

## Part V: The Impact Report of the Quality Enhancement Plan

### 1. Succinct description of the QEP, initial goals and intended outcomes

Air University's Quality Enhancement Plan (QEP) "Cross-Culturally Competent Airmen" sought to develop Airmen systematically who are better able to meet the global operational needs of the US Air Force. The QEP defined cross-cultural competence as *the ability to quickly and accurately comprehend, then appropriately and effectively act in a culturally complex environment to achieve the desired effect.*

The QEP's vision, *to develop cross-culturally competent Airmen of all ranks and occupational specialties*, established a broad-based and university-wide approach to learning. The QEP mission statement charged AU *to create and implement a scientifically sound and institutionally sustainable plan to develop and assess cross-cultural competence across the continuum of education.* This emphasized measurable learning based on academic research ensuring that changes would endure over the long term.

The overarching goal of the QEP was to *prepare graduates who are better able to perform their responsibilities in culturally-complex environments.* This helped focus efforts on improving job performance after graduation. It also linked graduates' performance to the environment in which they will operate, shifting the understanding of culture from a task that students must perform to a condition within which they work.

More specifically, the QEP emphasized student learning of broadly transferable cultural knowledge, skills and attitudes. It treated foreign language and regional studies as opportunities to apply culture-general learning, rather than as the main focus. The QEP's curriculum and assessment was based on a faculty-generated model of cross-cultural competence that entailed four components. These became the Plan's four student learning outcomes (SLOs):

*SLO 1.* Knowledge (declarative) of foundational culture-general ideas and principles. Students will understand the rationale for and conceptual building blocks of cross-cultural competence, including: cultural concepts and definitions; the US Air Force model of cross-cultural competence and its relevance; and the broad domains of culture.

*SLO 2.* Skills (behaviors and procedural knowledge) necessary to work effectively in cross-cultural contexts. Students will be able to work more effectively with individuals from other cultural backgrounds by learning to: establish, build, and maintain inter-personal relations; communicate effectively; and, negotiate and manage conflicts.

*SLO 3.* Positive attitudes toward cultural differences that predispose learners to effective learning and action. Students will be more predisposed to learn and apply culture-general knowledge and skills to culture-specific contexts as a result of greater: openness, relativism, and empathy; belief that change in attitudes is possible; and acceptance of ambiguity and lack of closure.

*SLO 4.* The ability to transfer or apply culture-general learning effectively in specific cultural contexts. Airmen will be able to apply the culture-general model to the types of challenges they face when deployed around the world.

Given the considerable differences in the objectives and curriculum of AU's schools and programs, each one that participated in the QEP selected the most appropriate outcomes to focus on and set preliminary targets for student learning.

## **2. Significant changes made to the QEP**

AU's QEP originally organized on four lines of activity. Each activity was modified based on programmatic feedback and assessment results collected during implementation. A new line of effort was added as the plan evolved during implementation. The most significant changes for each follow:

Curriculum: The original QEP identified six programs (four for officers and two for enlisted Airmen) as participants. These numbers quickly and unexpectedly swelled:

*Summer 2010.* After the first year of implementation, two more programs – the International Officer School and the Non-commissioned Officer Academy – entered the QEP. This expanded the role of international students by preparing them to study and teach (peer-to-peer) in AU's officer education programs and dramatically increased the number of enlisted Airmen we reached.

*Summer 2011.* The following year, two other programs signed-on: a second community college course on cross-cultural communication was launched to build on the successes of the introductory course and the Air Force Fellows Program integrated cross-cultural competence in its orientation program.

*Summer 2012.* For the 2013 Academic Year, the Airman Leadership School and Air Command and Staff College Distance Learning program joined, while the Air Force Fellows Program withdrew its participation.

*Summer 2013.* During the final year of implementation, the QEP integrated an executive education and pre-deployment program for generals who were chosen to deploy to the Middle East.

By the summer of 2013, the number of participating programs had grown to 12 (seven for officers and five for enlisted Airmen), from under-division undergraduate to executive education, while more than tripling the number of students involved. Such rapid expansion was interpreted as indicative of programmatic success and increasing acceptance of the QEP across the university community. Nevertheless, this rapid growth, together with administrative hurdles, created significant challenges to the original phased timeline, in our ability to conduct rigorous assessment in all programs, and in some other supporting lines of activity.

Consequently, we revised the timeline: The first year of implementation (2009-10) was treated as Phase 0, which was used to pilot curricula in two programs and experiment with assessment techniques in one of them. This shifted Phase 1 to Academic Years 2010-11 and 2011-12, with the final two years of the QEP making up Phase 2. As programs joined the QEP, most followed a general pattern of developing initial curriculum in Year 1, revising their curriculum while piloting assessment in Year 2, and finally reaching a sustainable approach to curriculum and assessment in Year 3. Lastly, changes to the Squadron Officer School beyond the QEP required updates to the cultural aspects of its curriculum, which shifted it from Phase 1 to 2.

Assessment: In 2009, the university's assessment of cross-cultural competence was still quite rudimentary. The QEP's closed-loop assessment process let us better define three of the Student Learning Outcomes, hone the assessment techniques we employed, and gradually integrate those efforts with established institutional effectiveness processes:

*SLO 2.* The cross-cultural skills addressed by the QEP were expanded from the original procedural skill and behavioral focus (i.e., communication and negotiation) to include cognitive elements (e.g., perspective taking – first treated as an attitude; self-efficacy – added

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based on scholarly research; and planning and decision making – far more common activities topics of study for AU’s more senior students). These cognitive skills were assessed using publically available and previously validated scales.<sup>1,2,3</sup>

*SLO 3.* Cross-cultural attitudes proved to be slower to change and more difficult to measure than first anticipated. The Intercultural Development Inventory (IDI) was to be administered to stratified samples of students across several programs to gauge attitudinal development. Yet, the significant growth in participating programs, numbers of students, and the requirement for all IDI feedback to be provided individually quickly exceeded the QEP team’s time and financial capacities. Consequently, during Phase 2, the IDI was used primarily with small groups such as electives and executive education, while existing validated attitudinal scales for “willingness to engage across cultures” and “flexibility” were added.<sup>4</sup>

*SLO 4.* Transfer and application of culture-general learning to specific cultural contexts was challenging to integrate with existing programs and required significant innovation to assess in on-line programs. Many of the simulations we originally planned to develop and use proved to be too expensive, slow to change, and contextually or theoretically divergent from the curriculum. Instead, the QEP team adopted the Situational Judgment Test (SJT) as the primary assessment technique.<sup>5,6</sup> SJTs applied in both residential and distance learning programs, but could not be integrated with assessment efforts until relatively late in the QEP.

The original anticipated targets for learning focused on percentage changes in pre/post assessment measures. The team learned that this technique did not permit us to gauge the significance of learning or to compare results across SLOs, techniques, programs, and years. Therefore, in 2011-12 we added a common target of statistical significance to demonstrate confidence that improvements in pre/post assessments were not due to chance or random error. This facilitated comparison and validated that learning was due to intervention, but failed to measure the strengths of relationship and results influenced by sample sizes.

In 2012-13 we experimented with effect size (or practical significance) to measure the magnitude of improvements to learning.<sup>7</sup> Not all QEP data lent themselves to this technique. However, initial results were encouraging. So, for 2013-14 we set a general target of both statistical significance and a medium- to large-effect size. This allowed the QEP team to streamline efforts in the more numerous Phase 2 programs and to develop a more longitudinal

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<sup>1</sup> Gehlbach, H. 2004. “Social Perspective Taking: a facilitating aptitude for conflict resolution, historical empathy and social studies achievement.” *Theory and Research in Social Education* 32(1): 39-55.

<sup>2</sup> Van Dyne, L., S. Ang and C. Koh. 2008. “Development and Validation of the CQS” in Handbook of Cultural Intelligence: theory, measurement and applications. New York: Sharpe. Pp. 16-38.

<sup>3</sup> Peterson, J.C., T. Milstein, Y.W. Chen and M. Nakazawa. 2011. “Self-Efficacy in Intercultural Communication: the development and validation of a sojourners’ scale.” *Journal of International and Intercultural Communication* 4(4): 290-309.

<sup>4</sup> Van Der Zee, K.I. and J.P. Van Oudenhoven. 2000. “The Multicultural Personality Questionnaire: a multidimensional instrument of multicultural effectiveness.” *European Journal of Personality* 14(4): 291-309.

<sup>5</sup> Osland, J.S. and A. Bird. 2000. “Beyond Sophisticated Stereotyping: cultural sensemaking in context” *Academy of Management Executive* 14: 65-77.

<sup>6</sup> Lang, J.W.B. and P.D. Bliese. 2009. “General Mental Ability and Two Types of Adaptation to Unforeseen Change: applying discontinuous growth models to the task-change paradigm.” *Journal of Applied Psychology* 94: 411-428.

<sup>7</sup> Cohen, J. 1988. Statistical Power Analysis for the Behavioral Sciences (2<sup>nd</sup> ed.). Hillsdale: Erlbaum.

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data set by conducting retrospective analysis of previously collected assessment results from Phase I programs.

Faculty and staff: A larger body of specialized faculty was required as the scope of the QEP grew. While additional positions were allocated, bureaucratic hiring processes impeded our ability to maximize some of these curricular and assessment opportunities. Further, faculty transitions at times impeded continuity of both curriculum and assessment. The diverse nature and varying lengths of the university’s programs – spanning the continuum of enlisted through general officer ranks – made implementation of proposed university-wide faculty development efforts difficult to sustain.

Learning resources: The on-site Reaffirmation Committee observed that “by combining QEP culture-general education with pre-deployment training...the Air Force will have a powerful set of tools to enhance the performance of Airmen.” This inspired AU to integrate three programs into the QEP in ways that were not originally envisioned: First, Expeditionary Culture Field Guides (ECFGs), pocket-sized guides to countries where Airmen deploy, were developed using the same model as QEP-related curricula.<sup>8</sup> This directly supported SLOs 1 (general knowledge), 2 (general skills) and 4 (transfer and application). Second, mandatory on-line culture training was developed using the QEP approach. While extremely brief (45 minutes) and not assessed to the same degree as other elements of the Plan, it reinforced the basic concepts of SLOs 1 and 2 to roughly 230,000 Airmen each year.<sup>9</sup> Third, the US Air Force’s career-long Language Enabled Airman Program (LEAP) adopted the QEP’s approach to teach foreign language speakers about culture in keeping with SLO 4.<sup>10</sup>

Administration: The on-site Reaffirmation Committee’s sole recommendation in 2009 was related to tracking and synchronizing this ambitious and complex QEP. AU responded by establishing annual QEP reviews.<sup>11</sup> Preparing these and other reports, monitoring progress across numerous programs, and keeping the multiple lines of activity synchronized soon came to constitute a new line of activity. In 2013, QEP administration was integrated with the revised university-wide academic governance system,<sup>12</sup> and the following year was included as an area of responsibility for the newly formed Faculty Senate.<sup>13</sup> Finally, AU faculty experts advised and helped draft several Air Force-wide policies and regulatory guidance documents.

### 3. The QEP’s direct impact on student learning and supporting environment

The report of the on-site Reaffirmation Committee noted that AU’s QEP was particularly ambitious, concluding that members knew “of no other US higher education institution...that has embarked on a plan of this magnitude.” As the previous section described, the scope and complexity grew considerably during implementation. Consequently, the QEP’s full impact on

<sup>8</sup> Twenty-two ECFGs were developed during implementation of the QEP: Afghanistan, Iraq, Ethiopia, Kenya, Botswana, Ghana, Mali, Morocco, Nigeria, Rwanda, Senegal, Sudan/S. Sudan, Mauritania, S. Africa, Tanzania, Uganda, Algeria, Angola, Djibouti, Gabon and Niger. Six more were published since Summer 2014: Burkina Faso, Burundi, Cameroon, D.R. Congo, Tunisia and Republic of Korea. Five additional ECFGs are in progress as of the writing of this Impact Report: Colombia, India, Japan, Malaysia and Thailand. All are accessible on-line at [http://culture.af.mil/products\\_fieldguides.aspx](http://culture.af.mil/products_fieldguides.aspx) and will soon be available via a mobile application.

<sup>9</sup> See [http://culture.af.mil/courses\\_adls.aspx](http://culture.af.mil/courses_adls.aspx).

<sup>10</sup> See <http://www.au.af.mil/au/culture/leap/>.

<sup>11</sup> See *Annual Reviews* at <http://www.au.af.mil/au/culture/qep/>.

<sup>12</sup> Air University. 2013. Instruction 36-2606: *Academic Corporate Process*. 22 October.

<sup>13</sup> Air University. 2014. Instruction 36-2631: *Faculty Senate*. 20 May.

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student learning cannot be addressed in this brief report. Further, given the changes to the timeline and phased implementation described previously, no data will be presented for Academic Year 2009-10. Instead, assessment results from the three programs participating in Phase 1 (2010-11 and 2011-12) will be summarized to establish a learning baseline. Then the six (three officer and three enlisted) programs for which more robust assessment data exists during Phase 2 (2012-13 and 2013-14) will be compared against these results.

Results from four programs will not be addressed: First, the International Officer School was not assessed separately because it prepares students from partner nations for subsequent study in one of three programs where cross-cultural learning was assessed. Second, as previously mentioned, the Air Force Fellows Programs withdrew from the QEP for administrative reasons after piloting the program during the 2011-12 Academic Year. Third, Air Command and Staff College’s Distance Learning program did not generate data that was compatible with the effect size methodology employed for assessment. Fourth, the pre-deployment and executive education program for generals deploying to the Middle East was added in the QEP’s final year and therefore had an insufficient sample size to generate valid and reliable assessment results.

Learning baseline in Phase 1 programs: Robust assessment data exists for three of the QEP’s initial programs: The on-line Introduction to Culture (ITC) course offered for Community College of the Air Force (CCAF) credit; the Introduction to Cross-Cultural Communication course also offered on-line for CCAF credit; and the non-degree credit Basic Officer Training program at Officer Training School (OTS). Each developed curriculum and assessed all four SLOs. Effect sizes for SLOs 1, 2, and 3 were calculated using pre/post results ( $\eta^2$ ), while measuring SLO 4 (application or transfer) required correlation analysis ( $r^2$ ). Cohen’s guidelines (fn 7) allowed results comparison as follows:

SLO	Program	Academic Year				
		2010-11	2011-12	2012-13	2013-14	2014-15
1 (Knowledge)	ITC	*	0.71	0.24	0.46	0.76
	CCC		0.69	0.52	0.66	0.56
	OTS		0.13	0.69	0.71	0.81
2 (Skills)	ITC		0.52	0.47	0.40	0.26
	CCC		0.49	0.46	0.50	0.54
	OTS		0.25	0.14	0.37	*
3 (Attitudes)	ITC		0.16	0.10	0.05	0.01
	CCC		0.14	0.14	0.10	0.18
	OTS		0.14	0.09	0.04	0.00
4 (Application)	ITC				0.11	0.26
	CCC				0.04	0.05
	OTS					0.09
		<i>Phase 0</i>	<i>Phase 1</i>		<i>Phase 2</i>	

\* Data not compatible with effect size methodology

Effect Size Guidelines: Small=0.01-0.05 | Medium=0.06-0.13 | Large=0.14+

The effect size of learning related to SLO 1 and SLO 2 for these three programs was uniformly large over four years, with one medium (borderline large) result in first year of the

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OTS program's participation. This met the QEP target. ***From these assessment results, we conclude that these three Phase 1 programs had a substantial impact on student learning related to cultural knowledge and cross-cultural skills.***

Results for learning related to positive attitudes contributing to Cross-Cultural Competence (SLO 3) were mixed. All three programs generated large effect sizes in 2010-11, though results were generally lower than those for SLOs 1 and 2. The following year, Introduction to Culture and Officer Training School programs had medium effect sizes while one remained large. A similar decrease occurred in 2012-13, with one program rebounding in the final year. The consistency of affective learning for the Introduction to Cross-Cultural Communication course was likely the result of both faculty emphasis and a smaller, more self-selected group of students taking the course (930 enrolled during 2013-14, compared with 2,200 enrolled for Introduction to Culture the same year). We also hypothesize that concurrent refinements to the scales used to measure attitudes contributed to the general decline in effect sizes. ***From these assessments results, we conclude that these three Phase 1 programs had a moderate impact on culture-related affective student learning.***

Finally, results for learning related to students' abilities to transfer or apply general knowledge and skills to specific cultural contexts (SLO 4) was mixed. Initial efforts to assess this in 2012-13 produced small- and medium-effect sizes. In the final year of the QEP the medium-effect size of Introduction to Culture increased, the low result of the Introduction to Cross-Cultural Communication course was consistent and a new program (Officer Training School) yielded a medium effect size. Again, the Introduction to Culture and Introduction to Cross-Cultural Competence results are likely due to intentional curriculum design decisions by the courses' professors of record. Further, the strong performance in the Officer Training School program suggests that lessons from on-line instruction could be leveraged to enhance student learning of this SLO in residential programs. ***From these assessment results, we conclude that these three Phase 1 programs had a moderate impact on students' abilities to transfer or apply general cultural learning to specific cultural contexts and scenarios.***

Benchmarking of learning in Phase 2 programs: Six programs produced robust assessment results during the latter part of the QEP. Given the different foci of their curricula, enlisted and officer educational efforts are presented separately.

*Enlisted education.* QEP-related learning was integrated into three professional education programs required of all enlisted Airmen as they progress through the rank structure. Airman Leadership School (ALS) prepares graduates to serve as front-line supervisors; the Non-commissioned Officer Academy (NCOA) prepares graduates to lead units; and the Senior Non-commissioned Officer Academy (SNCOA) prepares graduates to lead the enlisted force. QEP-related curriculum in all three emphasized SLO 1 (cultural knowledge) in increasing degrees of complexity and contexts appropriate for the students' ranks. This sequencing of curriculum across an enlisted Airman's career represents a significant accomplishment of the QEP and reflects the work of dedicated educators at the Barnes Center for Enlisted Education. Assessment results are presented here (bolded and boxed in brown), below the Phase 1 baseline data:

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SLO	Program	Academic Year				
		2009-10	2010-11	2011-12	2012-13	2013-14
<b>1 (Knowledge)</b>	ITC	*	0.71	0.24	0.46	0.76
	CCC		0.69	0.52	0.66	0.56
	OTS		0.13	0.69	0.71	0.81
	<b>ALS</b>				<b>0.72</b>	<b>0.75</b>
	<b>NCOA</b>			<b>0.83</b>	<b>0.75</b>	<b>0.72</b>
	<b>SNCOA</b>			<b>0.78</b>	<b>0.79</b>	*
		<i>Phase 0</i>	<i>Phase 1</i>		<i>Phase 2</i>	

\* Data not compatible with effect size methodology

Effect Size Guidelines: Small=0.01-0.05 | Medium=0.06-0.13 | Large=0.14+

The effect size of learning related to SLO 1 for all three enlisted programs was uniformly large over two to three years. This met the QEP target. These results approximated and at times exceeded those of Phase 1 programs. Initial successes may have been somewhat exaggerated owing to the small number of items used to assess the enlisted programs; however, as QEP assessment efforts matured, the effects became quite comparable with the baseline data. ***From these assessment results, we conclude that these three Phase 2 enlisted programs had a substantial impact on student learning of cultural knowledge.***

*Officer education.* QEP-related learning was integrated with three professional education programs required of all Air Force officers as they progress in rank: Squadron Officer School (SOS) prepares graduates to lead Air Force units; the Air Command and Staff College Residential program (ACSC-R) prepares graduates to develop, employ, and command airpower in joint, multinational, and interagency operations; and the Air War College prepares graduates to serve as strategic national security leaders. QEP-related curriculum in all three emphasized SLO 2 (cross-cultural skills), and assessment results are presented here (bolded and boxed in brown), below the Phase 1 baseline data:

SLO	Course	Academic Year				
		2009-10	2010-11	2011-12	2012-13	2013-14
<b>2 (Skills)</b>	ITC	*	0.52	0.47	0.40	0.26
	CCC		0.49	0.46	0.50	0.54
	OTS		0.25	0.14	0.37	*
	<b>SOS</b>				<b>0.07</b>	<b>0.12</b>
	<b>ACSC-R</b>				<b>0.17</b>	<b>0.24</b>
	<b>AWC</b>				<b>0.18</b>	<b>0.43</b>
		<i>Phase 0</i>	<i>Phase 1</i>		<i>Phase 2</i>	

\* Data not compatible with effect size methodology

Effect Size Guidelines: Small=0.01-0.05 | Medium=0.06-0.13 | Large=0.14+

The effect sizes of learning related to SLO2 for all three officer programs were medium to large. While results were not as dramatic for these schools as the Phase 1 programs, all were statistically significant, with four yielding large results and two medium, meeting the QEP

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target. *From these assessment results, we conclude that these three Phase 2 officer programs had a substantial impact on student learning of cross-cultural skills.*

Environment supporting student learning: Accomplishments in three of the QEP's lines of activity beyond curriculum and assessment also merit mention as having made a significant positive impact on the environment that supports student learning at AU:

*Faculty/staff.* Hiring a centralized body of faculty who are specialized in cultural learning – seven at its zenith – proved critical to the success of the QEP's curricular and assessment efforts. Early on, AU also invested heavily in external professional development opportunities for more than two dozen faculty members, many of them specialized in areas other than culture. As a result, every program could both develop organic expertise, if it chose to, and draw on a deeper bench of professors when necessary. While neither the hiring nor professional development efforts could be sustained in the QEP's latter years owing to government-wide travel and hiring restrictions, these were essential to the Plan's early success.

*Learning resources.* In addition to the development and publication of Expeditionary Culture Field Guides described in Section 2, AU also committed tens of thousands of dollars per year to expand and sustain its QEP-related collection at the Muir S. Fairchild Research Information Center. The cross-cultural references now available on-line and in print at AU are second-to-none in the Department of Defense, supporting faculty and student research and improved curriculum development.

*Administration/institutionalization.* Specialized faculty members made substantial contributions to writing and publishing US Air Force-wide policies and regulatory guidance, which has in turn helped institutionalize QEP-related efforts.<sup>14,15,16</sup> Consequently, cross-cultural learning is no longer seen as an idiosyncratic or episodic undertaking at AU tied to a particular conflict, but rather as part of the institution's core mission, helping prepare graduates to perform their responsibilities in culturally-complex environments.

*In summary, these assessment results demonstrate that AU's QEP had a substantial impact on student learning related to cultural knowledge and cross-cultural skills, a moderate impact on students' attitudinal learning, and a moderate impact on enhancing students' abilities to apply general cultural learning to specific cultural contexts and scenarios. Further, the consistency of these empirical findings suggests that curricular interventions not included in this Impact Report or that were not rigorously assessed (to include on-line training of hundreds of thousands of Airmen per year) also had a positive impact on student learning. Finally, considerable advances were made in the environment supporting student learning – particularly hiring and developing specialized faculty, and general faculty and staff development, publishing tailored learning resources, and issuing Air Force-wide guidance institutionalizing cross-cultural learning. Taken collectively, these data lead us to conclude that AU's QEP achieved its ambitious goals and outcomes.*

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<sup>14</sup> US Air Force. 2012. Policy Directive 36-40: *Language, Region and Culture Program*. 16 October.

<sup>15</sup> US Air Force. 2014. Instruction 36-4001: *Language, Regional Expertise and Culture Program*. 2 September.

<sup>16</sup> Air Education and Training Command. Forthcoming. *US Air Force Language, Regional Expertise and Culture Learning Strategic Plan for the General Purpose Force*.

#### 4. What AU has learned as a result of the QEP

The QEP experience at Air University generated numerous lessons that are relevant beyond this specific topic and process. Several were the result of wise decisions by AU leaders, others were attributable to good luck, and some were learned through initial missteps. As a result, some lessons were integrated with this QEP's execution, many will be documented in university policies and procedures prior to the next QEP, and a few are informing the university-wide transformation planning initiated by the current President. The most salient lessons are presented here, organized under the five lines of activity:

Administration: Governance of any university-wide undertaking should be an initial planning consideration. Existing processes and bodies should be used to the greatest extent possible. Annual reviews are useful, but insufficient, and should be supplemented with mid-year progress checks. The Director and the financial resources should be under the direct supervision of the Vice President for Academic Affairs. Accountability mechanisms should be created to ensure that planned curricular and assessment efforts are undertaken despite competing priorities and limited resources. While these points may appear self-evident, they were not part of AU's original Plan, and correcting these initial shortfalls consumed time and energy that could have been better spent on other aspects that more directly contributed to enhancing student learning. On a more positive note, the Board of Visitors engaged with the QEP since the initial planning stage, providing invaluable academic and programmatic insight.

Curriculum: This line of activity is one of AU's greatest strengths and yielded many positive lessons. First, producing new courseware that achieves common outcomes is far easier than revising existing curricula. There is a strong temptation to graft new outcomes onto existing courses with only superficial changes. Similarly, common concepts must be tailored to the level of learning and application for each program at a professional school like AU, rather than simply repeating or expanding content as a student progresses in her or his career. Distance learning is a powerful mechanism to reach vast numbers of students; however, facilitated programs are quite expensive and un-facilitated instruction is more appropriate for lower-division undergraduate instruction. One area identified but not fully addressed is that while electives provide an excellent venue to innovate with new concepts, there should be an established mechanism to integrate key elements with the core curriculum, thereby maximizing learning for the largest number of students possible.

Assessment: The central tension that this QEP eventually resolved was how to establish valid and shared assessment targets for the previously mentioned tailored curriculum. The employment of established scales greatly improved assessment validity, but often had to be instrumented and delivered in new, creative ways. Measures of attitudinal change should be addressed over longer periods, to allow sufficient time for these slow-growth attributes to develop. The use of SJTs to gauge transference of learning in a controlled environment is one of the QEP's most significant innovations, yet much work remains before the results can be reported with the same confidence as those for knowledge and skill learning. Finally, the most significant lesson about assessment was the power of using effect sizes to compare the practical significance of learning across SLOs, programs, and years. While not a panacea, this was a vital and fruitful innovation.

Faculty/Staff: Several areas for improvement were identified. First, while AU eventually succeeded in recruiting a sizeable body of specialized faculty, the processes were reminiscent of the industrial era and our ability to retain these professionals has faltered. Some of the reasons for faculty departures are unavoidable, but this also points to the larger challenges of federal

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post-secondary educational institutions. Furloughs, hiring freezes and travel restrictions further complicated the situation. Finally, several lessons were identified that are being addressed as part of planning for AU Transformation: First, mechanisms should be established to increase the sharing of faculty expertise across 10-month programs. Second, a university-wide schedule or calendar would enable this and other types of collaboration (e.g., faculty development). Finally, specialized faculty members' greatest contributions to the QEP were through curriculum design and faculty development. The university is committed to facilitating flexibility for faculty across the enterprise.

Learning Resources: Low-tech resources were far more popular, practical, useful, and sustainable than first anticipated. These ranged from printed Expeditionary Culture Field Guides to off-the-shelf educational games. Collectively, these learning resources helped translate academic concepts into practical tools, bridging the gaps between the classroom and library where Airmen learn and the global environment in which they apply their learning. In brief, the QEP team observed that sometimes the best learning resources are not the most technologically advanced ones.

The on-site Reaffirmation Committee's Report concluded that "Air University's QEP has the potential to be truly transformative. Further, this QEP can potentially serve as a model for cross-cultural competence development beyond AU." Indeed, in addition to helping transform AU and the US Air Force, perhaps the QEP's greatest measure of success is that over the past six years, elements of its approach have been adopted by the US Army, US Navy, and US Marine Corps. In a real sense, the implementation of the university's QEP exceeded the ambitious vision articulated in the original proposal.