowledge), repeated correctly, can lead to Competence. The result: Demonstrated project Performance.

5. DEVELOPING PM COMPETENCE

5.1 Recognizing and Developing Competence

Are people born Competent? How do you know where you currently stand, and where to apply the most effort? Going to yet another class and memorizing processes and formulae are woefully inadequate, not only for today's best certifications, but for improved Project Manager and stakeholder effectiveness!

5.2 Performing PM Competence Assessment

Our (ProjectExperts) first PM Competence Assessment was in 1983, an opportunity resulting from a Skills Needs Assessment that we had performed. Our client was a major electric utility that built and operated a Nuclear Power Plant. They asked if we did Competence Assessments: most of their Engineers had been assessed in their roles, but their Project Managers had not.

We worked with this client to set up a PM Competence Assessment Center, and thus extended our services portfolio from training and Skill Needs Assessment to PM Competence assessment and development. Our processes ranged from informal self-assessments, to more rigorous assessment by managers, to formal assessments that we performed, or certified others to perform, requiring evidence of Competence in PM Practitioner results.

As a consequence, we also adjusted our Project Management curriculum to support attainment of needed levels of Project Management competence in a selection of competence elements, for a range of target roles in a PM Progression Ladder. We provided this for other key Project Stakeholders as well.

5.3 Establishing Competence Baselines

A key to PM Competence Assessment is to establish the right baseline against which to perform assessment. Our early 1980's baseline was the result of a PM processes analysis, our definitions of key Project Roles, and the level of Competence needed for each role in each competence item. In the 1990's, we added Competences that included interpersonal skills and a General Management model to show additional disciplines one would master to achieve each needed PM Competence.

6. ENTER PM COMPMODEL

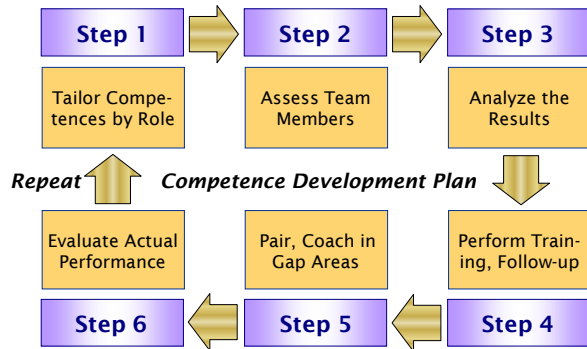
6.1 One Cannot Assess In a Vacuum

From the beginning it was clear that one cannot get the needed assessment results by merely determining the Competence of one Project Manager—you need to understand the performance of all significant participants in the project interactions and outcomes. And, because one person could fill multiple roles, each person needed to be assessed against all the Competence criteria of *all* of his or her roles. This complexity requires Software support.



6.2 As Scope Grows, Better Tools Are Needed

While we were able to perfect our processes (see the PM CompModel Process below), the information management demands were daunting. We struggled with spreadsheet-based tools that gave useful results—but required significant effort to apply. Finally, in the mid-1990's, we began using a database to analyze the information. That was a turning-point in making the entire process workable.



6.3 A Competence Progression Scale

Given our view of Competence as an experiential progression from Knowledge, through Skills, through Attitudes and Attributes, to Competence, we had a challenge: How does one determine the required level for each Project or Program role and for each criterion? Further, what scale helps reliably evaluate a person?

Our solution: to adapt Bloom's Taxonomy [4] (the 2000 update [5] is even more useful), because we are evaluating Knowledge at the initial levels anyway. Then at the upper levels, we adjust Bloom to reflect the progression up our Skills — Attitudes — Competence Ladder [6]. Bloom does distinguish Cognitive (Knowledge-based) from Adaptive (Attitudes and Behaviors) criteria. However, we have found that the Cognitive scale also often works with the Behavioral criteria.

Bloom's Taxonomy is an especially useful solution because it bridges the gap between Learning and Competence Development. It also provides a consistent mechanism for evaluating the level of a Learning Objective or Competence Criteria by classifying the verb and noun(s) in the statement.

6.4 Early Adapters

From the beginning, the PM CompModel process had great application in many Project and Program Management arenas. In addition, it was very useful in the Program Management Office. We have also adapted it for specialized uses, such as adding key roles for Information Technology projects, and adding the needed criteria to assess Customers, Business Analysts, Sponsors, Resource Managers and key PM stakeholders.

7. EVOLUTION OF ASAPM'S VERSION OF COMPMODEL

7.1 CompModel Mapped to Competence Baseline

As *asapm* (American Society for the Advancement of Project Management) developed its Competence-based certification program (based on IPMA's Four-Level Certification, or 4-L-C program), we saw the benefits of using PM CompModel as the training and development *pathfinder* that allows Project Managers and stakeholders to improve Project Management Competences, and for those who are so inclined, to self-assess to prepare for Competence-based certifications.

asapm had an advantage in selecting the right baseline against which to perform competence assessment. Clearly, a body of Knowledge falls short, because we are dealing with more than Knowledge. IPMA had established the IPMA Competence Baseline (ICB), which National Member Associations localize as National Competence Baselines [7] (NCB), each member association's foundation for Competence-based certification.

Because it covers the key areas of PM Competence, this ICB/NCB Standard is great for competence development in addition to certification. It also provides the needed foundation for Stakeholder Project Management competence assessment and development. Others have tried to emulate the ICB model by beginning with a body of knowledge taxonomy, and added the Behavioral Attributes and General Management elements that are usually missing in most generic PM approaches.

7.2 *asapm* PM CompModel Publicly Available

The *asapm* version of PM CompModel is available to members and colleagues on the *asapm* website [8]. It is organized according to the USA NCB Elements, and contains one Competence Criterion for each. It identifies target Competence ratings for each of the levels or roles in the 4-L-C system. Thus one can use the CompModel either to establish a personal, team, workgroup or enterprise Competence Development Plan, or to determine areas of focus as a pre-assessment to certification.

CompModel has target ratings for key stakeholder roles such as Projects Director, Senior Project Manager, Project Manager and Project Associate. It also includes rating targets for other important Project or Program stakeholders: Project Sponsor, Resource Manager, and Project Management Office Consultant. We include those roles because of the assertion above that you cannot assess and develop Competence in a vacuum—you must consider all the roles in the project context, or the results are meaningless.

asapm offers a custom PM CompModel *Pro* version to vendors in the Competence Enabler [9] program. Competence Enablers are PM Vendors who know the difference between Knowledge, Skills, Attitudes and Competence, and can help clients move from one level to the next. Vendors map their curriculum and coaching services to the PM CompModel criteria, so their clients can see which offerings fill their Competence gaps.

7.3 New Directions: Added Adaptations

At the 2006 World Congress in Shanghai, we gave PM CompModel to participants in the Young Crew workshop, to Congress Attendees, and offered it to other IPMA Member Affiliates. Our purpose: to provide a mechanism for Competence assessment and Competence Development Planning for improved individual development, for increased project success, and for certification readiness evaluation.

8. INTERVENTIONS: TRAINING AND COACHING

8.1 About the Actual Assessments: Out of Scope

This article does not cover our assessment processes; that is an entire topic by itself. However, the processes should be familiar to most readers. We do remind you that you need a level of assessment rigor that is appropriate for the intended use of the information. Those uses range from personal Competence Development Planning to organizational PM Competence improvement.

The range of the CompModel tool's support of assessment and analysis of the results is part of the download of the complimentary version at the websites. But what is important for us to cover is what you do with the assessment results.

8.2 The Role of Training, Coaching and Pairing



After an assessment, the next step is to establish a development plan that leverages strengths and fills the gaps. Training can be part of the interventions, but more than training is needed to continue the progression up the Competence Ladder. Other interventions usually include Coaching and Pairing.

Coaching requires a people who demonstrate the desired Competences. They must also have available time, and be in a position to recognize and reward progress. You may have no one who meets these requirements, and an external Competence coach may be needed. The person being coached also needs time and the opportunity to apply the new Skills and Competences.

Pairing is a fascinating intervention, given two peers with complementary strengths and gaps. The two do require available time to perform this co-coaching—it is not something they can do when they have nothing more important to accomplish. Again, Managers must be involved to recognize and reward progress, or the Pair may backslide on their new Competences.

We have seen challenging problems when the Competence ratings between Pair members are too great; it often works better when the gap between the two is minor.

8.3 Evaluate Actual Performance

If you can't measure it, you can't manage it. It is not enough to establish a Competence Development Plan, with measures of improvement. Even with demonstrated success in individual Competence criteria, the ultimate measure of Competence is in project performance. Thus, in the best Competence Interventions, project performance evaluation, focusing on the areas of gaps, but also related to all other Competence criteria are the needed measures of success. Does this sound like High effort? Perhaps, but is project performance important to you?

8.4 Repeat the Assessment Process

A first iteration of the PM CompModel process may require 1 to 2 years, depending on the number of persons being assessed, the extent of the gaps, and the maturity of management and your processes.

And given closure on the six steps of the PM CompModel process, what do you suppose you do? You repeat the process. In a second iteration, it makes sense to include higher (in the organization) and wider (across the organization) project stakeholders, as they become the new weakest link in your project success. Organizations that stay "on track" seldom require more than three iterations.

8.5 The Competent and Mature Enterprise

We suggest that you perform an assessment of PM Competence for an individual, team, workgroup or Enterprise. Then establish and execute a series of appropriate a Competence Development Plans. The result: increased PM effectiveness —something most Enterprise executives aspire to achieve.

And yet, we continue to see Enterprises that adopt Process Maturity initiatives with no consideration of their Competence in those processes. We are strong believers in PM process maturity efforts. But, we consistently find Process Maturity improvement without improving stakeholder Project Management Competence to be largely wasted effort. PM CompModel offers the framework to avoid that waste.

9. CONCLUSION

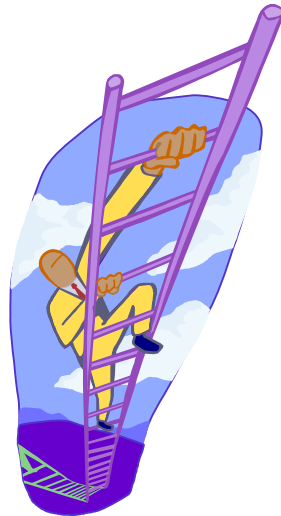
Understanding, Assessing, and Developing the PM Competence of all project stakeholders is the missing ingredient in many of today's "improvement" initiatives. PM Competence is not easy to gain, is difficult to measure, and competes with other options that promise to increase your competitive edge. And yet, every participant in every project clearly sees the consequence of project incompetence, whether on the part of the Project Manager, Resource Manager, Sponsor, Team Members, or other key stakeholders.

9.1 Summary

We have presented the background and purpose of our increasingly popular PM CompModel. We have described its use for assessment and development of Program and Project Managers, *plus* project staff and stakeholders in a clear Project Manager's Competence Development Ladder. We have shown a way to establish the linkages between classroom training, real-world application, rewards and behaviors, demonstrated Competence, and formal PM Certification programs.

We have shown how individuals can use PM CompModel to gain insight into their readiness to apply for advanced multi-level Competence-based certification programs. How project teams and Enterprises can use it to improve their project performance. We have shown one way to bridge the large gap between process improvement and project performance left by most PM Process Maturity models.

If you are involved with Project Management, and intend to improve your effectiveness, perhaps even to attempt to certify in advanced Competence-Based PM Certifications, we encourage you to download either the *asapm* version or the IPMA version the PM CompModel [8]. Install it, and learn how to apply it by assessing yourself. Then use it to help others you work with. Or, you may instead prefer to choose to get left behind at the training station.



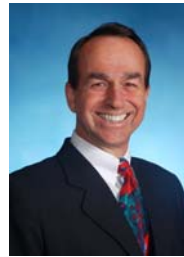
ACKNOWLEDGMENTS

Stacy Goff, Author, thanks the following persons for their ideas and comments that helped improve this paper:

Rose Johnston: www.content-matters.com
 Bill Duncan: www.pmpartners.com
 Dr. Lew Ireland, President, *asapm*

This article was presented as a paper at IPMA's 20th World Congress in Shanghai, China, in October 2006. It supports a 1-day workshop that helps individuals who wish to improve their own PM Competence, consultancies who use it to improve their clients' PM Competence, other Project Management associations, or for in-house use by Enterprises that wish to improve their project performance.

ABOUT THE AUTHOR



STACY A. GOFF is President of ProjectExperts®, a Project Management consulting, tools and training company. A Project Management practitioner since 1970 and consultant since 1982, his mission is to help improve Enterprise or workgroup project management competence, productivity, timeliness and effectiveness.

An insightful consultant and dynamic speaker, Mr. Goff provides project consulting services and presents workshops of great interest to executives, managers, project managers and leaders, technical staff, and individual contributors. His audiences include Information Technology, Aerospace and Defense, Government, Finance, Insurance, large and small Consultancies, Manufacturing and Pharmaceutical organizations.

His Project Management tools and methods have been used by enterprises and consultancies on five continents. THE Guide and MinProj®, Information Technology and Universal PM Methodologies respectively, have supported project success for tens of thousands. His KnowRisk® and Quest For Better Estimates® tools support risk management and estimating in an easy-to-use format. His Project Management Competence Model is the centerpiece for the Project Oriented Enterprise's professional development program.

Mr. Goff brings a results-oriented approach to Project Management training, coaching and consulting. His passion for strategic fit and excitement for results translate to high-quality, on-time, in budget project performance. In his workshops, coaching or consulting, he combines his knowledge of project management with sensitivity for the human aspects of projects. **The result:** Measurably increased project success.

Email: stacy@projectexperts.com

Website: www.projectexperts.com

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