Improving PM Performance in the Classroom and Beyond:
A Framework for Developing PM Talent in the Contextual and Behavioral Competences
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1. Introduction

Purpose: To explore a process for assessing PM practitioner development strengths and gaps using the ICB (IPMA Competence Baseline) Contextual and Behavioral Competences, and then to discuss a framework for moving learners from classroom knowledge to demonstrated competence and workplace performance. The ICB is the foundation for IPMA's 4-L-C (Four Level Certification) program of advanced certifications of Program and Project Manager Competence. *asapm's* USA-NCB, the National Competence Baseline for Program and Project Managers, is a tailored version of ICB used for USA certifications.

Audience: Project, Portfolio, and Program Managers (hereafter abbreviated PM), Learning Managers, and Functional Managers of project participants. It also includes those who would assess and certify the competences of project-engaged persons. All from the perspective of the PM Learning practitioner.

Method: This paper describes the use of ICB as a useful framework for PM Competence Assessment, and in moving learners to improved PM Performance. The ICB consists of three groups of Competence Elements, Contextual, Technical and Behavioral. The Contextual and Behavioral Competences can be especially challenging both to develop and to evaluate, compared to the Technical Competences, and often require different Learning Interventions. This paper also explores ways to maximize the benefits of PM learning methods and interventions, with some insights into preparing assessors in the competences.

Note: This paper was presented at the February, 2009 IPMA Expert Seminar in Zurich, Switzerland, and is included in the proceedings of that event. That Seminar's focus was on developing and assessing the Contextual and Behavioral Competences of the ICB. We reproduce the paper here, with permission, with the intent of reaching a broader audience, creating higher visibility for the Expert Seminar concept and series, and providing insight into the broader issues involved with assessing and developing PM competence.

2. Preparing to Improve PM Competence

Understanding The Purpose: Why are you improving PM Competence? Is it to improve PM Performance? For advanced certifications? For other reasons? Understanding the answer to this question is crucial, because the right approach will vary significantly based on your response. For example, if your primary goal is to improve PM Performance, you should expand your audience beyond the practitioners you may be focusing upon. Often, *the weakest link* in your list of project stakeholders will limit the performance of even the most-competent PM Practitioner.

In this paper we assume that improved PM Performance is at least part of your purpose; readers can also apply the ideas to advanced PM Certifications. PM Competence is one key input to PM Performance, and while PM Competence may begin in the classroom, one develops and perfects it in the workplace. This is especially true for the Contextual and Behavioral Competences. For both Managers and PM Practitioners who intend to improve these PM Competences, the best results don't come from just sending someone off to class, then expecting competence or performance in these elements to magically appear.

Who Needs Development? Targeting the Weakest Links: While it is clear that Project Managers and Team Members are candidates for competence development, most organizations are surprised to discover that other interested parties also need improvement. In fact, 25 years of PM Performance Improvement in government, industry and consultancies, have shown that consistently, the greatest organizational im-

provement usually comes from improving the PM Competences of Functional Managers, Resource Managers, and Project Sponsors; and sometimes even Executives. Include these roles in your planning if you truly intend to improve PM Performance.

Assessing Current Competence Levels: Many different PM Competence Models exist; this paper refers to PM CompModel™, developed by ProjectExperts, and used by *asapm* (a free demo version is available on the asapm.org website). Most models serve the same needs: To identify the greatest PM competence gaps against a known and trusted standard, and then to identify the best use of Learning and Development funds to close those gaps. PM CompModel is aligned with the *asapm* NCB (which vastly improved its usefulness, compared to an earlier alignment with a body of knowledge); it has one competence criterion statement for each element. A more rigorous assessment would include 3-5 criteria for each of 48 elements; but experience shows that participant enthusiasm and information integrity begins to suffer after 50-80 assessment responses. We assess a range of roles in addition to those in the 4-L-C Certification schema:

- Project Sponsor
- Projects Director or Program Manager (IPMA Level-A®)
- Resource Manager
- PMO Manager
- Senior Project Manager (IPMA Level-B®)
- Project Manager (IPMA Level-C®)
- Project Associate, for team members, or brilliant for PM-related professionals (IPMA Level-D®)

The result is a prioritized list of the top Competence Criterion gaps for each practitioner in the target audience. See a sample output of the process in Figure 1, below.

PM CompModel: Competence Gaps

Member Name   Candidate, Learner

Gap	Need	Comp	Imp	Comp #	Competence
2	4	2	1	25	Pays attention to stressful situations and relieves tens
2	4	2	1	13	Estimates activity and project costs, including labor (e
2	4	2	1	4	Engages stakeholders in identifying risks and risk res
2	4	2	1	21	Demonstrates strong self-knowledge, while engaging c
2	4	2	1	14	Develops vendor solicitations: Requests for Information
2	4	2	1	22	Actively manages the buy-in of stakeholders or interested
1	4	3	1	1	Implements project success criteria that reflect the prioritize
1	4	3	1	23	Controls emotions, and demonstrates a high frustration thre
1	4	3	1	10	Assures clear, complete, and agreed-upon statements of
1	4	3	1	6	Establishes a project organization that is appropriate for
1	4	3	1	12	Identifies or provides (as appropriate for the role) need
1	4	3	1	24	Demonstrates influence and authority.
18	Total Gap				Summary for Candidate, Learner (12 Competences)

Figure 1: Sample Competence Gaps, from PM CompModel; ProjectExperts

The terms and scoring scale used in the example above require explanation. The *Need* reflects the target competence of the roles for each criterion. *Comp* is an assessment of the current competence score. The scale of 1-5 (zero is also possible) is based on our extension of an updated Bloom's Taxonomy (2001[i]).

As shown at right, the levels begin with basic Knowledge; successively higher levels reflect Skill, Attitudes and Behavioral Attributes, Competence, and Performance. Although the levels are not truly linear, but semi-independent variables, turning Knowledge-to-Performance into a linear scale of progression works well. A free demo version of PM CompModel is available at the asapm.org website; to learn more about its development and use, read our paper from the 2006 IPMA World Congress in China [ii].

3. Planning a Range of Development Interventions

Establishing Baselines and Measurements: It is one thing to know your greatest competence gaps, or opportunities for improvements; it is another to be able to verify that your interventions resulted in the intended improve-ments. This is especially true with the Behavioral and Contextual competences because one cannot easily isolate any improvement from the negative impacts of an environment that hinders effectiveness. So be-fore beginning to identify interventions, decide how you will measure your results. Establishing those baselines and measurements are beyond the scope of this paper, but essential if you intend to succeed in improving performance (or proving you did!). Especially important is being able to show Executives and Funding Sources that you are achieving promised results. Example: a measure for *Competence Develop-ment for Certification* could be a unit count of achieved Certifications; *or* the percent success rate.

Targeting Curricula to Requirements: Given a list of the top-priority gaps for competence development, the next step is to determine the range of interventions needed to fill the gaps. Some interventions may in-clude foundational knowledge that is best-developed using classroom or distance learning. However, class-room learning is primarily useful in moving from Level *zero* to 1 or possibly 2 on our scale. It will rarely have any impact in moving from Level 2 to Level 4. Why this limitation of classroom-based learning's ef-fectiveness? Because one must manage the interaction between application on the job and the rewards and reinforcement received from that application, to move the practitioner to competence and beyond. Some classes, those that involve scenarios, simulations, extensive teamwork, exercises and case studies *using real projects*, can contribute to Level 2, Skill. Class facilitators whose style inspires participants to apply the learning back on the job; can also help with the move up the competence ladder.

Skills Needs Assessment Process: Where training can contribute, matching availa-ble training to the practitioners' needs is the next step. For example, PM CompMo-del lists which modules in ProjectExperts' Modular Project Management® curricu-lum offer the foundation knowledge for each element/criterion. This makes the next step easy: for each class, you plan and evaluate the more-detailed Learning Objec-tives for practitioner needs, current level of performance, and actual outcomes after the class. For that purpose, ProjectExperts uses a complementary tool (developed and used by ProjectExperts) SNAP, Skills Needs Assessment Process[iii].

SNAP offers practitioners, Managers and learning facilitators an assessment process to help determine pre-class strengths and weaknesses, needed class timings, and post-course actions needed to continue im-provement. The difference between PM CompModel and SNAP is the breadth of coverage and level of de-tail; SNAP helps class-specific planning; CompModel helps identify the right classes needed to fill top-priority gaps, and helps to prioritize them. The two tools have served in tandem for over 25 years. Note that others have their preferred tools; yet the pairing of PM CompModel and SNAP has worked well for ProjectExperts.

The Role of Classroom, Web-based, or Other Learning: If foundation Knowledge is part of the Competence Development Plan, classes or workshops have their advantages. One advantage is that classes require some dedicated effort against a set of well-defined Learning Objectives; otherwise, some practitioners in today's workforce will never have the time to spend a day or a week in developing foundation knowledge. But other options, including Web-based training, Blended Learning (web-based background-setting and content presentation, in combination with facilitator-led discussion), and self-study, may also be appropriate—especially for those with good time management skills. Many readers of this paper have earned significant amounts of learning from self-study; although some call it research.

Assuring Classroom Follow-through: One of the greatest challenges in learning is when the practitioner returns from class to a desk filled with work that accumulated while they were in class. In the two weeks it takes for them to catch up, their learning begins to dissipate. An assertion: the half-life of most classroom training is six weeks, unless it is actually applied. The follow-up actions of SNAP and PM CompModel can help assure benefit realization, because they engage Managers in post-class evaluation and re-planning. Otherwise, the learning may not "stick", and the intended results are never maximized.

4. Unique Aspects of the Contextual Competences

What about the Contextual and Behavioral Competences? Is development in those areas the same as for the Technical Competences? Well, yes and no. One of the greatest strengths of the advanced IPMA/*asapm* certification programs is that they assess experience and competence—in addition to foundation knowledge. Certainly most practitioners can gain enough knowledge to pass an exam—assuming that you have the right study guide. But for the very reasons that these competences are the subject of this Expert Seminar, moving up the Performance Competence ladder can be more difficult for the Contextual and Behavioral Competences. We begin by handling each Competence Group separately, because the interventions vary. We later tie the Competences back together in the topic of Competence Development Beyond the Classroom.

Contextual Competence Elements: Merely Knowing, or Actually Experiencing? Our opinion is that for each Contextual Competence, *you should actually gain experience* in that area, as it relates to project or program efforts. Looking at the elements in the list at right, in how many Business Areas have you *actually practiced during your career?* Note that *asapm's* NCB Elements differ slightly in nature and spelling.

While it is true that the first 4-5 elements on the list may have direct involvement by many PM roles, the further one proceeds down the list of elements, the less-likely a practitioner has actually practiced in the area. It does help if some of your projects have engaged some of the Contextual areas, but the difference between *visiting* a Context Competence element and *actually living there* is like the difference between a first date and a marriage. In that first date, you rarely get to know all you need to know about the subject.

ICB Contextual Elements

- Project orientation
- Programme orientation
- Portfolio orientation
- Project, program & portfolio implementation
- Permanent organisation
- Business processes
- Systems, products & technology
- Personnel management
- Health, security, safety & environment
- Finance
- Legal

If one reviews the ICB *Topics addressed* and *Possible process steps* for these elements, it becomes quickly clear they are from the project/program point of view, rather than from the point of view of the Permanent Organization. And yet, one purpose of the elements' existence in the ICB is to improve project interaction with its context, the Permanent Organization. An initiative for *asapm* is to improve the assessment criteria by working with Professional Associations' expert practitioners in each of the Context areas to see what *they believe* are the competences PMs should demonstrate, and at what level of performance.

Contextual Competence Heresy: If you have no work experience in a Contextual area, you are assuredly not competent in it. Further, you will have difficulty assessing the competence of others in that area. The author would consider himself weak in two of the elements in the Contextual Elements list above: Health, security, safety & environment, and Legal; for all others, he has actually spent time performing or managing in that domain. This is one reason why a popular Talent Management approach is *rotation*, giving fast-track Managers the opportunity to experience different facets of their Enterprise as they progress up the ladder. Yet, PMs, as scarce and precious resources in project-oriented enterprises, seldom see intentional rotation as part of their career planning. *This situation needs to change if organizations really want to improve PM Performance.*

Here are several observations from this set of Contextual Competence assertions:

1. *asapm* will continue to work with *expert practitioners* in the Contextual Competences to develop the competence criteria and levels of performance that a certificant must demonstrate, to be competent.

2. One must *work there*, not just *work with* some of the Contextual areas, to be competent in them. And, we suggest, one also needs that experience to most-accurately assess competence in them.

3. An additional comment those observations prompt: Some Competence experts, such as Lynn Crawford, prefer use of *outcome* measures, such as Performance, over input measures, such as knowledge and experience, in effective assessment. We have adopted this approach for *asapm* certification.

5. Unique Aspects of the Behavioral Competences

Behavioral Competences and Practitioner Learning: Several IPMA Member Associations, in adapting ICB to their own national NCB, have rearranged elements in the Competence groups. For example, several have placed Communications in the Behavioral group, rather than the Technical group. This approach makes a lot of sense. Communications is ***far more*** than a *Process Steps & Topics*-oriented Technical competence. As we state elsewhere[iv], *Communication is the most universally applicable competence in the IPMA Competence Baseline (ICB), because it touches or affects the usefulness of all other competences.*

Communication is more than a Technical Competence, because in learning and development, both the opportunity and complexity of acquiring Communication Competences are more like those of the Behavioral elements. Indeed, *for discussion purposes*, we'll claim that the *Super-Two* elements, Communication and Leadership are the *primary Behavioral competences*, having the greatest amount of impact on project success. All the rest are personal attributes or sub-components of the *Super-Two*.

Don't agree? Consider what your organization values. Scan down the list at right of the Behavioral elements. Clearly, many organizations would consider investing two weeks of assessment, training and coaching in improved Leadership. For which of the others would they be willing to spend one week? How about two days?

For an organization to invest in improved performance in any Behavioral element, they must attach tangible value to it. Thus either we must lead society to appreciate this range of competences, or we must consider fine-tuning the selection of Behavioral competences to the ones organizations do value (or a combination of the actions). Otherwise, PMs will not be rewarded for developing these competences, breaking the linkage between learning and needed performance.

ICB Behavioral Elements

- Leadership
- Engagement & motivation
- Self-control
- Assertiveness
- Relaxation
- Openness
- Creativity
- Results orientation
- Efficiency
- Consultation
- Negotiation
- Conflict & crisis
- Reliability
- Values appreciation
- Ethics

There may be other Behavioral Elements to consider. For example, Emotional Intelligence is more than just a popular topic; it is emerging as a foundation for understanding everything from behavioral styles to cultural differences and change acceptance. Of course, the "soft stuff" has always been the toughest sell in the PM training world, yet ironically, has (in this author's opinion) the greatest impact on project success.

What if Skinner[v] was wrong? What if one cannot change Behavior? For now, in the areas Learning and Development, let's assume that at least we can help change *indications* of Behavior. In workshop development, an Instructional Designer turns each Behavioral element's Adequate Behaviors into Learning Objectives. They then design curricula and interventions that move through the progression, from Knowledge, to Skill, Attitudes, and Competence toward those objectives. With 15 Behavioral competences, some having 10-15 Learning Objectives, this is a significant effort. But without either adequate Learning Objectives or clear Performance Criteria, PM classes on the Behavioral Elements might as well just show movies and hope participants adopt more acceptable Behaviors.

To recap this Behavioral elements topic,

- ICB's inclusion of the Behavioral competences is a key and clear differentiator in advanced PM Certifications. And, that inclusion raises challenges in developing and assessing those competences.
- The components of the Behavioral group of elements will continue to improve in future ICB releases.
- Clearer learning objectives or performance criteria should be established rather than each instructional designer having to create their own.
- The results should be shared and consistently used in PM assessments in all Nations and cultures.

The reason for the recap above is the topic moves from the current ICB support structure and approaches to practices in the land of PM training and development.

6. Developing Behavioral Competences

In developing PM Performance, we (ProjectExperts) evaluate personal style preferences. We use a simple model to illustrate, and help others understand, their style preferences. Shown at right, the model moves from aspects mostly-known by the individual, such as Core Values, to aspects best-evaluated by others, such as Leadership Style. For each layer in the diagram, we use a range of assessment instruments that help give practitioners insights to their preferred styles (note that others have their own preferred model for this purpose). Using this model, practitioners know their own style preferences, they flourish with their strengths, and they learn to substitute, grow, or compensate for their weaknesses. The model also provides a foundation for learning and development.

A Model and Scheme for Development: This model is **not** for certification assessment, but it can be a very effective framework for assessing performance improvement needs. There are *knowing* objectives, *practice* objectives, and *demonstrated performances* in each area of the model. Classroom training, especially sessions that include role-playing and teamwork exercises, allow practitioners to explore different "scripts" or patterns in their interactions with others. In applications ranging from facilitating large groups to exploring creativity, to influencing others, to conflict management, the classroom can provide a learning foundation that moves beyond test responses to initial Skill-building. Many PM consultancies and training firms offer foundation training in Behavioral Skill areas; some also offer coaching and ongoing feedback or development. Still, the best coaches for ongoing improvement are those who are immediately engaged with each practitioner on a day-to-day basis.

360 Degree Assessments and other Tools: A class or workshop is a moment in time; while some Behaviors participants demonstrate in the classroom are mirrors of their actions in the workplace, it is just not the same as the real world (although more for some than others). Sometimes people in class are on their best behavior. Sometimes, they are playing other roles, because a classroom or other non-work setting is a safe place to learn to stretch your style to practice new strengths, that others will not tolerate in the workplace. To gain deeper insights of the true person, in addition to the styles instruments mentioned earlier, 360 Degree assessments are very useful. They must have the right questions, provided to the right people around each participant, with the right amount of privacy, so recriminations are less-common. The results can be very revealing, especially for persons who have a small Johari window[vi].

Other useful tools include advanced Leadership Styles instruments[vii] that not only identify your strengths and weaknesses along 24 (or so) factors, but also compare them to the strengths and weaknesses of Executives and recognized leaders in your Enterprise. This is crucial information, because every organization has a culture that is based on the style of its Executives (plus to some extent, your industry). This is also a reason why certification is not a guarantee of success outside your company.

7. Competence Development Beyond the Classroom

As asserted above, the real learning in Performance Competence Development occurs outside the classroom. Given an assessment of gaps you will close to improve performance or to complete certification, the next step is building a Competence Development Plan (CDP). This plan typically spans from six to 18 months. Foundation learning may be one part; the rest of the plan includes the interventions and support needed to move up the Performance Competence ladder. A typical plan includes:

- For each Competence criterion, the Need, current Competence rating, the gap, and the relative importance or priority of this criterion for improved performance.
- For the top-priority criteria, one or more interventions, including for each:
  - Intervention description (e.g. Provide estimating opportunity).
  - The category of the intervention (training, coaching, pairing, mentoring, etc.).
  - Planned start date, completion date.
  - Target competence for this intervention.
  - Resources or support needed, including funding, and who will be involved.

This Competence Development Plan is a project with a living plan, that must be revisited and updated as the practitioner makes progress. Some interventions may be less-effective than expected; if so, re-planning is essential, possibly adding new interventions. Over the span of the CDP, practitioner responsibilities may change, possibly causing changes in the priorities for development. Managers serving as mentors may lose interest. If this is a project; it should be managed like one, even when it is faced with challenges: fortunately we know how to manage projects—if we treat this like one. Who is the Sponsor? Who measures benefits? Who are the stakeholders? Who are the candidates to perform additional coaching and mentoring? How can we engage them productively? What are the Risks, both threats and opportunities? How do we manage them?

Increasing the Effectiveness of Pairing, Coaching, and Mentoring: A useful intervention is to leverage existing talent through coaching to improve competence and close top-priority gaps. One outcome of competence assessment identifies the practitioners who *exceed* the levels needed for their project roles. The risk: those competences, if not recognized and applied, will dissipate over time. Assign these practitioners as *Competence Coaches*, and apply them in Pairing or Coaching. Peer Pairing is a strategy where two peers with complementary gaps and strengths work together to help close the gaps of each.

In Coaching, one who has mastered a competence area coaches one or more persons who have not. An important aspect of pairing and coaching is to try not to bridge too large a span between the practitioners. A Level 4 should not coach a Level 1… or even a 2. Use Pairing and Coaching for Level 1 to 2 and Level 3 to 4 interventions. Staffing the interventions is not just based on gaps and strengths. Managers who can provide recognition and rewards are great for the move from Level 2 to Level 3. Finally, all practitioners must have time allocated for the CDP effort; it cannot be done in "spare time", another reason for Managerial involvement.

8. Closure

Competence Development is a never-ending quest. IPMA's ICB and the derivative Member Association NCBs, such as the USA's National Competence Baseline, present a significantly better foundation for Competence assessment and development than other documents, especially those that are just knowledge-based. But competence development does not come from merely sending people to training. It is a project, and needs to be managed and measured like one, with opportunity for application of learning on the job, coaching, mentoring, pairing, and, don't forget, rewards. But the scope widens, if you are to achieve PM Performance: Even when your stellar PM Talent is highly competent, the competence and performance of the rest of your project stakeholders has more impact on your results than does your PM Talent.

After successful assessment, then planning and careful execution of your Competence Development Plan, *you are still not done*. Experience has shown that upon completion of the CDP, a fresh re-assessment *always* identifies new opportunities for continued performance improvement. And don't forget: Evaluating and measuring the results of completed actions is a prerequisite to justifying the funding needed for another round of improvement.

In some organizations, typically those that depend on projects for their livelihood, Performance Competence Development is just one part of a series of initiatives. Together with improved processes and tools, better and clearer communication of project and program information, faster action on open items and issues, and savvy rewards and recognition systems, you can double, 4x, or 10x measured PM Performance. Could your organization benefit from that level of PM performance improvement?

9. About the Author

STACY A. GOFF, *the PM Per4mance™ Coach*, is President of ProjectExperts®, a Program and Project Management consulting, methods, tools and Learning company. A co-founder and President of *asapm*, Stacy is the USA representative to IPMA, the International Project Management Association. He has also contributed to the success of Project Management Institute since 1983.

A Project Management practitioner since 1970 and PM consultant since 1982, he improves Enterprise or project team PM competence, efficiency, and Performance. Mr. Goff speaks at industry events, offers coaching and consulting services, and presents workshops of great interest to Executives, Managers, Project Managers and leaders, technical staff, and individual contributors.

His Project Management tools and methods are used by Government Agencies, Enterprises and Consultancies on six continents. He combines his PM Process insights with wide-ranging experience in projects and programs, and with sensitivity for the human aspects of projects. The result: Measurably increased *PM Per4mance™*: Portfolio, Program, and Project Performance.

10. About the Expert Seminars

As noted in the Introduction, this paper is re-published with the permission of IPMA; it was presented and published as part of the 2009 Expert Seminar proceedings in Zurich, in February. It is rare for this type of permission to be granted, but thanks to Dr. Hans Knopfel, we were given permission to publish. It is modified slightly for this audience, and shortened to not exceed *asapm's* publishing guidelines by too much.

Hosted by the Swiss Project Management Association, the Swiss Member Affiliate of IPMA, the Expert Seminar Series is the must-attend exchange for all PM practitioners who wish to help forge the future of our practice. Held in February in Zurich (no colder than Colorado, and with better chocolate), the 2009 Expert Seminar topic centered upon developing and assessing the Contextual and Behavioral competences. Different streams explored aspects of the topic in primary presentations, then worked in small groups to explore details, then again presented their results to the main assembly.

The 2008 session dealt with the topic of Ethics, and both individuals and organizations (and professional societies as well!) have a lot to learn from those proceedings. They are available through IPMA, and will be integrated into and reflected in the participants' offerings as part of their benefits for participation.

The 2010 session, scheduled for February 18-19 in Zurich, has as the topic: **Survival and Sustainability as Challenges for Projects**. This is a timely and insightful topic for our times. Abstracts are due October 19, 2009, and interested persons should check the announcement and Streams at: http://www.ipma-expertseminar.com/2010/default.aspx. We strongly encourage participation of our members and friends!

11. References

[i] Anderson, Lorin W. and Krathwohl, David R. *A Taxonomy For Learning, Teaching and Assessing*. Longman, 2001. Blooms Taxonomy,1956, was a pillar for evaluating Learning Objectives for child learning. The 2001 version of Blooms Taxonomy (by an intern on the original work) is stellar for all levels, including adult learning.

[ii] See more about PM CompModel in the author's 2006 IPMA World Congress, Shanghai, China paper on PM Competence at: www.projectexperts.com/articles/PMCompetence.pdf

[iii] The ProjectExperts' Skills Needs Assessment Process produces pre-and post-course evaluation, setting the stage for Kirkpatrick-style learning effectiveness measurement, together with a list of areas needing post-course attention. See an overview at www.projectexperts.com/services/SNAP_MPM.pdf

[iv] Dr. Florian Doerrenberg and the author collaborated on the 59-page Communications chapter in the new version of Germany's Kompetenzbasiertes Projektmanagement (PM3), published first Quarter, 2009.

[v] B.F. Skinner was a Psychology pioneer in who led the change in belief that behavior can be modified. He also had significant impact in understanding how people learn.

[vi] The Johari Window (Luft & Ingham) reflects what you think you know about yourself, and what others know. Some people have great misconceptions about how others see them, which damages their performance. See Wikipedia.com for a summary reference.

[vii] The Leadership Effectiveness Analysis tool, from the 1980s on, has produced stellar results, but it is more often used for Executives than for Program and Project Managers. It is a useful and relevant tool for Leadership Development. To learn more, contact Management Research Group, in Portland Maine.