Replacing Risk with Knowledge to Deliver Better Acquisition Outcomes

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T he acquisition workforce isn't what it used to be. Challenges in program execution remain and likely always will, and the Congress and Department of Defense are taking steps to reform the defense acquisition system ... again. According to a May 2010 Government Accountability Office report (GAO Report 1-522):

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Congress and DOD have taken major steps toward reforming the defense acquisition system that may increase the likelihood weapon programs succeed in meeting their planned cost and schedule objectives. Many of these steps are consistent with key elements in our case study analysis. In particular, the new DOD policy and legislative provisions place greater emphasis on front-end planning and establishing sound business cases for starting programs. For example, the provisions strengthen systems engineering and cost estimating, and require early milestone reviews, prototyping, and preliminary designs. They are intended to enable programs to refine a weapon system concept and make cost, schedule, and performance trade-offs before significant commitments are made. Fundamentally, the provisions should help programs replace risk with knowledge, and set up more executable programs.

The GAO report referenced is about planning and execution of core acquisition processes and the training that supports that execution. An underlying theme in the report is the need for and the ability of the acquisition leadership and workforce to leverage critical and relevant knowledge about acquisition more effectively—in other words, to capture and document project planning and execution lessons and best practices for access and reuse. This ability, or lack of it, is a fundamental challenge that consistently marginalizes the more successful planning and execution of our programs.

More Challenges, More Complexity
Acquisition and the environment in which we do acquisition are necessarily complex. Add to that, increasing issues in process execution and the quality of the execution; and fewer acquisition professionals who are adequately trained, thus increasing the risk in our ability to more successfully plan and manage to expected program outcomes. Recent hire authority for thousands of acquisition positions now and over the next few years presents an additional training (skill) and experience (competency) challenge in the current complex acquisition environment. Consider the following issues as well.

• Acquisition programs and activities can be, and usually are, diverse and organizationally dispersed. They may be supported by a centralized acquisition staff with functional acquisition support directorates that have been depleted through attrition or who lack the tools, training, and experience.

• All acquisition is not the same. Many acquisition processes require an adaptation of core processes, execution, and training that must be integrated into the management of the programs on a continuing and real-time basis.
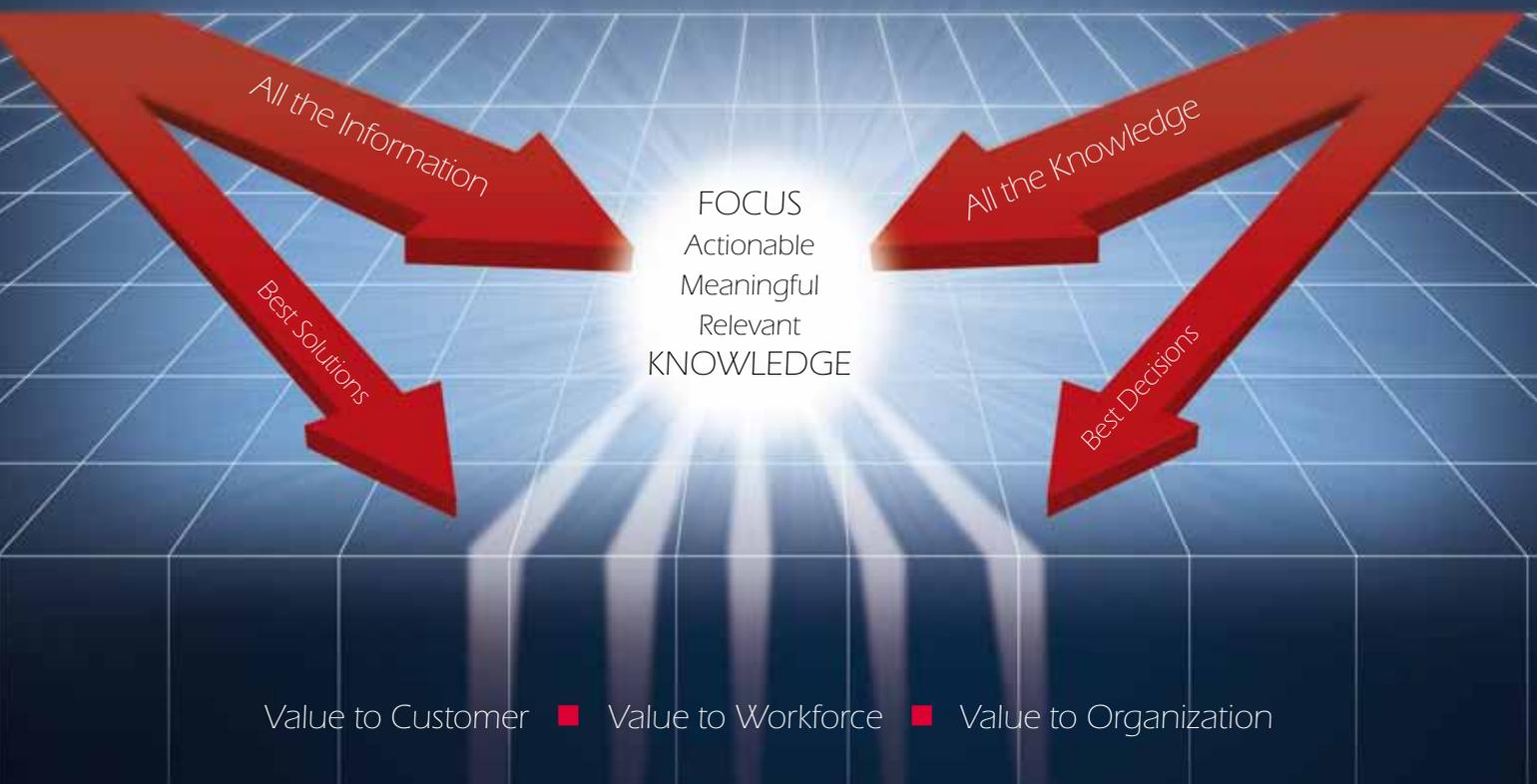
• The training and continued growth of the core skills necessary for program planning, execution, and management within the acquisition workforce could be more effective. The gradual decrease in functional expertise and program management discipline over the past decade has resulted in greater difficulty in controlling desired acquisition outcomes.

• Existing training needs to focus not only on concept and theory, but also must be tailored to application and implementing practices in the specific organization's context.

• Learning lessons focused on the execution of core acquisition processes across an organization could significantly improve acquisition outcomes. Many acquisition organizations do not currently demonstrate a collective ability to learn lessons or to transfer better practices and then to reinvest the learning into acquisition planning, program planning, and program execution processes.

• Learning from the execution of core processes must be consistently leveraged so that improvement in a core process also simultaneously changes training on the process. Any change in process requires that the training reflect how the process, once improved or changed, is being executed so that the next graduates will be trained based on the most current field experience.

From a performing and learning perspective, these issues will continue to present program execution risk because across the acquisition environment we generally lack a consistent and disciplined process for capturing, adapting, transferring, and reusing the acquisition workforce's critical and relevant knowledge of what it does as an integrated part of the way it does business. The result: a lost opportunity to quickly make sense out of the lessons so they can be characterized for reuse in a way that makes them readily accessible and easily searchable by others in the organization or across the acquisition domain.

Look at the issues in a slightly different way by asking yourself the following questions:

How often does my acquisition organization plan the time to (1) reflect as a team (not a lessons-learned checklist or report) on our program or core acquisition process execution; then (2) take the time to make sense out of the experience and insight that is captured; and (3) take the time to make immediate changes in how we execute the program or process based on this current experience and insight?

How often does my organization then integrate those learnings into relevant and context-based training that supports new professionals in the program or process so that when the training is complete, the graduates have been trained

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The Capture, Retention, and Reuse of Knowledge

in the way that the work is actually being done in my organization?

Knowledge and Its Capture, Retention, and Reuse

Let's talk about one view of what knowledge is. Consider that knowledge includes all the information, experience, and insight that exist across the organization. We want to leverage and focus that knowledge, in context, not only to improve individual, team, and organization performance; but also to deliver value to customers and the workforce, and to drive the right mission outcomes. That enables the acquisition workforce to make the best acquisition decisions and develop the best acquisition solutions.

What is "critical knowledge?" It is knowledge (information + experience) that is necessary and fundamental to achieving the desired mission outcome. Critical knowledge, in an acquisition context, is not only knowledge that is codified (explicit), but also knowledge that resides in people's heads—the experience and insight (tacit), that enable the acquisition workforce to apply the core acquisition processes effectively and efficiently to achieve the desired mission outcomes.

Any discussion of critical knowledge must move beyond what is written down to encompass also what is understood, the "know-what "and "know-how." That means it can't initially be used by anyone other than the individual who possesses it. Critical but not reusable = ineffective and inefficient.

It is comparatively easy to leverage information (visible, codified) that is critical and relevant; it is much harder to get at and leverage the experience and insight (hidden, personal) in someone's head that is also critical.

In many organizations, much time and many resources are focused on the information side of knowledge alone. That is where enabling technology and applications can provide the necessary mechanism to find and access the codified knowledge. But technology alone cannot capture what's in a person's head, make sense out of it, and then characterize it, in the right context, for reuse. It becomes really critical and a huge challenge for any organization because that type of knowledge is necessarily timely and perishable, especially with the regular turnover in the acquisition workforce. Without a consistent and disciplined process for capturing, retaining, and transferring this knowledge, we lose the ability to reuse it, along with much of the investment in training, experience, and insight that takes so long to develop. There's a real cost, and it's high!

All Source Acquisition: Part of the Solution

One answer to the knowledge capture, retention, and reuse challenges facing acquisition organizations is the concept I call "all source acquisition." All source acquisition is grounded in the disciplined adoption of a systematic framework to capture, adapt, transfer, and reuse an acquisition organization's critical and relevant knowledge (information + experience) to measurably improve operational performance. It also enables a working capability for an acquisition organization (e.g., system program office, program manage-

ment, contracting, program control, etc.) to think creatively, aggressively collaborate, consider different perspectives, and challenge assumptions as a part of the way it works.

All source acquisition can enable an acquisition workforce to achieve greater value in mission outcomes through leveraging their individual and collective knowledge in ongoing operations: to immediately improve mission performance; to improve both the leadership's and the workforce's ability to learn from past challenges and successes in program decision making and mission execution; to align process, execution, and training so that the most current experience and expertise is immediately integrated into core process execution and the training to support these processes; to create long-term value from knowledge held not only by the acquisition workforce and its leadership, but also by those served by that workforce and its leadership; and to mitigate and manage the risk of knowledge loss and retention as a result of the increasing challenges of workforce turnover and attrition.

Acquisition organizations (or any organization for that matter) that choose to make performing and learning part of the way they operate will be able to both share and access for reuse the necessary knowledge (information + experience), whether online or from people, when they need it for the intended purpose. They are learning organizations and possess critical attributes for success (see the sidebar).

The Acquisition Center of Excellence
All source acquisition can be most successful through (1) evolving an acquisition center of excellence (ACE) as a trusted source for innovative acquisition and performance

solutions, and (2) integrating the ACE with a linked training or university capability or organization. Driving knowledge at the point of execution, the ACE would collaborate with the operational areas to provide fit-for-purpose acquisition tools and techniques, competent and relevant acquisition expertise, the right training, and practice-based knowledge management to assess, guide, and implement acquisition knowledge-based improvements that directly support an acquisition organization's mission outcomes. The ACE concept envisions both a physical and a virtual ACE presence enabling 24-hour, 365-day support.

Demonstrating the value of an ACE can be difficult because operational components of organizations may not recognize how the ACE can help to improve the quality of mission outcomes, particularly if the ACE is not playing a central supporting and enabling role in leveraging acquisition knowledge. The value of the ACE is derived from working with line organizations to help them capture, adapt, transfer, and reuse relevant and critical knowledge in the areas of policy, core processes, training, lessons learned, and better practice transfer. For example, the ACE can enable the line organizations to stay ahead of acquisition policy changes so that their implementing processes and practices can be quickly and easily adapted consistent with any new policy implementation. The result can be an ACE that provides specific, relevant, and integrated core process support in the following areas:

Acquisition skills and competencies, which include knowledge and experience available on demand within the ACE with reach-back to deep subject matter expertise in all areas of acquisition; collaboration and integration with an "acquisition university" or training function to provide learning at the point of need to the operational areas on a broad range of acquisition subjects and disciplines; creating and deploying consistent and disciplined knowledge management processes to mitigate the risk of knowledge loss resulting from workforce attrition and the subsequent loss of the investment already made in developing new processes and practices as well as mastering existing ones; and establishing a knowledge base that is relevant, current, and based on experience and insight about core process execution that is readily accessible to both novice and experienced acquisition practitioners, enabling everyone to become more capable, more quickly.

Acquisition tools and methods, which include an online capability (virtual ACE) that is the virtual representation of the acquisition center of excellence enabling users, from their desktops, to access, find and apply the latest policy guidance, management directives, expert knowledge, leading practices, learned lessons, tools, templates, and checklists specific to their organization's in-context acquisition and core processes to achieve consistency in both policy and process understanding and execution across operational areas.

Fast learning processes, which include three processes for "learning before, learning during, and learning after" execution that are taught and used across the program offices and enable an acquisition organization to leverage knowledge in ongoing operations to immediately improve performance; to improve the program office's ability to learn from past challenges and successes in developing and managing their programs; and to create long-term value from reusing knowledge, experience, and insight held by the acquisition workforce and its contractors.

Collaboration: The Whole is Greater Than the Sum of its Parts

All source acquisition, when planned and implemented as a collaboration opportunity between the ACE and the acquisition (program) offices, could yield extraordinary benefit in managing to better acquisition outcomes. While incremental improvements may be achieved by focusing on one capability, the real long-term benefit and value can be derived from the synergy of enabling a collaborative ACE/acquisition office relationship in all three areas: acquisition skills and competencies, acquisition tools and methods, and learning processes.

Acquisition organizations that are willing to invest in the creation and sustainment of an effective Acquisition Center of Excellence can achieve the following kinds of results:

- Adaptation of critical and relevant knowledge (information + experience) around major systems acquisition and services acquisition, in context, across an acquisition organization
- Ongoing ability to mitigate the risk of knowledge loss (accumulated acquisition skills, practical knowledge, and accumulated training) resulting from workforce turnover
- Consistent application of a systematic and disciplined approach to capturing and leveraging knowledge for reuse that focuses on knowledge at the point of execution to assure successful mission outcomes
- Learning lessons as a fundamental part of the acquisition planning and execution cycle while aligning process, execution, and training to ensure that the most current field knowledge is integrated into process execution and training and aligned with execution
- Consistent ability to find and apply acquisition knowledge that is needed when it is needed for the intended purpose
- Improved understanding of the function and value an ACE provides the program offices and the "business of acquisition."

In the end, it's about effectively and consistently replacing risk with knowledge!

The author welcomes comments and questions and can be contacted at bill@workingknowledge-csp.com.

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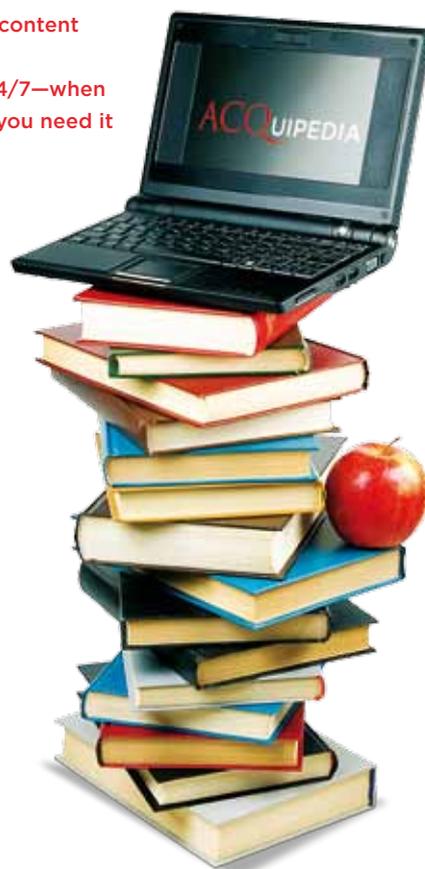
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