

The Right Education and Training at the Right Time

Deciding What to Teach and Ensuring It Happens

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Abstract

In our professional military education, do we really teach what we need to teach? Are we really teaching “the right education and training at the right time?” Do we really work to link courses across a career to ensure that these courses are sequential and progressive? The Accountable Instructional System provides a process to address these very questions, as well as developing the approach to ensure that student assessment and program evaluation provide evidence that the right education and training takes place at the right time in a career. The authors also provide an approach to integrate the “language of professional educators” with the “language of the profession of arms” using the concept of the commander’s intent (purpose, end state, and key tasks) to describe the purpose, outcomes, and terminal learning objectives required for curriculum design.

A Sequential and Progressive Continuum of Learning

In the October 2017 edition of the *Journal of Military Learning*, Maj. Gen. John Kem, Brig. Gen. Gene LeBoeuf, and Dr. Jim Martin wrote the lead article titled “Answering the Hottest Question in Army Education: What is Army University?” There were a number of key points from that article worthy of highlighting. First, in the Army, training and education are accomplished in a sequential and progressive fashion along a career-long learning continuum. Second, this continuum of training and education is not limited to instruction in formal schools but spans all learning experiences in the “learning enterprise,” which includes classrooms, the workplace, and self-directed learning. Third, the key component across this continuum of training and education is the development of “habits of mind” to improve and optimize in-

tellectual performance. Lastly, Army University was formed as the entity responsible for governing both the training and education activities.

Army University, drawing upon recognized educational best practices, has the charter to synchronize across the entire learning enterprise to ensure that learning is indeed sequential and progressive, which improves the quality and rigor of the curricula, integrates and synchronizes faculty and curriculum development, and creates new business practices to implement policies and new governance models to improve assessment practices and learning performance.¹

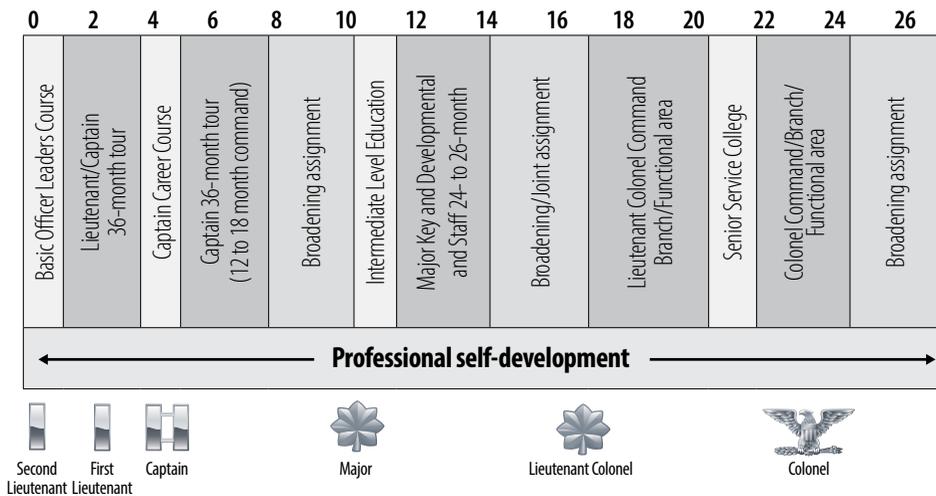
Army University's ambitious strategic agenda touches all four Army cohorts (non-commissioned officers, warrant officers, officers, and civilians) and encompasses all three "learning domains": institutional training and education, organizational training and education, and self-development training and education. Ensuring that everyone in the Army has a sequential and progressive continuum of learning is the essence of getting the "right education and training at the right time."

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(Figure from Department of the Army Pamphlet 600-3, *Commissioned Officer Professional Development and Career Management*, December 2014)

Figure 1. Officer Career Timeline

This article proposes a conceptual framework for Army learning management that uses the language of our profession to explain educational concepts. Specifically, we use the doctrinal components of commander’s intent to identify the particular elements of a curriculum or program of instruction essential in synchronizing learning along a cohort learning continuum. Although we focus on officer professional military education (PME), we believe that the conceptual framework is a model that can be used for all cohorts and domains. We will also focus on three of the components of Army University’s charter: (1) developing intellectual habits of mind, (2) improving the quality and rigor of the curricula, and (3) creating new business practices to implement policies and new governance models to improve assessment practices and learning performance.

Officer Professional Military Education

The December 2014 edition of Department of the Army Pamphlet (DA Pam) 600-3, *Commissioned Officer Professional Development and Career Management*, included a chart titled “Officer Career Timeline—Growing Leaders.” This chart, shown in figure 1, depicts how officers are professionally developed “through a deliberate, continuous, sequential, and progressive process including training, education and experiences nested with counseling and mentoring.”² The updated version of DA Pam 600-3 (2017) states, “Leader development is achieved through the career-long synthesis of the training, education, and experiences acquired through opportunities in the institutional, operational, and self-development domains, supported by peer



and developmental relationships.”³ Interestingly, the updated DA Pam 600-3 does not include the Officer Career Timeline chart; however, the chart is a good depiction of the development of an officer through a sequential and progressive series of institutional and operational assignments, with professional self-development as a continuous effort throughout an officer’s career.

Figure 1 (on page 5) depicts a typical assignment path for a commissioned officer, which includes a balance of institutional assignments (training and education) and operational assignments (including broadening and joint assignments), while professional self-development occurs continuously throughout an officer’s career.

There are four major institutional assignments throughout the career. The first is the Basic Officer Leaders Course (BOLC), which is taken as a new lieutenant. This course has the objective “to develop technically competent and confident platoon leaders, regardless of branch, who are grounded in leadership, basic technical and tactical skill proficiency, are physically and mentally strong, and embody the warrior ethos.”⁴ The next professional development course, the Captain Career Course (CCC), includes the objective to prepare “company grade officers to command Soldiers at the company, troop, or battery level, and to serve as staff officers at battalion and brigade levels.”⁵

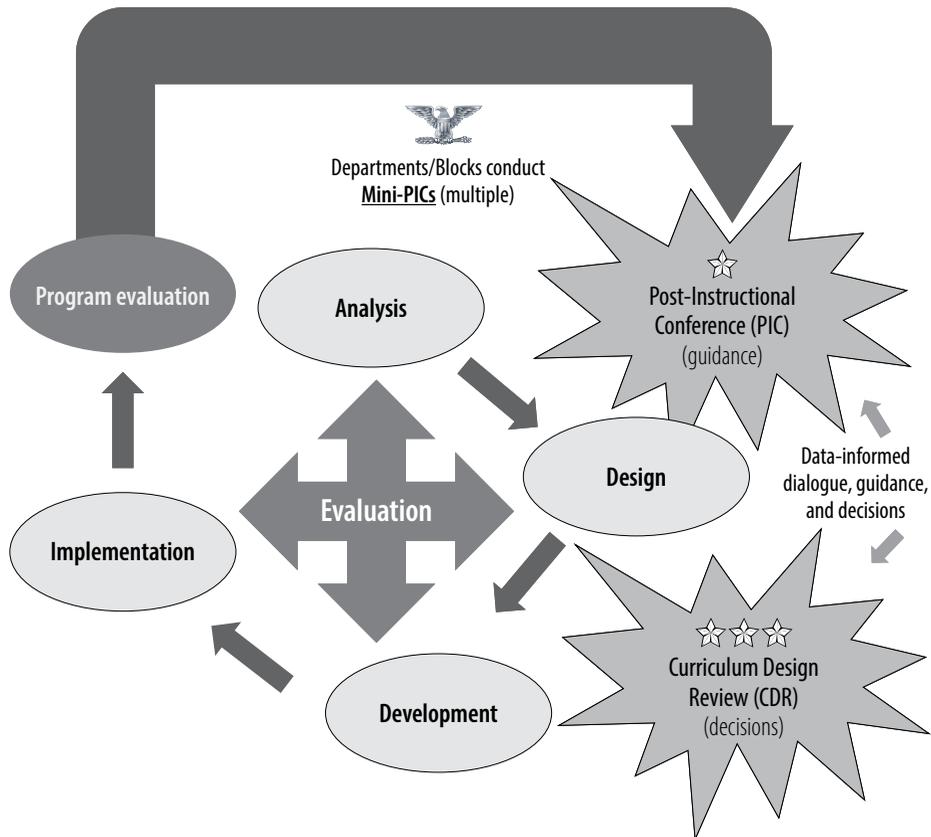
Upon selection for major, officers attend Intermediate Level Education (ILE), which is “designed to prepare new field grade officers for their next 10 years of service” and “produces field grade officers with a warrior ethos and Joint, expeditionary mindset, who are grounded in warfighting doctrine, and who have the technical, tactical, and leadership competencies to be successful at more senior levels in their respective branch or FA [functional area].”⁶ Finally, officers may attend the Senior Service College (SSC), which “provides senior level PME and leader development training” and “prepares military, civilian, and international leaders to assume strategic leadership responsibilities in military or national security organizations.”⁷

These four different institutional training and education assignments anchor the sequential and progressive continuum of learning for officers. The schools are intended to prepare officers for future assignments and are intended to complement operational (unit) assignments, as well as professional self-development. As discussed earlier, Army University has the charter to synchronize across the entire learning enterprise to ensure that learning is indeed sequential and progressive—that is, to ensure the right education and training occur at the right time in an officer’s career. To accomplish this charter, it is necessary for all in the learning enterprise to understand how their institutional training and education fits within the overall *intent* of officer professional development.



The Commander’s Intent

Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command*, describes the concept of the *commander’s intent* as “a clear and concise expression of the purpose



(Figure from U. S. Army Command and General Staff College Bulletin No. 930, *Curriculum Development: The Accountable Instructional System*, August 2017)

Figure 2. The Accountable Instructional System Model

of the operation and the desired military end state that supports mission command, provides focus to the staff, and helps subordinate and supporting commanders act to achieve the commander’s desired results without further orders, even when the operation does not unfold as planned.”⁸ The ADRP further describes the commander’s intent:

The commander’s intent becomes the basis on which staffs and subordinate leaders develop plans and orders that transform thought into action. A well-crafted commander’s intent conveys a clear image of the operation’s purpose, key tasks, and the desired outcome. The commander’s intent provides a focus for subordinates to coordinate their separate efforts. Commanders personally prepare their commander’s intent. When possible, they deliver it in person. Face-to-face delivery ensures mutual understanding of what the commander wants by allowing immediate clarification of specific points.



Individuals can then exercise disciplined initiative within the overarching guidance provided in the commander's intent.⁹

There are three components of a commander's intent: the purpose (the overall reason and broader purpose of the operation), key tasks (what specific actions the commander directs must be accomplished), and the desired end state or outcome (the conditions that should exist at the completion of the operations). These three components give subordinates a clear understanding of what the commander wants and provide some general boundaries on the amount of discretion subordinates have in accomplishing the mission. This same process of receiving the commander's intent (purpose, key tasks, and end state/outcomes) is very similar to the academic process that results in guidance from the school commandant.

The Accountable Instructional System

At Army University and the U.S. Army Command and General Staff College (CGSC), curriculum is designed using the Accountable Instructional System (AIS). The AIS follows the five phases of the ADDIE model: analysis, design, development, implementation, and evaluation. Each of these phases address a specific step in curriculum design: (1) analyze and determine instructional needs, (2) design curriculum to meet the identified needs, (3) develop instructional materials and courseware to support stated goals and objectives, (4) implement developed courseware, and (5) evaluate effectiveness of the educational process and product.¹⁰ Figure 2 (on page 7) depicts the CGSC AIS Model.¹¹ (Note: The CGSC AIS is a "system" in the sense that it connects CGSC's curriculum development process with other CGSC academic governance processes. Specifically, the AIS ensures faculty and senior leaders' engagement in curriculum development and program improvement decision-making as required in Higher Learning Commission's Assumed Practices and the Chairman of the Joint Chiefs of Staff's (CJCS's) Officer Professional Military Education Policy.¹²

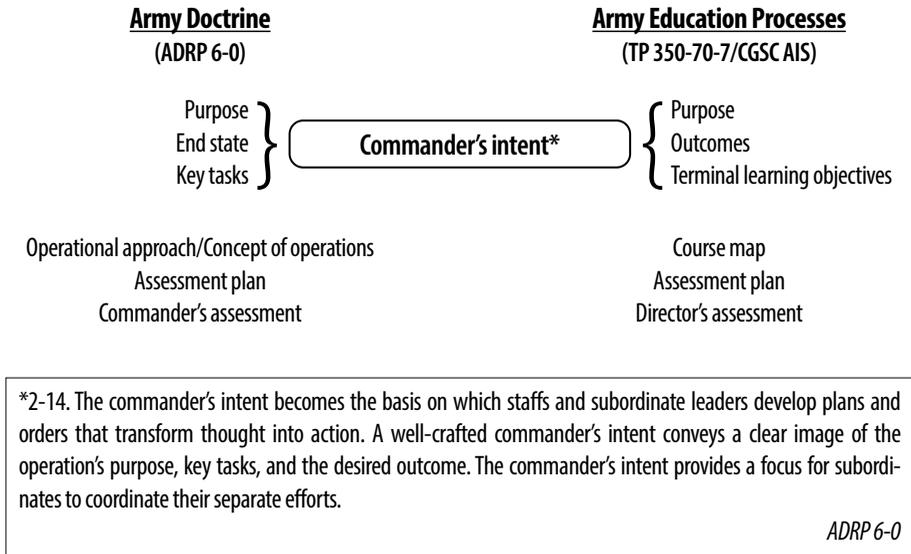
Immediately after the completion of a block of instruction or course, instructional departments hold a series of after-action reviews to capture impressions from the classes. Following this process, departments and schools conduct a series of *mini-post-instructional conferences* (mini-PICs) to discuss the results of the analysis of previous instruction with the respective school director. These mini-PICs are the "first impressions" of the curriculum and focus on the initial analysis resulting from direct and indirect assessment of the student learning results.¹³

A key component of the AIS is to receive academic guidance from the leadership of the college. Between the analysis and design phases, the *post-instructional conference* (PIC) is held, with faculty, curriculum developers, and the leadership of the college. The PIC presents the purpose of the course, how the course links to educational outcomes,



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Command and General Staff College (CGSC) curriculum design is grounded in Army doctrine and sound educational principles.



(Figure developed by Kem)

Figure 3. The Accountable Instructional System and the Commander's Intent

how the terminal learning objectives of the course link to learning outcomes, and the assessment plan for the course. The PIC is normally presented to the CGSC deputy commandant, who provides guidance on the continued design of the curriculum.¹⁴

A second key component of the AIS is to receive decisions from the leadership of the college. Between the design and development phases, there is a *curriculum design review* (CDR). The CDR is the approval process for the course, gaining the approval of the purpose, course outcomes, and the terminal learning objectives. The CDR is normally presented to the CGSC commandant, who provides the approval of the course design so that the course can be developed by curriculum developers.¹⁵ During the CDR, the leadership of the college also reviews the overall course map (how the course flows) and the assessment plan (how the school will ensure accomplishment of course outcomes and learning objectives), and it will be presented with the school director's assessment of the overall course.

The AIS is an iterative process, focused on managing change within the curriculum and ensuring that the curriculum is focused on the appropriate purpose for the course, the educational outcomes to be achieved, and the learning objectives to drive curriculum development. The AIS is a disciplined approach to enable leaders to make evidence-based and data-informed decisions to manage change in the curriculum.



Table. Mapping Purpose, End State, and Key Tasks

Purpose	
To educate and train field grade leaders to serve as staff officers and commanders with the ability to build teams, lead organizations, and integrate unified land operations with joint, interagency, intergovernmental, and multinational partners in complex and uncertain environments.	
Common core outcomes ("end state")	
1	Have met JPME-1 qualification standards
2	Possess the knowledge and skills to be an effective joint and Army staff officer
3	Are officers who can understand war, the spectrum of conflict, and the complexity of the operational environment (history, culture, ethics, and geography)
4	Can meet organizational-level leadership challenges
5	Are critical and creative thinkers who can apply solutions to operational problems in a volatile, uncertain, complex, or ambiguous environment.
6	Can communicate concepts with clarity and precision in both written and oral forms
7	Are self-aware and motivated to continue learning and improving throughout their careers

(Table from Command and General Staff Officer's Course C400 Mini-PIC presentation, slide four, 8 December 2017)

Linking the Accountable Instructional System to the Commander's Intent

The conceptual bases of the military approach to the commander's intent and the academic process of AIS are quite similar. For military operations, the commander personally approves the commander's intent, consisting of purpose, key tasks, and end state. These three components of the commander's intent provide purpose and direction for the planners and operators, and enable the accomplishment of the military mission.



Table. Mapping Purpose, End State, and Key Tasks (continued)

Terminal learning objectives (TLOs) ("key tasks")		Level learn	Outcome
1	Explain how field grade officers lead the development of ethical organizations and leaders to achieve results	Syn	3,4,5
2	Incorporate critical and creative thinking skills	Syn	5,6
3	Analyze historical context to inform professional military judgment	Analysis	3,5,6
4	Analyze the nature of war and the causes, consequences, and contexts of change in modern warfare	Analysis	3,5,6
5	Analyze the considerations, functions, capabilities, limitations, and doctrine of joint forces/unified action partners in joint, multinational, and interagency operations.	Analysis	1,2,3,5,6
6	Apply solutions to operational problems using operational art and joint doctrine	Analysis	1,2,5,6
7	Apply U.S. Army doctrine	Apply	2,5,6
8	Demonstrate the process to develop, resource, and integrate Army capabilities for Combatant Commanders	Comp	1,2
9	Demonstrate how military forces, in conjunction with other instruments of national power, further U.S. national interests in the international security environment	Apply	1,2,3
10	Incorporate effective communication skills	Syn	6

(Table from Command and General Staff Officer's Course C400 Mini-PIC presentation, slide four, 8 December 2017)

As the planning for a military operation is developed, the commander will also be directly involved in the approval of the operational approach and the concept of operations, the assessment plan for the operation, and the continual assessment to anticipate and adapt to changing circumstances as part of the operations process.¹⁶



The process is similar in the AIS. In the AIS, the school commandant personally approves the purpose, outcomes, and terminal learning objectives for a course, which occurs formally in the CDR. These three components provide purpose and direction for the development of curriculum, and enable curriculum developers and faculty to transform the school commandant's thoughts into action. During the CDR, the commandant will also be briefed on the course map, the assessment plan, and the school director's assessment.

Figure 3 (on page 9) shows the relationship between the concept of the commander's intent and the AIS process. The concepts used in curriculum design draw upon both of these similar approaches, bridging Army doctrine and the Army education process. As a result, the commander/commandant drives the design for curriculum by providing purpose and direction.

The table (on pages 10–11) shows an example of an initial slide during the curriculum design review that shows the crosswalk between the purpose, outcomes/end state, and terminal learning objectives/key tasks.

Synchronizing Across the Continuum of Learning

The AIS works extremely well for developing curriculum within a school for a particular course; however, the system also has the added benefit of providing useful information for synchronizing across the entire learning enterprise. For officer PME, each of the four major institutional courses (BOLC, CCC, ILE, and SSC) have stated purposes for their curriculum. Each of the four courses have objectives that are tied directly to operational assignments and specific timeframes in an officer's career. For example, the CCC has the objective to prepare "company grade officers to command Soldiers at the company, troop, or battery level, and to serve as staff officers at battalion and brigade levels."¹⁷ ILE has the objective "to prepare new field grade officers for their next 10 years of service."¹⁸ As a result, the purpose for the major institutional courses is already well established and confirmed in each of the CDRs for the respective courses.

The second piece of the puzzle to synchronize across the continuum of learning is the identification of the specific course outcomes, or the conditions that should exist at the completion of the course. In the AIS, these are normally depicted in a statement such as, "At the conclusion of the course, graduates are able to" This provides a specific measure of the competencies that are achieved for every graduate of a specific course. This information can also establish the foundation or "starting point" for officers when they enter the next level of professional military education.

Finally, the terminal learning objectives provide specific demonstrated knowledge, skills, abilities, and behaviors that have been achieved by graduates of a particular course. Learning objectives also provide a measure of the cognitive level



achieved in each of these competencies (for example, whether a student has achieved a demonstrated level of comprehension of a particular concept or has achieved a demonstrated level of application of the concept).

Knowing the specific components of the purpose, outcomes, and terminal learning objectives in each course is critical to ensure that learning across the continuum is indeed sequential and progressive. The courses are designed in a proper sequence and build on each other in a progressive manner, complemented by operational assignments and professional self-development.

Assessment and Program Evaluation: Ensuring Learning Happens

To ensure that PIC and CDR discussions and decisions are data-informed, there must be an assessment of student learning to provide evidence that students have indeed achieved requisite learning objectives. The first consideration is whether the learning objectives and course outcomes are properly nested. By necessity, achieving all of a course's enabling learning objectives should ensure that all of the terminal learning objectives are achieved. Likewise, achieving all of a course's terminal learning objectives should ensure that the course outcomes are achieved.

There are two processes necessary to ensure this takes place; the first is in curriculum design, to ensure that the course is designed with a "building block" approach to nest and link enabling learning objectives meet terminal learning objectives, and finally learning outcomes. This requires a crosswalk of the curriculum, especially for topics (such as critical thinking and written communications) that may be represented throughout the course design.

The second process is to ensure that an appropriate assessment plan is developed that addresses both outcomes and learning objectives. This assessment should include both direct and indirect assessment evidence. Direct assessment (consisting of clear and compelling evidence of what students are learning) should be the primary approach. Examples of direct assessment include student's written papers scored using a rubric with clear standards, direct observations of student behaviors by expert faculty, or "capstone" experiences such as research projects and presentations scored using a rubric with clear standards. Direct assessment measures should also be explicitly tied to specific learning objectives and course outcomes.

Indirect assessment (consisting of signs that students are probably learning but exactly how what or how much they are learning is less clear) include grades without an accompanying rubric or scoring guides and student self-ratings in surveys on how much they have learned. These indirect assessment measures are useful for gaining insight into learning but are not sufficient to ensure that the learning actually took place. As such, indirect assessment measures should be considered as a supporting effort to the primary effort of direct assessments.



There is, however, a distinction between learning assessment and program evaluation. Assessment of student learning is focused on individual student achievement of learning objectives and outcomes; program evaluation is focused on the effectiveness or value of the program. Program evaluation is achieved when individual learning assessments are aggregated to show the overall effectiveness of the course.

When civilian and military accrediting bodies (such as the J7's Process for the Accreditation of Joint Education, or PAJE) evaluate member institutions' assessment processes, they are most interested in program-level assessment, or program evaluation. The Joint Institutional Research and Evaluation Coordinating Committee (JIRE-CC)—a subcommittee of the CJCS's Military Education Coordination Council (MECC)—maintains a set of guidelines for PAJE teams' use when evaluating an institution's assessment of student learning processes. These guidelines include the following statement: "Effective assessment programs are useful, planned, systematic, sustained, and make use of existing processes as much as possible while limiting the amount of additional effort required of faculty and students."¹⁹ The guidelines state:

An effective assessment program is useful. Data gathered through direct and indirect assessment measures should be meaningful and directly aid in curricular decision-making processes.

An effective assessment program is planned. Assessment of students' learning for the coming academic year is carefully determined, documented, and communicated with all stakeholders. Institutions should include discussions of assessment results in published agendas and minutes for appropriate governance bodies.

An effective assessment program is sustained. This occurs by grounding the assessments plan in the institutional culture, educating all stakeholders, building staff and faculty support, collecting feedback, and continuously improving processes. Sustainability occurs when everyone in the institution acknowledges the existence of the assessment program, understands its intent, and supports its processes and goals.

Finally, an effective assessment program leverages existing processes. Assessment activities should minimize the burden placed on students, faculty, and staff. Organizations develop assessments that are focused, deliberate, and systemic while taking advantage of the institution's culture and existing processes and governance structures. Appropriate automated processes can be a significant part of assessment programs.²⁰

Student assessment of learning and program evaluation are critically important in ensuring that the purpose of a course is met, that the outcomes are achieved,



and that the course has been effective in achieving overall course terminal learning objectives. This process ensures that what we say we have taught has indeed been learned. The AIS process ensures that we teach the right things at the right time and that we are focused on sustaining the overall rigor and quality of the course.

Pulling It All Together: The Right Education and Training at the Right Time

As stated in the first section, Army University, drawing upon recognized educational best practices, has the charter to synchronize across the entire learning enterprise to ensure that learning is indeed sequential and progressive, to improve the quality and rigor of the curricula, to integrate and synchronize faculty and curriculum development, and to create new business practices to implement policies and new governance models to improve assessment practices and learning performance.²¹

As discussed above, the AIS is a way for Army University schools, colleges, and academies to execute program-level ADDIE cycles. Post-instructional conferences and CDRs assure leaders that program outcomes were met, and that a program's curriculum continues to meet the needs of the Army. Curriculum design reviews produce commandant-approved program purpose statements, outcomes, and terminal learning objectives, which, together, serve two essential roles: (1) they focus course learning and assessment activities for the coming academic year, and (2) they enable Army University to better integrate and synchronize learning across the enterprise.

The “secret sauce” to synchronize learning across the enterprise is no real secret—it is a disciplined approach to curriculum design that starts with each lesson, progressively addresses blocks and courses, and then aligns student learning outcomes along each cohort's career continuum of professional military education.

The draft U.S. Army Training and Doctrine Command (TRADOC) Pamphlet (TP) 350-70-7, *Army Educational Processes*, provides the following:

Army educational institutions are adaptive learning organizations. They employ outcomes-focused processes—based on sound education principles—to sustain relevance and ensure effectiveness. Army educational institutions and schools cannot stay static, as their educational product changes with the Army mission set and the operational environment. Army educational institutions and schools must establish and maintain systems that produce the necessary data for decision-making based on an assessment of student learning and the evaluation of overall institutional performance.²² 



Notes

1. Maj. Gen. John S. Kem, Brig. Gen. Eugene J. LeBoeuf, and James B. Martin, "Answering the Hottest Question in Army Education: What Is Army University?," *Journal of Military Learning* 1, no. 2 (2017): 3–10.
2. Department of the Army Pamphlet (DA Pam) 600-3, *Commissioned Officer Professional Development and Career Management* (Washington, DC: U.S. Government Publishing Office [GPO], 3 December 2014, obsolete), 11, 17.
3. DA Pam 600-3, *Officer Professional Development and Career Management* (Washington, DC: U.S. GPO, 26 June 2017), 5.
4. *Ibid.*, 7.
5. *Ibid.*, 8.
6. *Ibid.*
7. *Ibid.*
8. Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command* (Washington, DC: U.S. GPO, 17 May 2012), para. 2-12.
9. *Ibid.*, para. 2-14.
10. United States Army Command and General Staff College (CGSC), CGSC Bulletin No. 930, *Curriculum Development: The Accountable Instructional System* (August 2017), 3.
11. *Ibid.*
12. Higher Learning Commission, "Assumed Practices," HLC Policy Number CRRT.B.10.020, last revised September 2017, accessed 8 March 2017, <http://www.hlcommission.org/Policies/assumed-practices.html>; Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 1800.01E, *Officer Professional Military Education Policy* (Washington, DC: U.S. GPO, 29 May 2015).
13. CGSC Bulletin No. 930, *Curriculum Development*, 5.
14. *Ibid.*, 7–8.
15. *Ibid.*, 9.
16. ADRP 5-0, *The Operations Process* (Washington, DC: U.S. GPO, 17 May 2012), para. 1-30.
17. DA Pam 600-3, *Officer Professional Development* (2017), 8.
18. *Ibid.*
19. Joint Institutional Research and Evaluation Coordinating Committee (JIRE-CC), *Guidelines for the Process of Accreditation of Joint Education* (PAJE) (December 2017), 4.
20. Both JIRE-CC *Guidelines for the Process of Accreditation of Joint Education* (December 2017) and draft U.S. Army Training and Doctrine Command (TRADOC) Pamphlet (TP) 350-70-7, *Army Education Processes* (Fort Eustis, VA: TRADOC, forthcoming), 27–28, identify the same four characteristics of effective assessment programs. Paragraph 6-2 of TP 350-70-7 will include "indicators of effectiveness" under each characteristic.
21. Kem, LeBoeuf, and Martin, "Answering the Hottest Question," 3–10.
22. TP 350-70-7, *Army Educational Processes* (forthcoming), 7.