

# Considering Culture in Instructional Design

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The recent advances in technology-based technical instruction development have ushered in a combination of cost savings and rapid deployment, enabled by easy production e-learning technology development tools and abbreviated deployment processes. In many cases, however, the drive for cost cutting, and the need for rapid deployment seem to have eclipsed the focus on and attention to well-designed blended learning solutions. Nowhere is this trend more evident than in training products that require participants to learn material in the three learning domains - cognitive, psychomotor, and affective.

## Technology and instructional design: A case study

I recently completed a research project to measure the satisfaction and effectiveness of the comprehensive training path for a critical skill set in the United States Military. Personnel who completed the training course were expected to be able to start up, operate, maintain, shut



down and troubleshoot some of the most sophisticated information technology and radio communication systems in the world, typically in isolated environments, independent of any assistance. To be successful upon completing the program, participants needed to achieve the knowledge, skills, and attitudes to fully operate this equipment in extreme locations independently.

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The command responsible for training these operators had recently switched from the traditional schoolhouse model of hands-on training taught by a senior non-commissioned officer, to self-paced computer based training (CBT) coupled with virtual simulations. An examination of the data, which measured critical knowledge, skills, and attitudes, found that officers, senior enlisted men, as well as the students themselves were satisfied with the training overall. But their satisfaction was limited to the knowledge and skill required to do the job. Most of our interviews with senior enlisted and officers indicated that a critical gap was evident. This gap in the attitudes required to successfully operate in the conditions where the operator might find himself. The attitudes required for ensuring respect for military tradition, precision, chains of command, and general dedication to duty were all noted as lacking significantly.

### **Compromises of training**

History gives us excellent examples of effective teaching techniques. Dewey's experimental education, Socrates' dialectical method, and traditional mentorship models are all examples of proven effective methods of instruction. Since these methods are long proven to be effective, why don't we use them more? What justification do we have to not use 1:1 mentorship, or pursuing truth through the deconstruction of our understandings? Simply put, because they're too expensive, and too limited in delivery capabilities.

In order for contemporary workforces to be competitive, training solutions do not need to be simply effective, but they also need to be efficient. It is the balance between these two sometimes competing elements that is critical for a training solution's success. So, what are justifiable compromises? Is selecting e-learning or another digital solution over instructorled classroom training or mentorship justifiable? It depends, and the way to determine what compromises are acceptable really requires an analysis of the content from a blended learning perspective.

In the case discussed above, the training organization was very proficient in producing highly skilled operators. But these skilled workers were not effective in doing their jobs in their occupational cultural environments. In attempting to improve the efficiency of skill transfers, they diminished the training's effectiveness. This critical error altered the instructional design of an essential component of the course of training, without consideration of its effect on the system. The learning associated with the affective domain (attitudes) was significantly altered when the classroom environment shifted from an orderly militarily vigorous environment where a master trainer required them to apply their skills in a self-reliant and problem solving manner, to a self-paced, noncritical learning environment where they weren't as challenged or asked to apply their skills in extreme work-like conditions. They lost an important cultural element needed to achieve their overall training goal.

### **Workplace culture and the affective domain**

These instructional design issues are relevant in the private sector workforce, too. Important workplace cultures like safety, quality and creativity can become stagnant or decline if training in the affective domain is not adequately represented and properly placed within the training system. Identifying the culture your organization desires and the worker qualities that embody it is a critical element that needs to be considered in any instructional design activity. Traditional learning design principles should not be ignored in course development, and delivery media should never drive the design process. So, before investing in the latest and greatest learning technology, make sure that it will enable you to reach the training goals you have set for your organization.

Dr. George Haber is the Instructional Systems Design Manager for DuPont Sustainable Solutions. In his current role, George consults with external and internal clients on aligning corporate strategies and goals with organizational development activities. Through detailed competency mapping, he develops detailed training system plans that provide returns on training investments through increased competency, decreased training time and system efficiency. He also oversees the development of training product design processes and development including instructor-led, e-learning and innovative blended learning solutions. Prior to joining DuPont Sustainable Solutions, George was a university professor for 12 years.



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