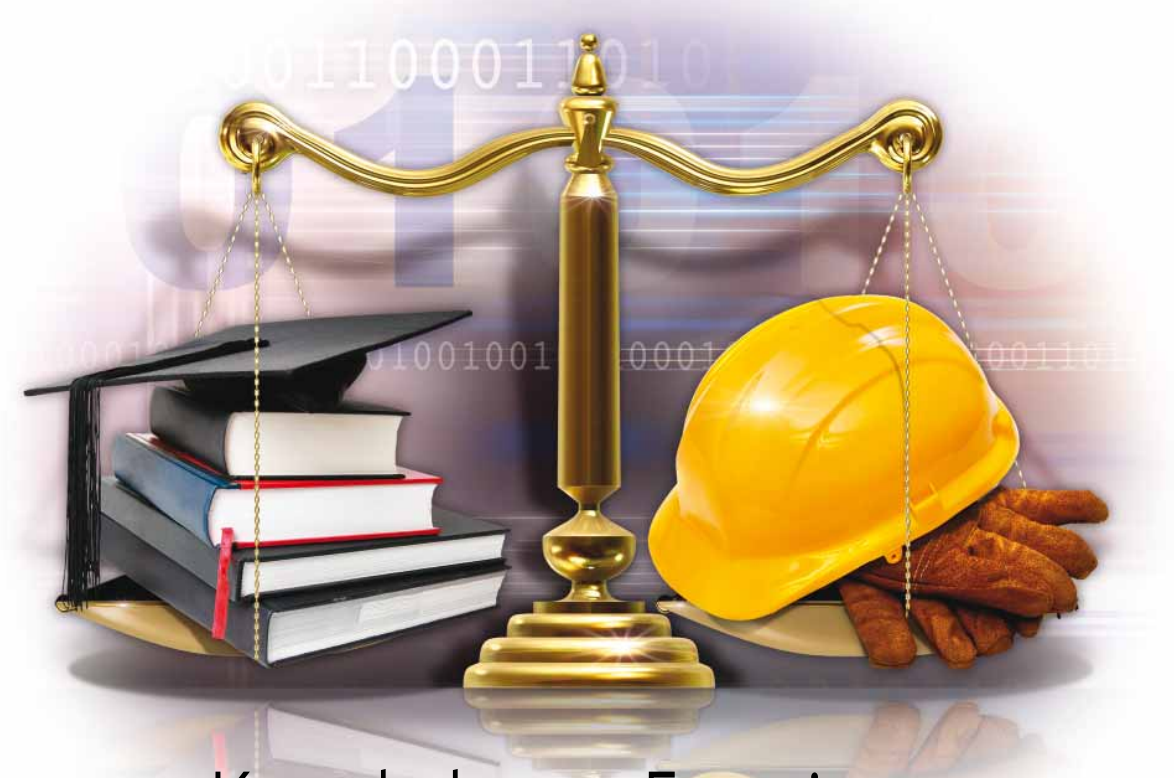

Knowledge vs. Experience

The Need for an Acquisition On-the-Job Qualification Standard

Roy Wood

The admiral's letter attached to the transfer orders read, "Congratulations, Cmdr. Smith! You have been accepted into the aviation community and will be given the opportunity to fly our newest and most sophisticated aircraft. As a mid-career officer, you have proven yourself in your warfare specialty and have been a successful leader. You are clearly ready for a new challenge."

Over the next several weeks, Smith was immersed in classroom lectures on complex flight systems and aircraft operations. There were viewgraphs, of course, and even a few group exercises in which each officer in the class assumed the roles of the various crew members to get a feel for how they should work together during a mission. The capstone week included a series of case studies, mainly focused on what to do when things invariably went wrong. That led to lengthy discussions, but the students were warned that every problem was, in its own way, unique and had to be handled through application of good leadership and communications. Finally, it was graduation day, and Smith was taken out to the hanger, shown the aircraft she'd be flying, and introduced to the crew (most of whom had been similarly trained).

"It's time now," the instructor said. "You are all successful graduates of the training class, and Cmdr. Smith is a proven leader. Your aircraft is ready, the crew is assembled, and you have been briefed on your mission requirements. It is all up to you now. Climb aboard and take command. Good luck and godspeed!"

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Knowledge vs. Experience

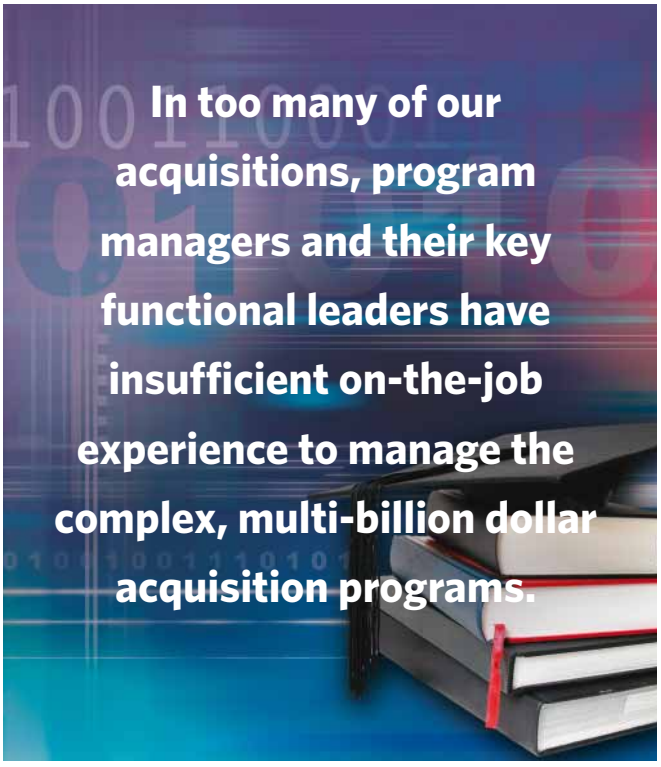
That scenario, of course, is a recipe for disaster. U.S. military services would never consider letting someone—especially an officer with experience in a vastly different field—fly a complex aircraft with only a few weeks of classroom indoctrination. Why? Because we all recognize the difference between knowledge and experience. Yet in too many of our acquisitions, program managers and their key functional leaders have insufficient on-the-job experience to manage the complex, multi-billion-dollar acquisition programs. Even the acquisition professionals who are lucky enough to have served in program offices throughout much of their careers may have experience that is too narrowly focused to handle the breadth of challenges presented by today's complex acquisition processes. But how could this happen?

In general, there are three components of the certification process: education, training, and experience. The education requirement is reasonably straightforward and easily verified. Training requirements are similarly straightforward, requiring the workforce to attend a specified series of courses at the Defense Acquisition University or obtain equivalent training. The weak link is the experience requirement. In most cases, the experience requirement is simply to have a minimum number of years in an acquisition-related job or jobs. The jobs that are considered acquisition-related are not specified, and there are no standards for the quality of the on-the-job training or experience. At best, the vague experience requirements render any certification questionable. At worst, the requirement becomes meaningless.

So why is this important? Just as with the example of the inexperienced aircraft pilot, no amount of training without significant quality experience can prepare an officer or civilian to be successful in today's complex defense acquisition environment. With billions of dollars at stake, we can ill afford to "crash" a major acquisition program any more than we can crash an expensive new aircraft. And just as it takes time in the cockpit with an experienced instructor pilot to fly a modern aircraft, acquisition leaders need focused on-the-job experience in the program office with skilled mentors to learn to manage their complicated programs.

Managing Complex Defense Acquisition Programs

Acquisition programs are exquisitely complex—far more so than most people realize, particularly those who have never been assigned to a program office. Planning, adjusting, and replanning occur frequently. Technical decisions and tradeoffs are made throughout the life of the program, requiring a detailed knowledge of the science and engineering behind the hardware and software. Budgets can fluctuate with every annual appropriation bill, and program costs and schedules can change when problems are encountered or requirements change. Program managers must have the experience to be able to react to any changes quickly and correctly to prevent small perturbations from crashing their program.



On any given day, dozens of critical decisions are required that may have far-reaching consequences for program cost, schedule, system performance, contractual obligations, or even team morale. It requires experience and wisdom to foresee the consequences of many alternative courses of action and make the right decisions.

An Acquisition Qualification Standard

Fortunately, the solution to the experience challenge is reasonably straightforward and can be modeled after existing qualification systems in the military services. The acquisition community should adopt its own version of the Navy's personnel qualification standards or the Air Force's career field education and training plan. Those systems are standards-based and aligned to core competencies required for complex tasks. Both contain training and experience components. For the Navy, comprehensive personnel qualification standards are in place to support enlisted- through officer-level qualifications for a wide variety of watch stations, tasks, and warfare qualifications. The Air Force plan is already tailored to acquisition program managers.

Using a written acquisition qualification standard (AQS), individuals would work toward formal job qualification, demonstrating their knowledge, skills, and abilities to perform the tasks at their certification level in their chosen career field. Each knowledge or skill requirement would be demonstrated to their supervisors or other qualified individual(s) authorized by the commander or supervisor to certify others in the task or skill. Each competency would be certified by initials or signatures of both the individual and supervisor in order to be satisfactorily certified. Once all the individual competen-

cies are completed, the candidate may be required to further pass a comprehensive written or oral exam administered at the command or component level, or perform the entire task set under supervision to demonstrate that the individual is ready to "fly solo."

An AQS system would be a boon to the acquisition community. Formal competencies and personnel qualification standards should be derived for each career field (e.g., contracting, systems engineering, program management, etc.) at each certification level (I through III). Written qualification guides should be developed for use by every acquisition professional aspiring for a career field/level designation that includes a breakdown of competencies and recommended demonstration methods (Q&A, demonstration, etc.). Individuals would be required to attend the prerequisite training, as they currently do, and then be issued a certification AQS workbook for on-the-job completion. When all items in the booklet are completed, the individual's supervisor would decide whether an examination or demonstration would be required to be recommended for certification.

AQS: An Example

Using another example with the fictional Cmdr. Smith, say the commander desires to be certified as a Level III program manager. The certification requires that Smith be previously certified at Level II as well as attend functional training online and at a regional DAU campus. After Smith completes the courses, she will be given an AQS booklet that lists perhaps 50 tasks that she must perform satisfactorily in order to demonstrate her ability to be certified at Level III. Some examples of potential tasks:

- Prepare for and participate in a significant program review (preliminary design review, critical design review, or program milestone)
- Participate in an integrated baseline review to document a contract baseline
- Lead a budget-related "what-if" drill on a program and prepare a report of impacts to senior leadership.

The first AQS item would ensure that Smith had a working knowledge of the systems engineering and decision-gate processes for her program. The second AQS objective would focus Smith's efforts on understanding the program contract, work-breakdown structure, and cost account management. The third would provide practical experience in the analytical skills required to understand potential budget risks and impacts, mitigate risk, and communicate important program information to Smith's leadership. Those activities would be assigned and evaluated by an experienced program manager, who would also provide valuable feedback and likely share his or her real-world experiences with Smith (creating a positive mentoring relationship).

This level of rigor in the proposed AQS certification process would create an environment in which action learning—studying your own actions to learn how to improve one's performance—takes place on the job. Using the AQS system, individuals will not only hear about acquisition competencies in the classroom, but will experience them in the workplace. The system will provide a definitive roadmap for every acquisition professional, with a set of prescribed tasks and activities needed to build confidence and competence. It will also be a way supervisors can measure when their subordinates have the requisite training and experience to do the job, and can be made an integral part of their NSPS [*National Security Personnel System*] or other performance evaluation goals and objectives.

Beyond Formal Training

Managing a complex defense program is hard work and requires training and experience to be successful. Formal training courses are excellent and provide a good foundation of knowledge for acquisition professionals. Formal training alone, however, is inadequate. A robust AQS program, coupled with foundational training, would provide a better-prepared cadre of capable, experienced professionals. The rigor of an AQS program would require individuals to demonstrate their understanding and ability to perform key tasks before being certified in a career field at a specific level. This rigor would give personnel specialists, program executive officers, and other executive decision makers a greater confidence that personnel who were certified have demonstrated their ability to do the basic functions of the jobs. That would result in better assignments of more qualified personnel and decrease the chances of an inexperienced acquisition professional "crashing" his or her program.

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