



There is an old saying that you don't really understand something until you have to teach it to someone else. With both of us having more than 20 years of defense acquisition experience, we were confident in our abilities and knowledge of the acquisition process. So much that we decided to join the Defense Acquisition University faculty as professors of acquisition management. As new instructors, we expected the teaching certification process to consist of taking "train-the-trainer" classes to enhance our classroom presentation and facilitation skills. We were surprised to learn that we would

***Gleason** is a DAU professor of systems engineering and acquisition management. **Minnich** is a DAU professor of test and evaluation and acquisition management.*

also be required to retake many of the acquisition and program management courses previously completed. Both of us thought, "I already know this stuff!" Though skeptical of the need, we retook the courses to satisfy the teaching certification requirements. Over the next several months, we completed the courses, received our certifications, and began teaching the courses ourselves.

In going through this process, however, we quickly recognized the value of retaking the courses. There were many changes to the defense acquisition and requirements generation processes that we simply were either not aware of or found were not relevant in our most recent previous job assignments. While we had a general awareness, there were topics addressed that covered areas handled by others in our offices. As a result, we did not possess an adequate understanding of these topics to teach the material with confidence.

There was material presented that we had simply forgotten because it was not part of our everyday job in recent years. While this was expected with some material in the advanced courses, we were surprised that we had forgotten material taught in the basic and intermediate courses.

How could this be? Like many people, we received our Defense Acquisition Workforce Improvement Act (DAWIA) certifications years ago. Once we had the required "check in the box" to be qualified in our particular career fields, we seldom took refresher courses or courses for currency. Over the years, we had satisfied our biannual 80-hour continuous learning requirement through graduate courses, symposiums, and other training events (basically any training we had done lately that we could sell to our supervisors for credit). Having graduated from college with engineering degrees, we worked under the assumption that we could always refer back to our textbooks if we forgot something. While this practice is valid for engineering, where the laws of physics don't change, it is not valid for defense acquisition positions—or defense acquisition areas of expertise. The defense acquisition process is ever evolving. Since receiving our DAWIA certifications, the Department of Defense 5000 series policy documents that govern the defense acquisition system have undergone several major revisions; the Joint Capabilities Integration and Development System process was established; and many changes to public law, acquisition regulations, and policies have been made, including the Weapon Systems Acquisition Reform Act of 2009. Portions of what we previously learned and the associated information contained in the previous guidance had become outdated and was no longer relevant. We realized it was time to recycle all the old acquisition materials we had been carrying from job to job.

Current Defense Acquisition Environment

So why is this important to the acquisition workforce? Quite simply, it reinforces the need to stay on top of our game. De-

fense acquisition is a very dynamic, high-dollar, high-stakes business with significant visibility from the executive and legislative branches of the government, the news media, and the public.

As we continue to be plagued by program cost and schedule overruns, each administration seeks to reform the defense acquisition process. Most recently, President Barack Obama, with unanimous support of Congress, recently signed the Weapon Systems Acquisition Reform Act. But acquisition reform has been around for years. Remember the \$400 hammer and \$600 toilet seat from the 1980s? Those revelations prompted then-President Ronald Reagan to establish the Packard Commission. As a result of the Packard Commission and other internal DoD initiatives, many reforms were made. Since then, we moved our organizations through "right-sizing" and transformed our business processes to be more efficient. But despite those efforts, we are still experiencing significant cost and schedule overruns on many of our major defense programs. Will the latest reforms be better? While this is a subject of much discussion lately, one thing is clear: no change will be effective in producing the desired results without a highly competent acquisition workforce.

Building Competence

Training is a key element in building competence, but often there are barriers that prevent us from getting the training we need. At the organizational level, funding tends to be the most significant barrier. Recognizing this as a barrier, Congress passed Section 852 of the fiscal year 2008 National Defense Authorization Act, which required DoD to establish a Defense Acquisition Workforce Development Fund. The fund is a multi-year initiative to support recruiting, training, development, and retention programs.

There are also personal barriers—personal reasons we chose not to take more training. From our own experience working in the acquisition community, we have seen many, including:

Too Busy to Take the Time

According to Parkinson's Law, the time to complete a task will expand to fill the time allocated. Thus, if you are looking for a slow time when you can take training, it will never come! We need to recognize the long-term value of training and make time. It is similar to assembling a new bike or barbecue grill—while it's tempting to just start building, in the long run, it will save you time to read the instructions first. The task goes faster when you better understand what you are doing. Acquisition training needs to be a scheduled event or it won't get done.

Over-Reliance on Experience

While there is no substitute for good experience, simply counting years is not an adequate measure. Doing the same job for 15 years is not equal to 15 years of diverse experience. Even if you change jobs or move to different programs, you



**Regardless of how long
we've been in the business
or what training we've had,
the environment is too
dynamic to rely on what we
have learned in the past.**

may find yourself focused on only one phase of the acquisition process. To be a more effective acquisition professional, you should have a good understanding of all phases of the acquisition process and know how to apply your expertise across the acquisition life cycle. Most likely, you have only worked for one military service or have been in the same command for years. When was the last time you contacted another command or service to find a solution? Are you applying lessons learned and best practices in your program? Acquisition training will broaden your knowledge and expose you to ideas from people outside your command and service.

Reluctance to Take Another Class Based Upon Previous Experience

You may recall previous training courses as “death by view-graph” and desire to never see a classroom again. While this may have been true years ago, many courses are now geared to group exercises and problem solving using real-life scenarios. Often, there are no “textbook” answers, as the groups must perform critical thinking, make a decision, and then be able to solidly defend the decision to the rest of the class. In addition to being much more engaging, the retention rate for this experiential-type learning is considerably higher. And it's much better to make a mistake in the classroom and learn instead of back at the office where it could cost the program. Students are overwhelmingly pleased with this learning method. Many students walk in the door with low expectations and leave wanting to take more courses. Acquisition training is more engaging than ever before, focused on building critical thinking skills rather than rote memorization.

Already Have Your DAWIA Check in the Box

As a general rule, what gets measured gets done. If you haven't completed your DAWIA certifications or your continuous learning requirements, then it gets tracked and reported until you get the check in the box. But once complete, it's no longer measured, and there is no longer pressure to complete further acquisition training. However, the 80-hour continuous learning requirement is the minimum, not maximum. Depending on your experience level and job

complexity, more training may be required. Also, how long has it been since you received your initial certification? If it's been a while, you probably need more than 80 hours of continuous learning to be current. As we recently learned, the shelf-life of your acquisition training is much shorter than you may realize! Acquisition training should not be considered just another check in the box, but rather, a key element of building/sustaining your lifelong pursuit of acquisition knowledge.

Staying Current

Recognizing the need to stay on top of our game, how do we stay current?

Take Meaningful and Relevant Training

Continuous learning should build upon your basic certification training and be used to maintain your currency on recent changes that affect the defense acquisition community. With advanced planning, no one should have difficulty completing the 80-hour continuous learning requirement. If you are not sure regarding which courses to take, the Core Plus Development Guide provided in DAU's iCatalog (<<http://icatalog.dau.mil>>) is a good starting point for assignment-specific courses. Browse DAU's continuous learning center for courses of interest. The online learning assets are accessible to all acquisition workforce members anytime and anywhere. Check your Service's or agency's e-learning portals for other online courses and your local command's onsite training opportunities. Be sure to work with your supervisor to create an individual development plan to schedule acquisition training as part of your annual goals.

Seek Knowledge Sharing Opportunities.

DAU's Defense Acquisition Portal (<<https://dap.dau.mil>>) provides online access to a variety of tools and reference materials. The portal includes quick links to the Defense Acquisition Guidebook, which is a compilation of lessons learned and best practices; and the Acquisition Community Connection, a website for acquisition community information organized by specialty. Those online communities of practice provide an electronic forum for sharing knowledge and information.

Additionally, professional symposiums and events sponsored by your local chapters of professional societies are excellent ways to build your professional networks, stay current with latest changes, and learn new ways to solve acquisition challenges. Reading professional journals and defense-related news articles will also help you stay current and enhance your situational awareness. The Early Bird News Service (<<http://ebird.osd.mil>>) provides a daily compilation of defense-related news articles and is an excellent resource for gaining insight into how the public, Congress, and the media view the military and defense programs. The Government Accountability Office's reports on national defense and acquisition-related issues (<www.gao.gov>) are another excellent resource. Many of the changes in the

Training is a key element in building competence, but often there are barriers that prevent us from getting the training we need.

Weapon System Acquisition Reform Act and DoD acquisition policy documents are the direct result of findings and recommendations provided in those reports.

Taking Courses in a Secondary Career Field

Taking e-courses or continuous learning modules (<www.dau.mil/training>, then select "browse online courses") from a different career field can broaden your perspective. Most of us work on integrated product teams, but we often lack a detailed understanding of the interrelationships of the different functional areas. How many system engineers have taken logistics classes to better understand what logistics elements are impacted during early design decisions? Probably the same numbers of logisticians that have taken systems engineering classes to better understand the technical reviews that occur early in the acquisition process. By broadening your knowledge, you will not only become a more effective team member, you will become more competitive for future career advancement.

Achieving Our Goals

Developing and fielding complex weapons systems to meet an ever-changing threat is extremely challenging. But that's why we chose to work in this business. There have been many changes over the years to help the acquisition process produce better results. But no matter what we change, it all comes down to having the right people in the right jobs with the right knowledge and experience. We need to recognize that regardless of how long we've been in the business or what training we've had, the environment is too dynamic to rely on what we have learned in the past. To make change work, we need to understand the change and its possible impacts. There are many training resources available to keep pace with these changes. Make the time to keep yourself current. You may think you already know this stuff, as we did. Then one day we had to teach it, and we realized we should have done more!

The authors welcome comments and questions and can be contacted at steven.minnich@dau.mil and wes.gleason@dau.mil.

DoD SYSTEMS ENGINEERING TOP 5 PROGRAM AWARDS

The awards, presented to both government and industry, recognize significant systems engineering achievement by teams of industry and government personnel.

- Winners must demonstrate successful implementation of systems engineering best practices resulting in program success based on 2009 performance.
- Programs are considered for this award at any point in the programmatic life cycle.
- Successful applicants should have passed a sufficient number of internal milestones to demonstrate the impact of systems engineering practices.

Nomination packages due July 1, 2010. Programs will be notified by Sept. 1 of their selection. Awards will be presented at the annual NDIA Systems Engineering Conference, San Diego, Oct. 25-28, 2010.



Sponsored by:

**Department of Defense
Systems Engineering Directorate
&
National Defense Industrial
Association Systems Engineering
Division**



Visit the NDIA website to download submission instructions:

www.ndia.org/divisions/divisions/SystemsEngineering/pages/awards.aspx