An Engine for Army Learning

Army University's Center for Teaching and Learning Excellence

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Abstract

To develop adaptive and innovative professionals that can maintain focus on readiness in the near and far terms, the Army institutionalized learning by establishing Army University (ArmyU). The engine of this institutionalized learning is the Center for Teaching and Learning Excellence (CTLE). Modeled after similar centers of learning from civilian institutions of higher education, ArmyU's CTLE facilitates learning in the Army in three ways. First, by "professionalizing" the core curriculum of its "profession." Second, by developing a cadre of faculty through programs that go beyond the rhetoric of the label "world-class." Lastly, CTLE facilitates an internal learning network with Centers of Excellence, the Army Research Institutions and Army Research Laboratory, as well as externally to other organizations leading innovations in adult learning. It uses this network to keep the Army abreast of the latest in learning sciences which consistently fuels the engine of learning innovations throughout the Army. This article describes these three functions and the tension in uniting competing views of professional military training and education into one unified learning philosophy. It concludes with lessons that will serve to sustain Army learning through the progress of CTLE and ArmyU.

Introduction

The U.S. Army's culture values current pragmatic needs and actions to achieve near-term requirements over the intellectualism and theory necessary to prepare for the future. For example, William Skelton provides a splendid glimpse of an-

ti-intellectualism within the ranks of the Army in the 1850s in the following excerpt from his study of the American profession of arms:

> Crossing the plains on an expedition to Utah [in the 1850s], Major Charles A. May searched the wagons in an effort to reduce unnecessary baggage. When he reached the wagons of the light artillery battery, Captain Henry J. Hunt proudly pointed out the box containing the battery library. "Books?!" May said in astonishment. "You say books? Whoever heard of books being hauled over the plains? What in the hell are you going to do with them?" At that moment Captain Campbell of the Dragoons came up and asked permission to carry a barrel of whiskey. "Yes, anything in reason Captain, you can take along the whiskey, but damned if these books shall go."[1]

Despite the open disdain of learning exhibited among the average officer in the ranks of the Army during that era, the Army was simultaneously establishing several institutions of professional military education. Notably one of those institutions was the School for the Application of Infantry and Cavalry, established in

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1881 and later named the Command and General Staff College, at Fort Leaven-worth, Kansas, on the edge of the same frontier that May was about to embark in the excerpt above.[2]

This dichotomous relationship persists to the present day. Although they are two sides of the same coin of learning, the tension between training and education has been one of practicality versus theory, and action versus contemplation. The tension has had real impacts on the development of the Army learning enterprise. Both ideas compete for resources in terms of time, money, and workforce to implement their goals in the hierarchy of military education and training. The distinctiveness of these philosophies of learning are best expressed by the quotation: "Train for certainty, but educate for uncertainty."[3]

Gen. Martin E. Dempsey, while serving as commanding general of the U.S. Army Training and Doctrine Command (TRADOC) from 2008 to 2001, embarked upon transforming how the Army views learning by introducing the Campaign of Learning in response to the ambiguous future of conflict described in the *U.S. Army Operating Concept*.[4] Dempsey asserted, "There are no crystal balls that can predict the demands of future armed conflict. That is why I believe our ability to learn and adapt rapidly is an institutional imperative."[5] This initial concept resulted in the development of the *Army Learning Concept for 2015* to "improve our learning model by leveraging technology without sacrificing standards so we can provide credible, rigorous, and relevant training and education for our force of combat-seasoned Soldiers and lead-ers. It argues that we must establish a continuum of learning from the time Soldiers are accessed until the time they retire."[6]

To deal with the nature of the contemporary operational environment and re-alize the goals of the *Army Learning Concept*, the Army created Army University (ArmyU). "The Army Operating Concept outlined the challenging, complex nature of armed conflict in the future. Preparing leaders for this complexity demands an improved approach to education. The Army University embodies this improved approach and serves as the intellectual foundation for Army leaders to win in this complex world."[7] In doing so, the Army acknowledged that it needed to create an enterprise of learning consisting of one culture for training and education. To drive the new culture, ArmyU required an engine for institutional learning.

Army University's Center for Teaching and Learning Excellence (CTLE) serves as that engine of learning. The CTLE does this through three primary functions. First, it develops and maintains a framework that captures what the Army wants its professional force to know about its profession. It expresses this knowledge through a core professional curriculum that spreads this knowledge throughout the Army. Second, it develops the Army's multi-organizational cadre of instructors, trainers, course/training program designers/developers into a holistic faculty competent in the science and art of adult learning. Third, it facilitates innovation across the Army enterprise supporting institutional adaptation.

Founding the Center for Teaching and Learning Excellence

The founders of ArmyU developed the concept for a CTLE from a growing best practice among civilian universities and colleges. The idea for such a center sprouted in the 1990s, known as the decade of teaching and learning in the higher education field.[8] During this decade, research in both teaching and learning blossomed with findings that promised to improve the practice of adult education and training. It did so by following a tripartite focus on incorporating faculty's general liberal education, providing a study of educational practices, and developing teaching skills with experiential exercises of the art, science, and skills of teaching.[9] Thus, centers for teaching and learning, though often called by different names, emerged in institutions across the nation and the globe.

Originally these centers were intended as focal points on campus for student learning and to provide support to faculty in their efforts to meet that need.[10] Institutions of higher education realized that the bulk of the professoriate, freshly graduated doctoral students, had extensive knowledge of their field of study and the research methods required to create new knowledge in those areas. Nonetheless, they lacked in-depth knowledge and experience in teaching theory and practice based on empirically sound findings stemming from education research.[11] The centers for teaching and learning provided new faculty with the pedagogical theory and methods needed to teach their disciplines at both the graduate and undergraduate levels. As more universities and colleges started refocusing their priorities from research to student learning, these centers took on consultation services for teacher support, funding incentives, workshops, and some developed into institutes for faculty, instructional, and organizational learning and development.

ArmyU's eight Centers of Excellence (COEs) faced a similar issue as civilian higher-education institutions regarding how to prepare its seasoned and experienced cadre to teach what they knew to their students.[12] While famous for its historic Army War College (AWC) and Command and General Staff College (CGSC), the vast bulk of the ArmyU faculty consists of cadre who are experts in their particular military field, such as artillery, infantry, or cyber but are not necessarily prepared to teach adult learners.[13] Additionally, advanced civilian degrees are not common within the preponderance of Army faculty at its COEs and schools, let alone advanced degrees in education and training. Further, all faculty, including those from the AWC and CGSC, lack a consistent enterprise method to stay abreast of the latest in adult learning sciences and to disseminate to, share with, and learn from other faculty regarding how to better educate or train the Army's student population. In evaluating how civilian institutions of higher learning developed centers to tackle such problems, the founders of ArmyU determined that it required a center of learning, like the University of Texas's Institute for Transformational Learning, if ArmyU was to realize its potential fully.

Subsequently, ArmyU created CTLE by re-organizing existing organizations within the enterprise into three divisions. The first division—the Instructional Design Division (IDD)—evolved from the School of Advanced Leadership and Tactics, which served TRADOC's proponent of the common core for select professional military education (PME) courses. IDD expanded its curriculum development functions and took on the mission to frame and maintain the Army's PME General Learning Outcomes. In doing this, IDD drives new Army professional core curricula as well as ensures the development of common competencies across the Army's officer, warrant officer, enlisted, and civilian cohorts.

A second CTLE division focused on faculty and staff development. This division integrated the Staff and Faculty Division Office from the Army Training Support Center within TRADOC, and the Faculty and Staff Division within the CGSC. This organizational integration combined the resources of these two great organizations and united the training and education approaches to facilitating learning into an adult learning model. CTLE's Faculty and Staff Division (FSDD) not only develops cadre to meet the challenges of teaching the variety of generational adults today (from Generation X to millennials) but also new teaching methods to implement the Army Learning Model (ALM).[14] These new approaches help align teaching with the curriculum developed by IDD for the core curriculum, and the branch specific training and education courses developed by the COEs and schools within the ArmyU learning enterprise.

The third division, the lynchpin of Army learning, is the Institutional Research and Assessment Division (IRAD). IRAD assumed the role of implementing, monitoring, and assessing the implementation of the ALM from the Office of Innovative Learning within the staff of TRADOC. This division serves several important functions. It facilitates the discussion and transfer of education and training best practices between IDD and FSDD, and the faculty and staff of the COEs/schools. It also facilitates the exchange of ideas and best practices with other learning-focused organizations within and outside of the Army, such as the Army Research Institute, the Advanced Distributed Learning Office of the Department of Defense's J-7 staff, and centers of teaching and learning in civilian higher education institutions.

In structuring these three learning divisions within the CTLE, ArmyU gained an engine to articulate the requirements the Army wants its professionals to learn and to provide a way to translate the requirements into an outcomes-driven and competency-based framework Army schools can use to teach their courses and programs. There is an integrated process to develop a cadre who can both train and educate the Army's professionals by facilitating the adult learning principles inherent to the ALM. CTLE is an organization developed with the capacity to not only assess current practices but to maintain the foresight to adopt and integrate new learning practices. This essay now turns to describe CTLEs three core functions in further detail.

Articulating and Teaching the Army's Professional Requirements

As a learning institution, one of the biggest challenges the Army has is identifying and articulating the professional requirements and necessary proficiency for all its members based on their experience, training, and education levels. Modern military phenomena in war such as "other-than-war operations" and counterterrorist operations made the Army question its core identity, given it still saw that identity as fighting the conventional land battle.[15] Army doctrine encapsulates leader requirements in the Army Leader Requirements Model (ALRM) as one way of articulating those professional competencies.[16] However, confusion still exists as to who is a "leader" and if the ALRM applies to all Army professionals. For example, it leaves open the question whether the ALRM applies to those in the Army Civilian Corps who provide critical professional support roles, or it if applies to the entry-level soldiers who are at the lowest rung of the hierarchical chain of command. When looking at the Army profession from a holistic perspective, these questions present a gap between what the profession practices and what the profession's education systems teach. The publication of *The U.S. Army Learning Concept for 2015*, which includes a list of nine twenty-first-century "soldier" competencies further illustrates this gap between describing what Army professional requirements are and how to teach them to all Army professionals in and out of uniform.[17] This gap became most visible in the 850-plus disaggregated general learning outcomes generated across school systems for officers, noncommissioned officers, warrant officers, and civilians to develop the nine twenty-first-century "soldier" competencies.

With the reformation of the School of Advanced Leadership and Tactics into the Instructional Design Division of CTLE, IDD addressed the divide in learning and filled in the gap of how to teach a core set of professional competencies by following the example of other professional higher education institutions. First, it conducted an environmental scan to identify all stakeholders and their various views of the problem. The stakeholders included PME course proponents from all echelons of training and education. These stakeholders included TRADOC's Initial Military Training for the Basic Officer Leaders Course, the Warrant Officer Career College, IDD for the Captains Career Course, the U.S. Army Sergeants Major Academy, the Army Management Staff College, the Institute for Noncommissioned Officer Professional Development, CGSC, and the AWC. IDD facilitated the integration of stakeholder views into four learning areas known as Army learning areas (ALAs), which led to the development of fourteen united and agreed upon general learning objectives (GLOs).[18] The GLOs translated the Army professional learning requirements into a teachable vernacular that allowed COEs/schools to develop program, course, and learning outcomes.

Further efforts by IDD to professionalize the Army's common core curriculum and integrate training and education under one learning concept included the development of the Curriculum Analysis and Development Initiative (CADI). CADI's main idea is to integrate the three learning domains (cognitive, affective, and

psychomotor), a learning rigor and relevance model, and rubrics to assess equivalent credit credentialing opportunities into a lesson plan framework. This combination allows developers of Army training and educational plans and programs to analyze, design, and develop training and education that meet the learning needs of Army professionals. The utilization of the ALA/GLOs and development of CADI help the Army learning institutions and organizations express what the Army already does well in a manner that other civilian learning institutions can recognize. In short, these initiatives serve to establish an outcomes-based and competency-driven professional curriculum for all the COEs/schools within the Army University construct.

Building a World Class Faculty: The Main Effort to Implementing the ALM

To build a world-class enterprise, ArmyU founders recognized that the Army learning institutions and organizations required a world-class faculty consisting of instructors, instructional designers, trainers, and training developers that met professional standards. In fact, one of the key strategic initiatives of ArmyU specifies to build a world-class faculty. However, saying one has a world-class faculty and having a world-class faculty are two separate things.

In universities and colleges, the quality of their faculties is determined by the production of quality research if they are designated a Carnegie Research Institution, or the relative ranking of their undergraduate and professional graduate degree programs if their mission primarily focuses on teaching. The assumption is, if its program is good at producing research and or delivering a highly ranked program of study, then by association its faculty are considered to be excellent as well. Arguably, ArmyU falls into the latter category as it is primarily focused on teaching versus research. However, no category of a professional graduate degree in the military arts and sciences exists with typical rankings such as those issued by the *U.S. News & World Report* on best degree programs.

To fulfill the action implied by the rhetoric in the faculty initiative, CTLE created an Army faculty development program that equally focused on all members of Army faculty based on their level of experience, education, and type of curriculum they taught. It integrated nationally and internationally recognized standards of teaching competencies for adult learning environments.[19] It provided a mechanism to recognize and reward its faculty. It also implemented a process for continued professional development for permanent faculty (consisting mostly of general schedule [GS] civilian members of Career Program 32) and temporary faculty (comprised of longer-term, but still temporary, Title 10 civilians and uniformed military personnel who serve faculty tours of two to three years).

To develop this program, the FSDD followed IDD's approach collaborating with all the relevant stakeholders on how to reform the current staff and faculty development process. The FSDD established various working groups to address each aspect of the Army faculty development program. Through this process, the lead members from FSDD discovered instructors received a good amount of content about adult learning, whereas designer/developers did not. In addressing this shortfall in the Army's faculty development program, one working group developed a foundational instructor course, and another working group developed a foundational curriculum/training developer course. The combination of both courses provided a holistic faculty development program that provides the principles of adult learning to both instructors and curriculum developers. This was a different approach than FSDD initially pursued, which was to build one foundational program that both instructors and designers/developers would attend. However, by listening to the field of experienced faculty and staff developers from the COEs, the working group leaders recognized that while the content had to be similar for both functional types of faculty, the content could not be the same for the two functional cohorts.

Additionally, through this integrative process of including all relevant stakeholders, the leaders of the FSDD working groups found that the application of continuing professional development, rewards, and recognition programs were not consistent throughout Army. For example, both enlisted and civilian instructors can earn badges or certificates (later certified by the American National Standards Institute), while instructors from the warrant and officer cohorts did not. The FSDD worked with the stakeholders to rewrite the Noncommissioned Officer Education System Instructor Development and Recognition Program and worked with the Career Program 32 proponent to develop a new Faculty Development and Recognition Program expanding it to all instructors.[20] Further, while opportunities existed for recognition of excellent instructing, such as the TRADOC Instructor of Year Award, no such recognition existed for instructing and training designers and developers. At the writing of this article, CTLE is developing the standards to recommend a TRADOC Designer/Developer of the Year Award. With IDD focused on developing the "what" for Army Professional Education, and the FSDD focused on the "how" to teach those requirements, the last aspect of CTLE's mission was to enhance the Army Learning Enterprise through a program to ensure innovation in learning.

Staying Ahead of the Latest in Learning Sciences and Innovations

To drive continually adaptive and innovative approaches to both faculty and professional curriculum development, the Institutional Research and Assessment Division (IRAD) of CTLE engages the field of learning science by networking externally with civilian institutions of higher learning and internally to the Army. It networks in-

ternally with Army agencies like the Army Research Institute, which researches leader development; the Office of Economic and Manpower Analysis, which researches talent management, and, the Army Research Lab, which researches the latest in military application of the cognitive sciences. IRAD's primary function is to develop a learning sciences and innovation research program to promulgate best practices and identify innovation that informs the development of learning solutions to capability gaps. IRAD's other functions include overseeing the ArmyU research assurance program, conducting learning program assessments, and acting as a proponent for the *Army Learning Concept* and Army Learning Strategy.

IRAD provides the Army learning requirements perspective to the Army Talent Management Task Force, thus ensuring talent measures include assessments of learning along the career-long learning continuum. In a related initiative, IRAD is supporting The Center for Army Leadership development of the Captains Cognitive Assessment Test (CCAT) as a validated tool for assessing officers at the grade of captain in the areas of cognition and learning motivation. Officers will use the results of the CCAT as a self-assessment for areas in which they can improve aspects of cognition and also learn new techniques to increase their motivation to learn. IRAD has also been at the forefront of ArmyU's involvement in assessing competency-based education as a strategy for improving the quality and relevance of learning across the enterprise.

In short, IRAD serves as both an evaluator of how the Army Learning enterprise is implementing the Army Learning Model and as the conduit, or network manager, that connects and facilitates the exchange of the latest in learning sciences among organizations within the Army, and between the Army and external agencies. IRAD provides the critical and necessary forethought and strategic analysis and planning, and networking required to enable CTLE to help ArmyU manage an adaptive and innovative learning enterprise that will support the Army in solving the problems identified by its operating concept.

Lessons Learned in Founding a Center for Teaching and Learning

In establishing the CTLE, its faculty and staff determined several lessons about the elements that support institutionalizing learning organizations and operating principles that such centers can rely on to foster the success of the Army learning enterprise. These lessons that members of ArmyU's CTLE identified are like those learned from other ventures in establishing centers of learning at civilian institutions. Learning is a "process of enculturation into a community of practice using social interaction among learners and between learners and teachers."[21] Given that, colleges and universities use their centers of learning to address teaching and learning strategies that most assist the learner in a specific learning environment rather than developing tools that instructors should use to manage a particular lesson or course.[22] Members of CTLE

realized that this was the same goal underlying the ALM. Those goals consist of developing the faculty-to-student and student-to-student relationships as a means of learning regardless if the classroom is within four traditional walls, a shady spot under a tree in the field in front of a butcher block of white paper, or in the digital domain of an online and distributed learning environment. Additionally, the goal includes assisting faculty to master not only content (since they are practicing experts already) but also the style and delivery of that content. Thus, ArmyU faculty are less the cause of learning within the learner but rather more the facilitators of that learning.

Another lesson identified is that the rate of innovation and their sustainability in the curriculum of Army COEs/school are enhanced if faculty develop networking connections with each other across the whole enterprise rather than view their branch/occupational skill and discipline as their only affinity group. Developing a community of adult learning professionals in the Army learning system not only helps facilitate adult learning best practices regardless of subject taught but also further professionalizes the training and education communities. This makes for better performance in the classroom and training environments and eventually makes for better learning in the Army overall.

The inverse to the last lesson is that there is no one-size-fits-all learning process. Since one of the principles of adult learning is that each adult learner is responsible for his or her learning, and the focus centers on the learner, the standards of teaching and learning become more important than standardizing the process of learning across several institutions whose context, students, and faculty are vastly different. For an institution steeped in an organizational culture that values standardization due to a belief that standardization is key to winning on the battlefield, this last lesson is probably the hardest to incorporate. Nonetheless, the move toward a learner-centric pedagogical model necessitates that the Army learning enterprise balance the individualized approach with the mass production requirements of running courses with large populations of students.

A final lesson learned is to build stakeholders in the learning process by listening to all perspectives. IDD's and FSDD's efforts in developing the GLOs and the Army's faculty development program demonstrate the value in this lesson. The CTLE occupies a unique place in the structure of the Army's learning enterprise because its mission is to address the learning requirements of the entire Army training and education community. This means that it holds a central position within the enterprise to help manage and facilitate network connections among faculty and staff offices in the Army's COEs/and schools, but more importantly, these network connections provide an indirect conduit to provide feedback from lower teaching echelons to the higher administrative echelons of ArmyU. To facilitate both future innovations to the field and feedback to policy and administrative leaders in the upper echelons of the Army learning enterprise, CTLE needs to continue to address the concerns of all constituencies-faculty from both the education and training communities, upper echelon staff and administrators, and Army civilian and military students.

Conclusion

The founding of the CTLE constitutes not only organizational change, but it also exemplifies institutional development. The CTLE will refashion the norms of Army training and education into norms of Army Learning. With the rewrites of TRADOC Regulation 350-70, *Army Learning Policy and System*, and TRADOC Pamphlet 528-8-2, *The Army Learning Concept for Training and Education 2020-2040*, the rules for how the Army learning enterprise will operate and develop the Army's agile and adaptive leaders will change to keep Army professionals on top of the latest training and education practices.[23] By creating a center for teaching and learning, the Army took a vital step toward institutionalizing learning not only within resident education and training systems but also throughout the Army. ❧

NOTES

1. Don Snider and Lloyd Matthews, *The Future of the Army Profession, Revised and Expanded*, 2nd ed. (New York: McGraw-Hill, 2005), 36; William B. Skelton, *An American Profession of Arms: The Army Officer Corps, 1784-1861* (Lawrence, KS: University Press of Kansas, 1993), 238.

2. Cynthia Ann Watson, *Military Education: A Reference Handbook* (Westport, CT: Greenwood Publishing Group, 2007).

3. Bradley L. Carter, "No 'Holidays from History': Adult Learning, Professional Military Education, and Teaching History," in *Military Culture and Education: Current Intersections of Academic and Military Cultures*, ed. Douglas Higbee (Farnham, UK: Ashgate Publishing, 2010), 170.

4. U.S. Training and Doctrine Command (TRADOC) Pamphlet (TP) 525-3-1, *U.S. Army Operating Concept: Win in a Complex World* (Fort Eustis, VA: TRADOC, 19 August 2010 [now obsolete]), superseded by TP 525-3-1, *U.S. Army Operating Concept: Win in a Complex World*, 31 October 2014.

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6. TP 525-8-2, *The U.S. Army Learning Concept for 2015* (Fort Monroe, VA: TRADOC, 6 June 2011), i, http://www.benning.army.mil/mcoe/dotd/courses/content/pdf/TRADOC%20Pam%20525-8-2%20ALM%202015.pdf.

7. "The Army University White Paper: Educating Leaders to Win in a Complex World" (Fort Leavenworth, KS: United States Army Combined Arms Center, 25 February 2015), ii.

8. Martin J. Finkelstein, Robert K. Seal, and Jack H. Schuster, *The New Academic Generation: A Profession in Transformation* (Baltimore: Johns Hopkins University Press, 1998).

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10. Richard G. Tiberius, "A Brief History of Educational Development: Implications for Teachers and Developers," *To Improve the Academy* 20 (2001): 20–38.

11. Patricia Kalivoda, Josef Broder, and William K. Jackson, "Establishing a Teaching Academy: Cultivation of Learning at a Research University Campus," *To Improve the Academy* 21 (2002): 79–92; Adrianna Kezar, "Faculty Developers Using the National Survey of Student Engagement (NSSE) To Be Change Agents. National Roundtable Series" (Washington, DC: American Association for Higher Education, December 2002), http://archive.org/details/ERIC_ED482219.

12. Each of the centers of excellence have functional responsibility for branch specific education and training. This branch-specific knowledge is the military disciplines, such as infantry, armor, and artillery, are equivalent to academic disciplines of colleges within a university-type system.

13. Both schools are accredited by regional civilian accrediting bodies such as the Higher Learning Commission and each have faculty with credentials that include both masters and doctoral degrees.

14. TP 525-8-2, *The U.S. Army Learning Concept for 2015.* The Army Learning Model endeavors to transform the learner from a passive receptor of information to a collaborator in the educational process by converting the classroom from instructor centric to learner centric, instructor-facilitated problem solving, employs experiential and reflective learning methods.

15. Don Snider and Gayle L. Watkins, *The Future of the Army Profession*, 1st ed. (New York: McGraw-Hill Primis Custom Publishing, 2002).

16. Army Doctrine Publication 6-22, *Army Leadership* (Washington, DC: U.S. Government Publishing Office, August 2012).

17. TP 525-8-2, *The U.S. Army Learning Concept for 2015.*

18. "Educating Leaders to Win in a Complex World," General Learning Outcomes White Paper (Fort Leavenworth, KS: Army University, 25 March 2016).

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21. Tiberius, "A Brief History of Educational Development," 30.

22. Devorah Lieberman, "Beyond Faculty Development: How Centers for Teaching and Learning Can Be Laboratories for Learning," *New Directions for Higher Education* 2005, no. 131 (Fall 2005), 87–98.

23. TR 350-70, *Army Learning and Policy Systems* (Fort Eustis, VA: TRADOC, 10 July 2017); TP 525-8-2, *The US Army Learning Concept for Training and Education 2020-2040* (Fort Eustis, VA: TRADOC, 13 April 2017).