A technical deep dive for a submarine may involve carefully characterizing submersion depths that approach the performance limits of hull integrity or other system limitations. For a scuba diver, a Deep Dive could be better understanding the capabilities and limitations of human performance or the depth at which nitrogen narcosis begins to set in.

Spring, a graduate of West Point and former NASA astronaut, currently works at the Defense Acquisition University West Region in San Diego, California, as a professor of Engineering, Test and Evaluation, as well as chief learning officer and an executive coach. Haydu-Jackson is a former contractor supporting DAU West Region. She completed her coursework toward a master’s degree in business administration and has since left DAU for other employment.
Outside the aquatic world, the term “deep dive” is more of a metaphor; it is used in many disciplines and has various meanings depending on the domain using the term. For example, a technical deep dive may involve an evaluation of the underlying scientific basis of a technical pursuit, or an in-depth analysis of a program’s technical maturity, or a rigorous engineering review of the current application of certain technology vital to a program’s success. A business office might even use a deep dive technique for the divergent part of a brainstorming session.

As part of its Mission Assistance (MA) portfolio of products and services available to the Defense Acquisition Workforce, the Defense Acquisition University (DAU) has been conducting deep dives for more than a decade. Our customers tell us that this in-depth analysis of their organization has helped them better understand inherent challenges and exposed some of the associated root causes inhibiting the achievement of more successful acquisition outcomes.

Where Deep Dives Fit Into DAU’s Overall Learning Architecture

Figure 1 presents DAU’s Acquisition Learning Model (ALM). The right-side diamond shows Performance Learning, or the learning done in the workplace, and three of the competencies that support Performance Learning written on the diamond perimeter. The supporting competencies are Demonstrated Experience, Workshops, and Mission Assistance. Research has shown that almost 80 percent of all learning takes place in the workplace and that’s where MA comes in—the workplace and not necessarily the classroom or online.

Typical Origins of MA Requests

Normally, MA requests come from acquisition organizations after learning more about the extent of DAU’s capabilities outside the classroom, either through DAU’s website, or from a DAU professor who describes the ALM either in class or in a conversation afterward.

Can DAU Give Us What We Need?

DAU usually conducts a series of initial interviews with leadership at multiple levels to help determine the most suitable type of MA. While a crucial component for many of the MA solutions at our customers’ disposal, interviews alone are generally not sufficient to determine if a deep dive is well suited. After a series of more intensive discussions with DAU, it might prove to be a good fit. We have learned that, if we start the MA only after interviews, we are often addressing or fixing symptoms and not the root cause. If we do not address the root cause, the symptom usually will reappear in the same or mutated condition and still require MA, or, later, intervention to correct.

In some cases, MA without a deep dive is analogous to ready, fire, aim—in other words, an MA event without aim is almost certain to miss the desired target. In the same context, DAU would expend resources and invariably miss the target without the data from a deep dive.

There are exceptions. If an organization has a shortage of trained personnel to meet its current or emerging mission, DAU can respond with a variety of time-urgent training options. However, untrained personnel filling certain positions could suggest a bigger issue. Why are they filling positions without training? Do they have access to the required formal training, or has the organic, on-the-job training program waned or become ineffective? DAU uses a highly interactive workshop venue in which our customers use their own products, in many cases, as part of the workshop. That is the perfect approach for newly arrived personnel who need a quick course in which they can go over new policies or refresh their skills. DAU also offers various workshops that can be conducted with the staff or workforce. Some examples include Acquisition Leadership Development, Stakeholder Management, Risk Management, and Services Acquisition, as well as Continuous Learning Modules (CLMs) and/or modified standard course modules tailored to the organization (ACQ 201B, ENG 203 for Nuclear weapons) CLM on the Nuclear Phase 6.X process. Some actions, policy or discipline, for example, need to be owned by the leadership, while workshops with specific topics would be facilitated by DAU.

A deep dive that uses a survey usually requires a series of events coordinated with the organization leadership.

More About the Survey Process

Following a series of conversations with various leaders, DAU begins to better understand the customer’s organizational dynamic. But sitting down with the customer and
co-developing an in-depth survey with specific questions tuned to the identified challenges is a sure way to get the data. Designing a survey is not as simple as it sounds. It requires a great deal of preparation. Survey question design is not a task for one person but rather a collaborative effort between DAU and the customer. During these question design meetings, DAU’s survey team works directly with the customer to generate questions that would uncover root causes that could be leading to the wrong kind of consequential outcomes. The customer is involved throughout the development period, providing feedback on the draft survey. DAU can sometimes start the process with a boilerplate survey tailored for the organization requesting MA.

Rating scale questions bundled in matrix-form coupled with open-ended questions provide a strong qualitative and quantitative measurements yielding greater credence to richer assessments. These deep dive surveys can also serve as an organization’s health check-up. The results could confirm the need to provide a booster shot in many areas—including communication, trust, conflict management, professional development, internal processes, feedback, accountability, advancements and recognition, to name a few such areas.

Every DAU survey also includes demographic questions in order to determine how different populations within an organization respond. For example, a large percentage of the same population negatively responding to the same question provides is a valuable data point.

Open-ended questions are included throughout the survey to enable respondents to open up about new areas related to the topic or to get things off their chests. In the aggregate, these may result in new themes we need to address.

Survey results are compiled and analyzed. The lead faculty member and analyst build a presentation that recommends course(s) of action for the organization’s leadership.

Protecting the respondents’ anonymity is of the utmost importance. Every survey response is confidential and protected. All survey results are presented in aggregate, and the requesting component (organization) never sees the raw data—another way the DAU survey team protects respondent anonymity. Nothing will ever be presented or briefed if it can be attributed to any individual in any way.

Many types of formats are available for structuring surveys, depending on the desired results and preference of the developers and analysts. One format used recently focused questions on the types of intervention, corrective action or MA that were available.

Examples (from The Performance Consultant’s Field Book: Tools and Techniques for Improving Organizations and People (2nd ed.). John Wiley and Sons, 2006. [Figure 8.2. The Families of Interventions]):

- **Information focused:** This type of corrective action might be as simple as an all-hands meeting to disseminate information or may require a change in climate that would foster better communications. Depending on other related factors, Crucial Conversations, Speed of Trust, and Stakeholder relationship workshops might also be appropriate.
- **Consequences focused:** If poor behavior in many areas is the issue, a consequence-type intervention may result. This could take the form of “New Rules” information or a facilitated workshop with management and a worker’s council to develop the rules and appropriate scaling of consequences.
- **Design focused:** These activities are intended to change behavior, beliefs or way of doing business by modifying the organizational structure, revising the reporting chain, or by making other modifications to effect the desired outcome. This could be done by fiat or through a participatory facilitated workshop.
- **Capacity and capabilities focused:** This type of action might be appropriate for needed training because of new technologies, new workforce members or changing needs. With the workforce diminishing in some areas and with increasing demand for support, this type of workshop or activity can help develop an optimal solution to improve capacity or capability.
- **Action focused:** If we have a problem and the commander wants a solution, this type of intervention or activity might be appropriate. The scope could range from a simple set of directions and/or policy proliferated from the commander to a facilitated workshop with appropriate attendees to design the actions that need to take place.
- **Congruence focused:** This is indicated when we need to get folks on the “same sheet of music” so everyone is working the same problem at the same time. Over time, some organizations drift in the tight control and discipline required for certain activities. A congruence-focused action can solve the problem.
Aside from the quantitative feedback from respondents in deep dives, a sampling of their recommendations includes:

- Reorganization
- All-hands information meetings
- Leadership workshops
- Alternative work schedules
- Advancement opportunities

Following the deep dive, analysis and brief to the command staff, a single workshop or series of workshops may be presented. In most cases, the more compelling imperative is that a long-term plan be implemented to help meet the organization’s specific needs, coupled with longer-term communications strategies to help keep command, management and working staff well aligned.

A significantly powerful combination involves joining Executive Coaching and the related Extraordinary Future envisioned by the coached client with various facilitated workshops to get the workforce to buy in and achieve that Extraordinary Future.

DAU continuously seeks customer feedback on the efficacy of MA. We need to know if we got it right, good or bad—and what changes might be warranted to improve our products and services.

Using the results of the survey, an organization’s leadership and DAU faculty lead collaborate to determine a long-term plan for the organization. With Executive Coaching, Consulting, the Defense Acquisition Executive Overview Workshop, Soft Skills Leadership training, tailored academic modules, and tailored intervention modules such as Crucial Conversations®, Will-Cost/Should-Cost, or cybersecurity workshops, the options are seemingly limitless.

What DAU Customers Say About DAU Support
While we can’t name the organizations for which we’ve conducted deep dives, here is what one organization stated:

The initial consultation resulted in a survey which helped identify specific problems which need to be addressed. The second consultation (the classes) revealed an interest in solving the problems that went beyond just the managers. Since we don’t want to develop any solutions until everyone has been involved, no specific metric on improvements [is] available, but as previously said word has spread, and the workforce is hopeful that viable solutions can be developed and implemented.

While a deep dive might sound a little ominous, the organizational gains it offers are well worth the initial investment. It won’t fix everything, but it reinforces what’s working well and what needs more attention.

The authors can be contacted through woody.spring@dau.mil.