



Self-Regulated LEARNING

The Contracting Specialist's Super Power

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EACH YEAR THE DEPARTMENT OF DEFENSE (DOD) SPENDS BILLIONS OF DOLLARS to develop, produce, and field its weapon systems. If you are reading this article, there is a fair possibility that you play a role in this process and a near certainty that your employer hired you based on your unique talents.

The recruitment process that places people in their roles centers on fulfilling organizational skills gaps. Organizational skills gaps change over time. Advancements in the present digital age have created the need for new skills in our acquisition process. Speed in acquisition now is indispensable if we are to successfully prosecute the DoD mission tomorrow. The way we work, the personnel we recruit, and how we develop people to fill these new skills gaps are central to rapidly fielding relevant weapon systems required by our National Defense Strategy.

For decades, strategies for acquisition workforce development have been competency-based. This has aided acquisition community employers by identifying candidates with the skills, training, education, and experience that will support their successful performance of predictable tasks in a specific acquisition position. Changes in organizational requirements and technological advances have compelled a review of the DoD's desired workforce competencies. In supporting this idea for a change in competencies, the National Contract Management Association (NCMA) along with Management Concepts interviewed senior leaders within the GS-1102 career field and found that there is a risk-averse culture within the contracting community. This risk aversion lingers, and at times festers, as an organizational barrier to our innovation, speed, and agility and a hindrance to accelerating acquisitions.

NCMA's and Management Concepts' findings are insightful and align with the direction of this article. However, we go beyond the observations of these senior leaders and incorporate perspectives of academic thought and evidence-based research to reveal an essential characteristic, particularly in today's rapid-paced environment, for a contracting professional to succeed—self-regulation.

Successful Contracting Professionals Are Self-Regulated

As Defense Acquisition University (DAU) faculty members, and lifelong learners, we have found that acquisition professionals, especially successful ones, consistently display the super powers of self-regulated learners. These make up a category of learners who take responsibility and are active participants in their learning, and tend to leave each course with a deeper, reflective understanding.

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Self-regulation enables them to deal with complex issues by thoughtfully reallocating time and resources to areas of greatest need in order to achieve desired learning outcomes.

“Superman” possesses a number of super powers, such as flight, superhuman strength, x-ray vision, heat vision, cold breath, super speed, and enhanced hearing. Similarly, self-regulated learners control a number of super powers. Self-regulated learners possess three interrelated super powers—self-efficacy, exploratory behavior, and metacognition (or deep thinking).

Although metacognition sounds most like a super power that one might find in a comic book, self-efficacy is at the core of self-regulation. In other words, the degree of confidence of a learner in achieving a desired outcome determines how much time and resources they allocate to the task. Self-regulated learners tend to have greater academic self-efficacy and therefore routinely invest more energy and time in learning new concepts. Nevertheless, just as superheroes must have a reason to use their powers, self-regulated learners must have a reason to invest time and energy in learning.

Whether the reason is operational (gain new insight or skills) or a matter of consciousness (higher self-esteem or self-actualization), there must be a motivation to learn. For previous DAU students, the reason has been obvious—certification. Defense Acquisition Workforce Improvement Act (DAWIA) Level III was an operant and consciously important watermark for self-regulated learners within the Contracting field. Many contracting professionals, who also were self-regulated learners, invested the time and intellectual resources to attain that definitive Level III certification in Contracting, whether or not it was needed for their positions. These self-regulated learners certainly were motivated by the desire to advance to higher agency positions, as well as the opportunity afforded by a DAWIA Level III education to improve their performance in their present jobs. We should not lose sight of self-esteem and/or self-actualization as motivations for contracting professionals seeking progressive certification early in their careers. The ability to say “I’m a Level III in Contracts” has been an important qualification for up-and-coming professionals.

Progressive experience requirements coupled with the three levels of training, most of them with college equivalencies, allowed learning to occur incrementally. This was important because learning requires a degree of repetition and the investment of time and intellectual resources. Nonetheless, some observers, including the authors of this article, believe that these increments were too tightly coupled within an overly compressed period and therefore may have muted workforce development. This muting,

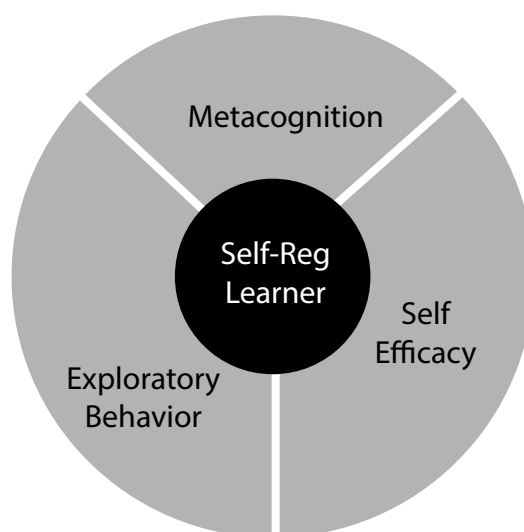
coupled with a lack of reiteration and reintroduction of advanced acquisition concepts, may have been a factor in creating a risk-averse culture in the contracting community. This short learning schedule probably reduced learners’ engagement with the material and increased their concern with the Level III designation. If learners fail to engage in the learning process, learning itself is hindered.

Learner Engagement and Online Learning

If you ever read a Superman, Spiderman, or Justice League comic, or saw one of the television shows or movies based on them, you are familiar with the concept whereby a superhero team can only be effective when engaging supervillains and using the right super powers in the right amount. The same principle applies to self-regulated learners. As defined in Alexander Astin’s theory of involvement, learner engagement is “the amount of physical and psychological energy that the student devotes to the academic experience.” With additional engagement, learner energy and commitment are expected to increase and improve learning outcomes. A lack of learning engagement leads to the learner tuning out instruction and this reduces learning retention.

Learner engagement typically is greatest in a physical classroom environment. But it also is present in other venues, such as online synchronous learning environments. Since engagement between the learner and the educator and among learners is a vital element to the learning process, online synchronous learning is becoming prevalent in adult education. This is due to its ability to closely simulate

Figure 1. The Qualities of the Self-Regulating Learner



Source of figures: William A. Schleckser.

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traditional classroom learning. Synchronous learning, properly executed, inspires learner engagement.

On March 13, 2020, the DoD, as a result of the Coronavirus Disease-19 (COVID-19) outbreak, transitioned acquisition learning and training opportunities to online modalities. DAU rapidly responded to COVID-19 by shifting from in-class instruction to synchronous online training. Interestingly, DAU witnessed learning performance outcomes of online instruction similar to those of traditional classrooms. This would not surprise adult education and distance-learning experts because seminal studies in adult learning have reached the same conclusion. Research has found that learner performance essentially is the same in virtually instructed real-time instructional settings as in traditional classroom environments. While levels of learner engagement may appear higher in the traditional classroom, somewhat reduced engagement within synchronous environments permits equivalent learning, and no negative impacts have been found on learning performance.

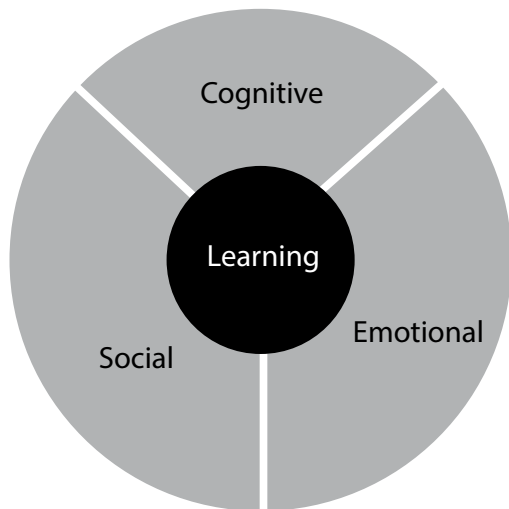
DAU's success in delivering synchronous online training will result in more courses moving to such environments with their reduced expense and simpler delivery. So why discuss online synchronous learning in an article about

self-regulated learning? Synchronous online training environments are intrinsically suited for self-regulated learners. When virtual-learning processes are appropriately applied, this online venue increases the learner's control and responsibility and provides more opportunity for reflective thought. Increased control and reflective thought are necessary to go beyond simply remembering data and achieve the deeper understanding that facilitates higher-order application and analysis.

As organizations look to fill organizational skill gaps through employee development, they are likely to recognize that there is more to learning than a change in behavior. There is the transfer of knowledge from the interrelation of three elements—cognitive (internal process), emotional (feelings), and social (connection to others).

Cognitive and emotional elements have distinctly individual effects; therefore, the learning venue, whether physical or virtual, probably has limited influence on these elements. The social element in learning typically is seen as negatively affected by virtual environments. This social element involves active engagement with other learners, what we previously described as learner engagement. Although learners connect virtually instead of in person, research has found that a social connection still emerges and can be enhanced by synchronous online design and delivery methods.

Figure 2. Three Elements of Transferring Knowledge



Design and Delivery Methods for Collaborative Learning

As design and delivery methods evolve, so will the expectations of the learner—the DAU customer. Adult learners, especially those who are self-regulated, seek immediacy and accessibility in their adult education experiences matching the experiences in their everyday, connected lives. Higher educational systems matching or exceeding learner expectations can be a disruptive force across the adult educational landscape. DAU is moving to align itself with learner expectations by increasingly using suitable instructional designs that align with adult learning. Furthermore, DAU is reviewing its asynchronous online learning formats, also known as self-study, for opportunities to enhance the self-directed learning setting with enlarged learner engagement. This is vital, as asynchronous online learning lacks learner

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real-time engagement between the educator and other learners, potentially reducing both engagement and learning outcomes. Although the final verdict on these changes and enhancements is not yet in, initial reports are favorable: There appears to be a higher return on each training dollar spent, creating broad support for synchronous online training.

In their book, *Interact and Engage! 50+ Activities for Virtual Training, Meetings, and Webinars*, Kassie Laborie and Tom Stone identify synchronous online training pros and cons. They point out the disadvantages of providing instruction through lecture, and highlight the potential advantages of synchronous online training's use of collaborative learning activities. In this new virtual environment, instructors are most effective when they facilitate reflective and collaborative dialogue with and between students. This methodology ultimately "teaches students to fish" intellectually and independently instead of merely "giving them instructional fish" and continuing their reliance on the instructor for knowledge.

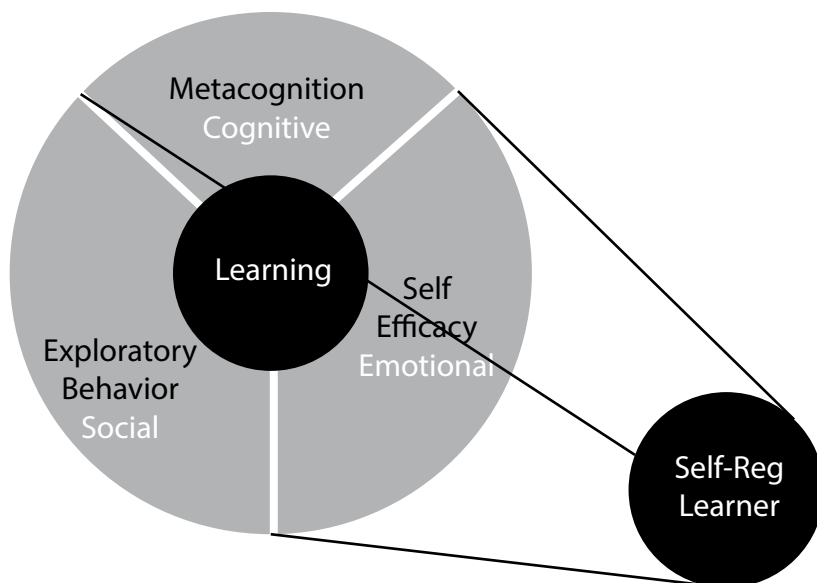
Referring again to Laborie and Stone's synchronous online training pros and cons, notice that peer-to-peer and social learning occur naturally. This collaborative learning is contrary to the behaviorist theory of learning in which a learner completes a task and receives a passing or failing grade based on achieving a desired outcome. In contrast, collaborative learning is more effective because adult learners are expected to be self-regulated and have intellectual aspirations, internal motivations, life experiences, and a level of independence. Self-esteem and/or self-actualization needs are more readily satisfied for adult learners, with the self-improvement realized in acquiring a new skill or ability rather than receipt of a desired grade.

Like Clark Kent going into a telephone booth and coming out as Superman, adult learners find a collaborative learning environment most effective in revealing their self-regulatory super powers. This allows them to simply turn on that proverbial "light bulb" in their minds as they grasp or realize new concepts. This ability to go from known information to comprehending a previously unknown or unfamiliar concept is due to the three functions men-

tioned earlier—confidence, intellectual curiosity, and deep thinking (metacognition). Learners—especially self-regulated adult learners—use these three functions internally in dealing with complex contracting subjects, such as source selections or cost analysis. We would suggest that self-regulated learners can enhance their learning by leveraging their powers of self-efficacy, exploratory behavior, and metacognition in the cognitive, social, and emotional functions of learning.

It is imperative that these concepts be appreciated. They identify core skills that organizations seek in recruiting future contracting professionals. These also are the skills that existing contracting

Figure 3. Leveraging Three "Super Powers" in Learning



professionals should endeavor to improve. In today's post-COVID-19 environment, the intellectually curious contracting professionals will have a greater probability of success, especially as more training moves to online synchronous environments. They must not only be self-regulated in their learning, they must leverage these skills to address the gaps their organization seeks to fill. One of the most necessary skills contracting professionals must strengthen is the self-regulated learner's power of metacognition.

Deep Thinking Skills—Mandatory for Future Candidates

It is no coincidence that new entrants in the contracting career field must have successfully completed a 4-year college degree. This prerequisite identifies an accomplished student who has shown a level of diligence and resourcefulness in completing college-level studies—a self-regulated learner. But we need to look beyond collegiate accomplishments to seek the personal traits that match organizational needs. As stated earlier, the best candidates will be those who are not only diligent and resourceful but also display a high degree of confidence, intellectual curiosity, and deep-thinking skills. An ability to think deeply, also known as metacognition, is the most desired and probably the most difficult of the three characteristics to identify in candidates. Deep thinking goes beyond using intellectual heuristics (or learning by experience) and challenges the learner's thoughts and beliefs in a way that simpler strategies or mental processes cannot.

Deep thinking directly correlates to a person's ability to think critically through a problem and create knowledge. This thinking is reflective and creates high-level outcomes

such as inferences, concepts, and premises. Acquisition professionals who critically think are essential for successfully operating our complex acquisition system and delivering positive outcomes. Candidates who have not already acquired deep-thinking skills will face a potentially insurmountable disadvantage in the new online learning environment, even greater than what they faced in a classroom environment. An organization that can identify individuals with the deep-thinking skills required for critical thinking will reap a strong crop of contracting professionals who will lead their organizations boldly and confidently into a future where speed of acquisition will be vital.

Conclusion

As organizational and operational requirements change, so will the way we recruit and develop future contracting professionals. The evolutionary process allows organizations to stay current, nimble, and resilient to challenges. Successful future candidates must be self-regulated learners who can harness their super power with high learner engagement within new online learning environments. Educators of these candidates must recreate delivery methods of learning in a more collaborative form that allows these new candidates to utilize their super power of self-regulation. Having a desire to self-develop, these candidates will further develop an already existent critical thinking ability to bring a capability that supports rapid fielding of relevant weapon systems and meets our National Defense Strategy head on.

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