

Technical Report 1284

**Training, Developing, and Assessing
Cross-Cultural Competence in Military Personnel**

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April 2011



**United States Army Research Institute
for the Behavioral and Social Sciences**

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REPORT DOCUMENTATION PAGE

1. REPORT DATE (dd-mm-yy) April 2011			2. REPORT TYPE Final			3. DATES COVERED (from. . . to) June 2010-December 2010		
4. TITLE AND SUBTITLE Training, Developing, and Assessing Cross-Cultural Competence in Soldiers						5a. CONTRACT OR GRANT NUMBER DASW01-03-C-0010		
						5b. PROGRAM ELEMENT NUMBER 622785		
6. AUTHOR(S): Paula Caligiuri (Rutgers University), Ray Noe (Ohio State University), Riall Nolan (Purdue University), Ann Marie Ryan (Michigan State University), and Fritz Drasgow (University of Illinois)						5c. PROJECT NUMBER A790		
						5d. TASK NUMBER 401		
						5e. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences ATTN: DAPE-ARI-BR 2511 Jefferson Davis Highway Arlington, VA 22202-3926						8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences ATTN: DAPE-ARI-BR 2511 Jefferson Davis Highway Arlington, VA 22202-3926						10. MONITOR ACRONYM ARI		
						11. MONITOR REPORT NUMBER Technical Report 1284		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.								
13. SUPPLEMENTARY NOTES Subject Matter POC: Allison Abbe								
14. ABSTRACT (<i>Maximum 200 words</i>): This report provides information and recommendations regarding how the Army might train, develop and assess cross-cultural competence of Soldiers. Findings are presented in four main sections. The first section discusses the importance of cross-cultural competence to mission accomplishment and describes two facets of cross-cultural competence: cultural learning and cultural agility. Next, methods for developing and sustaining these facets are provided. These methods include an overall learning system that blurs the lines between operational and institutional learning experiences, as well as more specific techniques and practices for cultural learning and cultural agility. The third section discusses the importance of assessing cross-cultural competence and addresses the questions of <i>who</i> and <i>what</i> should be assessed and <i>how</i> assessments might be conducted. The final section of the report summarizes recommendations regarding training, development, and assessment and highlights key resource needs, anticipated challenges, and next steps.								
15. SUBJECT TERMS cross-cultural competence, cross-cultural competence training, cross-cultural competence development, cross-cultural competence assessment, cultural intelligence, cultural learning, cultural agility								
SECURITY CLASSIFICATION			19. LIMITATION OF ABSTRACT	20. NUMBER OF PAGES	21. RESPONSIBLE PERSON Ellen Kinzer Technical Publication Specialist 703-545-4225			
OF	16. REPORT	17. ABSTRACT						
Unclassified	Unclassified	Unclassified	Unlimited	74				

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April 2011

**Army Project Number
622785A790**

**Personnel, Performance
and Training Technology**

Approved for public release; distribution is unlimited.

TRAINING, DEVELOPING, AND ASSESSING CROSS-CULTURAL COMPETENCE IN MILITARY PERSONNEL

EXECUTIVE SUMMARY

Research Requirement:

To support efforts to train and develop military personnel for the socio-cultural component of operations, this research aimed to identify learning outcomes and methods for developing culture-general capabilities that apply in any intercultural setting, whether in interactions with host nation populations or with coalition partners. The Office of Naval Research provided funding for this research to help inform training development for the socio-cultural competencies needed for mission performance.

Procedure:

The U.S. Army Research Institute assembled a panel of experts in the areas of expatriate performance, training, international education and development, and assessment to generate a set of considerations and recommendations. The panelists collaborated on the current report to apply principles and methods from their disciplines to the problem of preparing military personnel to operate in culturally complex situations.

Findings:

This report provides information and recommendations regarding how the Army might train, develop and assess cross-cultural competence of Soldiers. Findings are presented in four main sections. The first section discusses the importance of cross-cultural competence to mission accomplishment and describes two facets of cross-cultural competence: cultural learning and cultural agility. Next, methods for developing and sustaining these facets are provided. The third section discusses the importance of assessing cross-cultural competence and addresses the questions of *who* and *what* should be assessed and *how* the assessment might be conducted. The final section of the report summarizes recommendations regarding training, development, and assessment and highlights key resource needs, anticipated challenges, and next steps.

One major finding of this effort was that cross-cultural competence has two important facets: cultural learning and cultural agility. Cultural learning enables Service members to quickly gain an understanding of the socio-cultural context of operations, and cultural agility provides the ability to respond effectively in situations of cultural diversity. Experiential and observational learning are particularly instrumental in building these abilities. An overall learning system would incorporate this social and contextual learning along with the guided learning typical of training and education and would blur the lines between operational and institutional development. This blended approach would support continuous learning over a career, consistent with the Army Learning Concept for 2015.

Findings also highlight the need for assessment of cultural learning and development for several purposes, not only for training evaluation, but also potentially for assignment to roles with high intercultural demands, for assessing training needs, and/or for assessing individual or unit readiness. Multiple assessment methods or tools will likely be needed to address the range of purposes and relevant learning outcomes. Assessment tools must have good psychometric properties for the intended population and purpose, and this report includes several recommendations for developing valid assessment tools to support institutional goals for cultural learning and development.

Utilization and Dissemination of Findings:

These findings can inform the content and structure of training and development for cultural capabilities in the Army and other Services. This research outlined some learning outcomes that cultural training and development should target and provided principles and methods for effective development that extends beyond traditional training venues and offered recommendations for assessment as a critical component of training and development efforts.

TRAINING, DEVELOPING, AND ASSESSING CROSS-CULTURAL COMPETENCE IN MILITARY PERSONNEL

CONTENTS

	Page
DEFINING THE LEARNING DOMAIN	2
Defining Culture and Cross-Cultural Competence	2
Cultural Learning Competence	6
Cultural Agility	7
How We Adjust to New Cultures	9
Techniques and Practices for Cultural Learning	11
Techniques and Practices for Cultural Agility	15
TRAINING AND DEVELOPING CROSS-CULTURAL COMPETENCE	16
Learning Outcomes	16
A Continuous Learning System for Developing Cross-Cultural Competence	19
Guided Learning and Development	22
Social and Contextual Learning	23
Using and Contributing to the Learning System: A Blended Approach	27
Training and Development Considerations	29
ASSESSING CROSS-CULTURAL COMPETENCE	32
Need for and Purposes of Assessments	32
Outcomes to Assess	34
Specifications for Assessing Learning	35
Methods of Assessment	38
Considerations in Assessment Development	41
Parameters of Assessments	44
Administration Considerations	48
Assessment Recommendations	49
OTHER RECOMMENDATIONS AND NEXT STEPS	53
CONCLUSION	55
REFERENCES	57

LIST OF TABLES

TABLE 1: CAPABILITIES PROVIDED BY CROSS-CULTURAL COMPETENCE.....4
TABLE 2: CROSS-CULTURAL COMPETENCE FACILITATORS8
TABLE 3: LEARNING OUTCOMES OF CROSS-CULTURAL COMPETENCE.....18
TABLE 4: EXAMPLE SKELETAL OUTLINE OF TEST SPECIFICATION.....37

LIST OF FIGURES

FIGURE 1: STAGES OF CULTURAL LEARNING10
FIGURE 2: A LEARNING SYSTEM FOR DEVELOPING CROSS-CULTURAL
COMPETENCE.....21
FIGURE 3: METHODS OF ASSESSING CROSS-CULTURAL COMPETENCE40
FIGURE 4: WHEN, WHO, AND HOW OF ASSESSMENTS45

LIST OF APPENDICES

APPENDIX A: HUMAN RESOURCE PRACTICES FOR DEVELOPING CROSS-
CULTURAL COMPETENCE64

TRAINING, DEVELOPING, AND ASSESSING CROSS-CULTURAL COMPETENCE IN MILITARY PERSONNEL

“We can expect that asymmetric warfare will be the mainstay of the contemporary battlefield for some time . . . Success will be less a matter of imposing one’s will and more a function of shaping behavior – of friends, adversaries, and most importantly, the people in between.”

-- Secretary of Defense Robert Gates, November 26, 2007

Current military operations in Iraq and Afghanistan have highlighted the need for Soldiers to interact effectively with local populations in order to successfully carry out their missions. It is now generally agreed among Army leadership that cross-cultural competence needs to be a priority for today’s Soldiers, for a variety of reasons.

The U.S. Army today engages in a variety of different missions, each with different requirements: conventional combat, counterinsurgency, peacekeeping, stability and reconstruction, humanitarian assistance, and disaster relief. Missions can shift and change rapidly. All of these will occur (a) in collaboration with different cultural groups; (b) among different cultural groups; or (c) against different cultural groups.

At the same time, it is harder to predict with certainty where the Army will be needed next, what they will be doing there, and with whom. Soldiers will need to operate in unfamiliar situations where they do not necessarily have experience, and where the other people also operating in that situation – as friend or foe – will have very different values, beliefs, behavior patterns, and desires from them. In these situations, neither our military might nor our good intentions will necessarily be sufficient to safeguard our interests and those of our friends. As President Barack Obama noted in a speech to the Veterans of Foreign Wars, “. . . in the 21st century, military strength will be measured not only by the weapons our troops carry, but by the languages they speak and the cultures that they understand” (Obama, Aug 2009).

Army units operate within and among populations that are culturally very different from themselves. In addition, the Army is already itself culturally diverse and encounters a wide range of other culturally diverse groups, including allies (e.g., NATO troops, non-government organizations, and civilians), as well as enemies. Future military activities – whether for peacekeeping or warfighting -- will require our Soldiers to be able to form relationships, build trust, communicate, and collaborate with people of greatly different backgrounds. The skill-set required to do this is what we mean by “cross-cultural competence.”

In recognition of the role of and demands on Army units, the Army has adopted strategy, policy, and doctrine to prepare personnel for the socio-cultural context of operations. The Army Culture and Foreign Language Strategy (Department of the Army, 2009), the Army Learning Concept for 2015 (U.S. Army Training and Doctrine Command (TRADOC), 2010), and the Army Capstone Concept (U.S. Army TRADOC, 2009) all emphasize the importance of leaders and Soldiers developing the ability to work effectively

in culturally unfamiliar settings. The Army now demands greater speed in decision-making, and at lower levels, from units in the field. The need to become cross-culturally competent thus becomes **both a life-saving skill and an enabler of mission success**. This requires Soldiers to have the ability to (a) survive in the first few days of their deployment in theatre, and then to (b) continue to learn and become progressively more culturally agile over time.

This report provides information and recommendations regarding how the Army might train, develop and assess cross-cultural competence of Soldiers. The report is divided into four main sections. The first section discusses the importance of cross-cultural competence to mission accomplishment. Next, two facets of cross-cultural competence are described – cultural learning and cultural agility; methods for developing and sustaining these facets are provided. The third section discusses the importance of assessing cross-cultural competence and addresses the questions of *who* and *what* should be assessed and *how* the assessment might be conducted. The final section of the report summarizes recommendations regarding training, development and assessment and highlights key resource needs, anticipated challenges, and next steps.

DEFINING THE LEARNING DOMAIN

Defining Culture and Cross-Cultural Competence

Culture, “the way we do things around here,” is a shared *worldview* used by a group to make sense of, and manage, the environment around them. All human societies have culture. A group’s culture is *learned* and *shared* by group members, and transmitted to new members, whether they are children or immigrants. Culture is highly *interconnected*, in the sense that its “parts” are linked; change one aspect of culture, and other changes follow. Culture is relatively *stable*, but highly *adaptive*. Culture can and will change with circumstances. Culture has three main components:

1. the *things* people make and use (called artifacts);
2. the ways people *behave* (including language); and
3. the *ideas* people have.

Artifacts and behaviors are visible, part of what we might call *surface culture*. This includes such things as spoken language, architecture, dance, art, the clothes people wear, and how they portray emotion.

Although these are for the most part public, and language is widely accessible, they are but the surface manifestations of deeper aspects of culture – values, norms, and beliefs. *Deep culture* includes such things as notions of time, of humanity’s place in the moral universe, of concepts of the appropriate role for men and women, and what makes great leaders great.

Deep culture influences surface culture in many ways, for example, through sets of categories. Culture can in some ways be seen as a fairly complex set of categories, arranged in structures, and with rules which govern their arrangements. All cultures have categories covering, for example, “good to eat/not good to eat,” “people we marry/people we don’t marry,” and “words we can say in public/words we shouldn’t say in public.” These surface categories are informed, or generated, by deeper values, beliefs, and norms, some of which people may find difficult to articulate.

In this sense, culture is similar to an iceberg; most of it is hidden under the surface. Culture is not a fixed set of behaviors – a list of do’s and don’ts -- and individuals are not ‘bound’ by culture. Culture is a shared *understanding*; it is the context and raw materials for social performance, not the performance task *per se*.

Culture is therefore *transactional*; established through interactive performances with others. Such performances are highly variable, depending on time, place, audience and other factors. Interaction *within* any culture is a kind of mutually organized performance requiring a high degree of skill. Social encounters *across* cultures often resemble plays in which at least one actor does not know his lines. In such encounters, it is not so much that things are different, but that nearly *everything* is different. A new cultural environment is both total – it is everywhere – and invasive – it is usually not possible to ignore for very long. This sometimes produces what we colloquially call “culture shock;”

“The shock comes from the sudden immersion in the lifeways of a group different from yourself. Suddenly you do not know the rules anymore. You do not know how to interpret the stream of motions and noises that surround you. You have no idea what is expected of you. Many of the assumptions that form the bedrock of your existence are mercilessly ripped out from under you (Agar, 1980, p. 50, as cited in Wolcott, 2001, p. 94).”

In such a situation, it is hard at first to make important distinctions, since everything is so different and unfamiliar. Anthropologists know, for example, that in the early stages of fieldwork in an unfamiliar culture, it is often difficult for them to distinguish between a “typical” villager and one who is mentally disabled, or between “solid citizens” and marginals. Compare this to Soldiers, who need to distinguish friend from foe, often at a moment’s notice.

In thinking about cross-cultural competence, then, it is important to understand that it is unlike other competencies. Cross-cultural competence is *not* the knowledge of or recitation of cultural “facts” about other people or nations. It is not having the language skills of a given region. Although both are useful and helpful in developing cross-cultural competence, they are not sufficient.

Culture is the context and not the task itself; it is a framework for understanding what behaviors or skills to leverage and which to minimize depending on the nuances of any particular situation. Operating effectively across cultures is based, in large part, on an individual’s ability to tailor such skills and behaviors based on cues from their

environment. The importance of the interaction between culture and the individual as related to effective performance distinguishes cross-cultural competency models from more traditional competency models. This distinction is critical when considering a learning system to help Soldiers and leaders develop cross-cultural competence. Relative to other performance domains, successful performance in an intercultural context may show greater variability; the appropriate response may depend more on situational factors than for other contexts.

Viewed in this way, cross-cultural competence has two components: the ability to learn about another culture (cultural learning) and the ability to use what one knows (cultural agility). **Cultural learning** involves gaining understanding of the salient aspects of a new and unfamiliar cultural environment, together with its underlying rationale **Cultural agility** is the use of this understanding to quickly, comfortably, and effectively work with people from different cultures and in multicultural settings. See Table 1 for examples of what it means for a Soldier to have cross-cultural competence.

Table 1
Capabilities Provided by Cross-Cultural Competence

What would cross-culturally competent Soldiers look like?

- They understand themselves and those around them in cultural terms, giving them a perspective advantage.
 - They understand the ‘basics’ of culture across societies, and why these differ.
 - They understand why and how culture operates in daily life, how it frames and shapes choices and perceptions.
 - They understand how and why culture is critical to the success of their missions.
 - They understand how and why culture is critical for their safety and the safety of others.
 - They have a basic tool kit of discovery techniques for learning cultural specifics in their location of assignment.
 - They have both the capability and the motivation to share their learning with others in their unit to strengthen their overall ability to understand and work with culture.
 - They are able to operate effectively in more subtle, interpersonal tasks in the given cultural context (e.g., build trust, gain credibility).
 - They are able to select from a range of cultural responses the one that is best for a given context (e.g., when to minimize, when to adapt, and when to compromise).
 - They consider the cultural context in planning and analysis and understand the implications of operations for the sociocultural context.
-

These two facets of cross-cultural competence, cultural learning and cultural agility, work together in three important ways:

1. *Reading the situation.* Cross-cultural competence will enable an individual Soldier or leader to correctly read a situation in another country and accurately assess the meaning in a given context. An accurate understanding of the situation enables the Soldier or leader to make a more strategic decision regarding the most appropriate or effective behavioral response. Being able to respond effectively in the given situation is cultural agility.
2. *Effectively responding in the situation.* It is important to note that the most appropriate behavior response may not always be adapting to the local norm (cultural adaptation). In some cases, the most appropriate behavioral response is maintaining a counter-culture standard (culture minimalism) or determining how to compromise, meet-in-the-middle, or create a new set of operating norms in order to interact effectively (cultural integration). Actually engaging in either cultural minimalism or cultural integration requires that an individual Soldier or leader understand he or she is in a situation where a cultural difference is present (i.e., engaging in cultural learning to support cultural agility).
3. *Anticipating and addressing challenges from the response in the situation.* While it is easy to understand how cultural learning and cultural agility work together, the necessity to effectively engage in cultural minimalism and cultural integration require an equal, if not an even more nuanced, level of cultural competence. In the case of cultural minimalism, for example, maintaining a standard that runs counter to the local norm may require a culturally sensitive approach to persuade or influence others into changing their usual response. This would require the ability to anticipate resistance and understand the appropriate approach to influence or persuade.

Cross-cultural situations vary enormously. Developing cross-cultural competence involves giving individuals the tools and concepts to enable them to discover culture on their own (cultural learning), and to incorporate cultural understanding effectively into their plans and actions (cultural agility). Cultural learning and cultural agility are complementary and both are necessary for mission success and Soldiers' safety. Both of these facets of cross-cultural competence have important implications for learning which will be discussed in greater detail later in this report.

Whether the mission is to defend one's position or collaborate with the local population, cross-cultural competence is a crucial component of success for the planning, execution and assessment of operations. The next two sections of this report discuss the two facets of cross-cultural competence outlined here: cultural learning competence and cultural agility.

Cultural Learning Competence

Competence in *cultural learning* is the ability, in the field, to quickly gain an understanding of the socio-cultural context for operations. This context includes locals whom the Soldier will meet and the environment in which they will meet them.

Gaining competence in cultural learning is neither new nor particularly difficult. In American society where there are few outward marks of status, education, or profession, this ability is especially useful. For example, when two Americans meet each other for the first time (e.g., in a bar or at a party) they are generally very skilled at sizing one another up in a very short time, through a series of indirect questions and observations. In these situations, people develop their understandings inductively, through interaction with people and with the environment, and others living in the environment. Although Americans can do this quite well in their own culture, they may not be so good at doing it in other cultures.

Anthropologists, however, do this all the time in the field. Like social encounters in general, anthropological fieldwork is inductive, done from the ground up. Meaning is established as the result of interactions between the anthropologist investigator and his or her hosts. Although an anthropologist is interested in artifacts and overt behaviors, they are particularly interested in the norms, goals, values, beliefs and perceptions that underlie (and generate) the behaviors – that is, in aspects of deep culture. Their goal over time is to build up an understanding of cultural *patterns*. This understanding, in turn, enables them to ask better and better questions, and to understand the answers more fully – in short, to learn more, and to learn faster.

Though Soldiers' goals are much different than those of anthropologists, regardless of the specifics of any particular mission, Soldiers interacting with a culture for any appreciable length of time are going to need and want to know about some basic dimensions of that culture. We have listed several of these, which we can term *basic cultural domains*. These aspects or dimensions of culture seem to be common to all societies, even though the particulars of each domain will vary widely across cultures.

- Physical Environment (Geography, the location of people within it, and their relationship with it. Understanding the role and use of water, land, and material for shelter)
- Economic (How people make a living. Formal/informal systems, relationships, exchange networks, property, goods, ownership, etc.)
- Social Structure (How people are connected to one another; age, gender, class, kinship, ethnicity, religious membership)
- Political Structure (How power and authority are organized, political organizations, cultural forms of leadership, challenges to political structures)
- Beliefs, Symbols and the Organization of Knowledge (How people make sense of their lives; folklore, icons, rituals, norms, mores, taboos, religious beliefs)
- Communication (Language, verbal and non-verbal behaviors, narrative styles)
- History (What people have been through, and how they think about this)
- Expressive Art (Major artistic forms and themes)

- Material culture (What people have and how they value it, including key technology)

Awareness or knowledge of these domains is not sufficient; cultural learning involves the ability to recognize how these domains apply in a particular cultural context. To be effective, a Soldier must use their knowledge of these domains to effectively interact with indigenous populations or foreign militaries and anticipate potential challenges.

Someone who is able to learn cross-culturally will be able to gain a basic understanding of any specific local culture in these broad terms. Not everyone, however, is equally good at doing this. Individual differences will facilitate cultural learning. Three personal traits, in particular, seem to facilitate cultural learning (see Table 2 for a more comprehensive list):

1. *Curiosity* (otherwise, why bother learning about other people?)
2. *Tolerance* for ambiguity and uncertainty (because not everything will make sense right away)
3. Willingness to *suspend judgment* in order to learn (because it is not about you, it is about them)

Given the right frame of mind, it is possible for most people to learn fairly quickly about another culture using a relatively small number of simple techniques.

Cultural Agility

Cultural agility is the ability to quickly, comfortably, accurately, and successfully operate across countries and with people from different cultures -- in other words, to use your cross-cultural learning effectively.

Whereas cultural learning focuses on gaining understanding about the culture that the Soldier will encounter, cultural agility focuses on a Soldier or leader's responses to a culture and in a cultural context. Cultural agility enables Soldiers to understand what to do with their cultural learning (e.g., when to adapt, when to compromise, when to ignore). In some cases, cultural agility may be needed before the Soldier has gained a full cultural understanding, e.g., while he or she is still relying primarily on interpreters or other cultural liaisons to understand the culture.

Cultural agility, as an ability, was coined by Caligiuri (Caligiuri & Tarique, 2009; Caligiuri, Lepak, & Bonache, 2010) in an effort to better describe the three concurrent orientations individuals need in order to operate across countries and in multicultural settings. These orientations include cultural adaptation, cultural minimalism, and cultural integration.

Table 2
Cross-Cultural Competence Facilitators

Facilitating (or Inhibiting) Factors in Developing Cross-Cultural Competence	Dimensions	How Are These Acquired?
Knowledge and Cognition	<ul style="list-style-type: none"> • Self-awareness – have and desire greater personal insight with respect to how one is perceived and one’s influence on others • Geopolitical issues • Global history • Culture knowledge • Regional knowledge 	Learning
Skills and Abilities	<ul style="list-style-type: none"> • Cognitive ability • Communication • Negotiation • Influence • Diplomacy • Language skills 	Learning may be influenced by natural ability or personality
Affect and Motivation	<ul style="list-style-type: none"> • Willingness and motivation to develop oneself, interact cross-culturally, and gain the skills to be effective in intercultural and multicultural situations • Willingness to suspend judgment and operate without racism (or other –isms) 	Personality and learning
Personality or Dispositional Traits	<ul style="list-style-type: none"> • Openness, intellectual curiosity, and curiosity about others • Sociability and extraversion • Emotional strength and stability • Flexibility • Tolerance of ambiguity 	Relatively stable personality characteristics, relatively difficult to change through intervention; some may be shaped, over time, by reinforcing behaviors that are consistent with the characteristics

Cultural adaptation. Cultural agility is not solely cultural adaptation; however, there are times when adaptation is critical. Cultural adaptation is an orientation people may have to be sensitive to and strive to adapt to the nuances of cultural differences, often leveraged in situations requiring Soldiers to behave in the most culturally appropriate ways to be successful.

Cultural minimalism. Cultural agility does not mean we should pretend cultural differences are nonexistent; however, there are times when higher-order demands will

supersede cultural expectations. Cultural minimalism is an orientation people have to reduce the perceived influence of cultural differences either in one's own behavior or in the behavior of others. Cultural minimalism is a highly functional cultural orientation in situations where there are important tactical or strategic reasons to override or play down cultural differences.

Cultural integration. Cultural agility is not merely merging multiple cultures to create a new set of behavioral norms, but there are times when cultural integration is most important. Cultural integration is an orientation to understand cultural differences of each person in a multicultural or cross-cultural context, but also to strive to create new norms or interactions that reflect a combination of many cultural perspectives.

Culturally agile Soldiers and leaders are able to operate with each of the three cultural orientations, depending on the situational demands. They will leverage the behaviors of a cultural minimalist when the situation demands that their behaviors supersede the local context. They will adapt their behaviors when the situation demands attention to the local context. They will also be able to create new behaviors by taking elements from multiple cultural contexts.

Cultural agility is gained over time as an individual builds a repertoire of appropriate responses and becomes more fluent in reading and assessing a given cultural context. Most of this learning is experiential as Soldiers and leaders interact with peers from other cultures and learn to test their assumptions and the limits of their personal knowledge.

Cultural agility is learned most effectively through high-quality contact with people from different cultures. As with cultural learning, individual differences can facilitate (or limit) the development of cultural agility. (See Table 2 for a more comprehensive list.) These include:

1. *Openness* to people and the valuing of diversity
2. Sociability and *extraversion*
3. Emotional strength and *stability*

How We Adjust to New Cultures

Although we have no definitive, universally-accepted model for how people adjust to another culture, we know in general how this happens. For some people, it can be a process of trial and error; for others, it is a highly structured undertaking. For most, it will be an iterative process, somewhat akin to an experiential learning model. Most people seem to pass through a series of stages, or plateaus, as they learn about a new cultural environment, and we offer this rough sequence as a way to begin thinking about how to organize training for Soldiers (see Figure 1; Nolan, 1999, pp. 25-26).

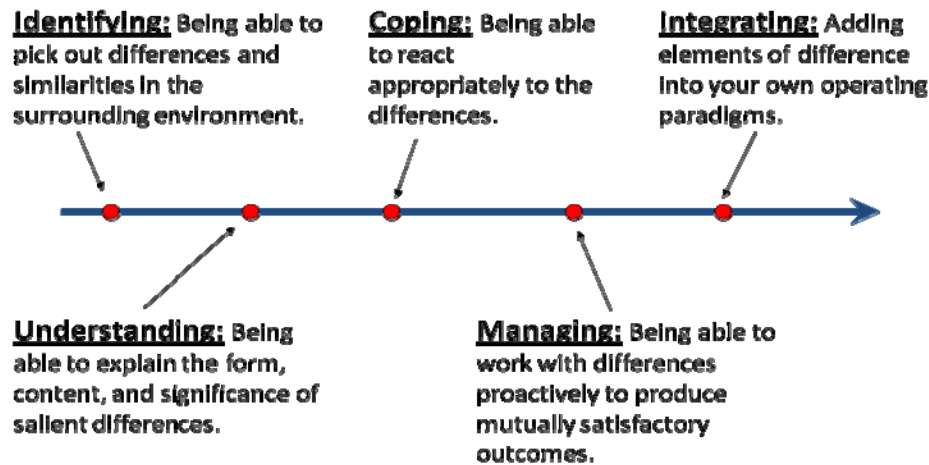


Figure 1. Stages of cultural learning

Stage 1: New Perspectives (Identifying). The individual begins to become aware of the fact that there are different systems out there, in contact with their own.

Stage 2: How It Works (Understanding). The individual begins to grasp some of the principles which govern how the different system works.

Stage 3: Operating Within It (Coping). The individual starts to be able to interact successfully with the other system. This produces more learning.

Stage 4: Using It (Managing). The individual learns how to manage the other system in mutually acceptable ways. Learning accelerates.

Stage 5: Incorporating It (Integrating). Finally, the individual may incorporate selected elements from the other system into his or her own personal operating framework.

Consider the cultural learning process for a Soldier deployed for the first time. Stepping foot into a new environment, s/he becomes inundated with foreign stimuli (Stage 1) - from the smell of the local market to the dress of the local population. Identifying the differences and similarities of this new setting with more familiar cultures can be expected of Soldiers at the “cultural awareness” level of proficiency in the Army Culture and Foreign Language Strategy (ACFLS) (2009).

With time and greater immersion in the new culture, this identification process gives way to an understanding of cultural differences (Stage 2). This stage may include understanding gender role differences or the recognition that particular gestures’ meanings do not remain consistent across cultures. At Stage 3, the Soldier leverages their knowledge of salient cultural differences using behavior appropriate to the situation (e.g., accepting tea when offered). These stages can be viewed as comparable to the “cultural understanding” level of proficiency in the ACFLS.

With more experience, the Soldier can begin proactively managing interactions and situations (Stage 4); for example, a Soldier asks a member of the local population about their family before conducting business with them. Finally, with practice, many skills will become second nature and will likely be integrated into the Soldier’s everyday behavior

(Stage 5). These stages are characteristic of someone at a “cultural expertise” level of proficiency.

Even for people who are highly committed to cross-cultural learning, this process can be slow, difficult and confusing. At first, the new cultural environment may seem bewildering, even hostile. Over time, as learners begin to grasp the structure underneath the apparent chaos, they start to create a frame of reference for understanding the new culture. This frame of reference enables them to identify significant information, understand its meaning, and organize their knowledge. And as understanding increases, they are better able to react to, and proactively engage with, the culture.

In the following two sections, we present techniques and practices that enable individuals to acquire or apply cultural learning competence and cultural agility.

Techniques and Practices for Cultural Learning

There are a range of simple and effective tools for discovery that can be used by Soldiers to learn about a new and unfamiliar culture. The process by which one uncovers a new culture is very similar to the way one learns about a new neighborhood. You meet people, you ask questions, you start putting the pieces together. Eventually, you see patterns. At that point, you become more discriminating, your questions get more precise and helpful to you, and you begin to see the directions in which you might want or need to move.

Almost everyone has done this kind of thing previously, if they have ever moved, gone away to school, or started a new job. Every Soldier has gone through this process, starting with their experiences in Initial Military Training. The Marine Corps has adopted training for such observational skills for combat operations in its Combat Hunter program (Poole, 2008); similar principles can be applied for non-kinetic purposes.

None of these tools require lengthy training, and indeed, their use should be embedded within existing training. Most of the discovery tools listed here are qualitative, although some can be used quantitatively. The great advantage of these (and similar) methods is that

- They are largely intuitive, and require little, if any, formal training in most cases;
- They can be quickly learned and informally applied; and
- They permit scaling from very simple to relatively sophisticated use, depending on the circumstances and context.

All of these tools are essentially framing devices, and although they lend themselves in some ways to quantitative analysis, they are not really designed to be used that way. Instead, they are tools for helping people do what anthropologists call ‘counting to one’ – that is, for determining what, in a given situation, is actually worth paying attention to, and why. They are navigational techniques, for unfamiliar terrain. There is an extensive literature on anthropological discovery techniques which covers the tools and

approaches mentioned here (see, for example, Bernard, 2002; Epstein, 1978; Freilich, 1978; Jackson, 1987; Omohundro, 2008; Pelto, 1970; Wax, 1971; Wolcott, 2001).

Their real utility is as a generator of deeper qualitative understanding of the bases on which people live their lives, of the deeper cultural factors which influence behavior. And, of course, they help people ask better and better questions, as time goes on.

Domain analysis. A fundamental research tool of anthropologists, derived from ethnosemantic techniques, domain analysis permits questioners to focus in on one aspect of life (a domain) and to discover, and then examine, how that domain is put together in terms of categories, hierarchies, and rules (see Spradley, 1979, 1980, for an in-depth discussion of this technique).

Event analysis. Essentially a checklist of things to observe and ask about when present at a social performance (e.g., a play, a wedding, a tribal council, etc) which focuses on the roles people play, the purposes for which they play these roles, and the ways in which they determine whether those roles are being played successfully (see Lofland & Lofland, 1984, for detailed discussion).

Community mapping. A physical map of a town will contain a great deal of information, but will omit other important – and essentially cultural – aspects of the terrain. Where in town, for example, do the wealthy live? Where is it dangerous to walk at night? Where is it impossible to find parking on the weekend? A community mapping exercise ‘fills in the blanks’ either from the questioner’s perspective, or from the respondent’s, or both.

Social network analysis. A somewhat more technical technique, with multiple variations, involves mapping or charting the pattern of interaction between people in a group or community. Who is related to whom? Who visits whom? Who exchanges food, or gifts with whom? Doing this at one point in time gives you a snapshot of the structure of relationships. Doing it multiple times gives you a sense of what may be changing.

Life histories. Life histories are an excellent way to begin to discover what life is like for people of another culture, by asking one person at a time what his or her life was like. In many cultures, asking someone to tell about his or her life is not perceived as particularly intrusive (although this is not always the case), and although informants may alter or embellish their stories, even those changes are useful information. Through life histories, one discovers what the informant thinks were significant events and why, what choices they felt they had in responding to those events, what determined their actual choice of response, and how satisfied they were with the outcomes.

Life cycle accounts. In other cultures, or at other times, having someone talk about his or her own life may be sensitive. In those cases, it is often useful to talk about someone else’s life in a more general and abstract way. Accounts of the life cycle involve questions about how someone (i.e., no-one in particular) grows up in a society, from infancy to old

age. Although the information may seem overly general and idealized, it provides a rich basis for further questions and deeper general understanding.

Key informants. Everyone knows something, but some people know more than others. Of those people, some will agree to tell you what they know. Those people become your ‘key informants,’ very similar to an interpreter of sorts. A key informant is someone who (a) knows important things; (b) understands why you are asking about these things; and (c) is willing to tell you. Identifying and working with key informants is a highly effective way to speed cultural learning.

Critical incident analysis. Mistakes happen all the time; problems arise; crises occur. When these happen, it is highly effective to do a post-mortem, and to analyze the situation in terms of what happened, how people felt about what happened, what they did in response, and what happened as a result of that. Done carefully over time, this “study of surprise” leads to both increased cultural understanding and the development of effective reaction strategies.

Unobtrusive measures. Most cultural discovery techniques involve interacting with people, and doing so in a positive way. But there are a host of so-called ‘unobtrusive measures’ (or ‘non-reactive measures’) that do not require interaction, but simply observation (see, for example, Lee, 2000, Webb, Campbell, Schwartz, & Sechrest, 1966). Patterns of wear on carpets or stair treads, for example, are clues to movement. What is for sale in local markets can be an indicator of prosperity, rainfall, and/or food preferences.

Delphi survey techniques. Delphi involves eliciting opinions from a selected body of local ‘experts,’ analyzing and synthesizing their answers, and generating follow-on questions based on what has been learned so far. This can be highly effective. The Delphi approach is well-known, and particularly useful when (a) people cannot (or should not) come together for discussion and information exchange; and/or (b) when the issue to be examined has no clear-cut shape or solution (see Delp, Thesen, Motiwalla, & Seshadri, 1977 for a description of the technique).

In/out baskets. In/out baskets are one small example of the use of scenarios to both gather information and to train people. Individuals are given hypothetical situations and asked to react. For training purposes, there usually are ‘right’ answers, but in the field, using what-if scenarios can be a useful way of understanding how decisions are made, and what factors come into play in the process.

Rapid rural appraisal. Rapid rural appraisal (RRA) is a collection of techniques, and a considerable and detailed literature exists on this subject going back some thirty years. Essentially, RRA is used in development work to gain initial understanding of a community, its structure, resources, people, and problems. Some of the techniques involve interviewing, but others involve mapping, transects, and observation. One of the main goals here is the avoidance of ‘rural development tourism’ or ‘windshield analysis’ where outsiders are given a highly biased and often manipulated view of a community. See

Chambers (1985, 1994a & b) and Beebe (1995, 2001) for good descriptions of this approach.

Training in these techniques will teach Soldiers how to think, not what to think and how to quickly generate and use cultural information for themselves to begin to gain cultural understanding. Soldiers and leaders will use these tools from the minute they enter a new cultural environment. The information gained should enable Soldiers and leaders to figure out what is going on around them, determine the most appropriate action to take, and understand what happened as a result.

At the broadest level, then, these techniques and practices help Soldiers with initial entry and survival tasks, with ‘getting a feel’ for their surroundings, helping them position themselves for further learning. These tasks are both crucial and time-sensitive. Some of the most important initial decisions a Soldier will make will be made at a time when he or she has the least amount of knowledge.

What are some of these key initial tasks? They include:

- Entry and role definition; reaching out and engaging with people
- Communicating effectively
- Figuring out who’s in charge, establishing contact and negotiating the ground rules for conversations and interactions
- Watching out for manipulation attempts and avoiding co-optation

Once these things have been done, other tasks become important:

- Building relationships and trust
- Starting to investigate cultural domains in greater depth
- Developing skill in effective communication (including persuasion and influence); and
- Understanding how to collaborate through reciprocity.

The *building of rapport* is probably the crucial element here. The quality of rapport (which is based on things like trust and reciprocity) will determine the quality of information obtained, and hence, the extent of cultural learning that takes place. Although it is possible to engage in cultural learning under overtly hostile conditions, it is not particularly easy.

Once contact is made, what do conversations consist of? For a Soldier, three aspects of a new situation seem quite important, and will probably shape the types of questions asked. The first of these is the ability to recognize *threat*, and distinguish it from situations of non-threat. The second is *respect* and how it is demonstrated in that culture. Finally, there is the ability to understand and influence the local’s *perceptions* of you. Note that all three of these depend primarily on local cultural definitions and practices, and not necessarily on what an outside observer thinks or believes.

For specific missions, other lines of inquiry will be important, and will therefore shape Soldiers’ conversations and interactions with locals. For example, if effective

counterinsurgency involves, as some believe (Lemann, 2010), co-opting elites, then it becomes important to identify elites, and to understand why and how they are elites. If local insurgents basically want control of resources (e.g., land, or water) then it becomes important to understand what resources there are in the environment that are worth fighting over, and why.

Meaning in fieldwork doesn't come quickly or easily. Meaning does not emerge automatically as 'information' accumulates, but only after enough information has accumulated to enable one to discern patterns. There is an ongoing risk of premature closure in almost all encounter situations. Learning must therefore be a continuous process.

Techniques and Practices for Cultural Agility

Developing cultural learning and cultural agility requires high-contact peer-interactions with opportunities to question and test assumptions. There are many opportunities within the Army to do this. They include:

Critical incidents and debriefing. Cultural critical incidents happen throughout the military, every day. These incidents could be used to underscore the importance of cultural competence but also help Soldiers better understand the role of cultural agility, in particular, the times when the use (or misuse) of cultural knowledge produced a positive (or negative) outcome.

Quality contact with functionally bi-cultural individuals. These can be structured interactions in safe settings, such as native language speakers who are also functionally bi-cultural (e.g., O9Ls or other Soldiers with multicultural backgrounds).

Use of interpreters. Interpreters are used widely in the military and can be a source of cultural learning.

International immersion. Of course, deployment is an example of international immersion – with much higher consequences and potentially few situations conducive to cultural learning. Ideally, opportunities for safe international immersion would precede deployment. Humanitarian missions, Cadet Command's International Immersion Program, and study abroad are examples of safe international immersion.

Coalition military operations. Operations and exercises with ally and coalition militaries provide opportunities for cultural learning. In addition, Soldiers may have opportunities to interact with military personnel from other countries in professional military education (PME) (e.g., international officers at the Command and General Staff College).

TRAINING AND DEVELOPING CROSS-CULTURAL COMPETENCE

Every Soldier has three warrior tasks: to shoot, to move and to communicate. To this, the Army recently added “survive” and “adapt” (U.S. Army Training and Doctrine Command, 2010). The “adapt” task includes the requirements to “adapt to changing operational environments” and to “grow professionally and personally” and is the focus of the present report. Soldiers need to learn about the cultures in which they operate in order to be safe and effective in their missions.

Learning refers to a relatively permanent change in human capabilities that is not the result of physiological growth processes (Gagne and Medsker, 1996). Rather learning refers to capabilities that include *cognition* (e.g., verbal knowledge, knowledge organization, and cognitive strategies), *skills* (e.g., interpersonal, physical) and *affect* (e.g., attitudes, motivation, self-efficacy; see Kraiger, Ford, & Salas, 1993).

Learning is a continuous process, not a onetime event. It is not limited to a course, program, or experience, but is development stage appropriate (novice, intermediate, expert) across the Soldiers’ career. Developing cross-culturally competent Soldiers requires a broad range of learning solutions, including training, development, and knowledge management. The Army currently has available many different types of delivery methods for training Soldiers and leaders which include classroom learning, case studies, overseas experiences, officer training schools, and knowledge management systems focusing on “lessons learned.” All of these should be utilized to develop a globally competent Soldier.

The learning system to develop cross-cultural competence is different from other traditional training programs in the Army given that the focus is on the role context (working internationally) rather than role content (e.g., firing a weapon, mastering a technology). Given the many dispositional characteristics that will facilitate (or limit) the acquisition of cross-cultural competence, not every Soldier (even those with a proven record of success in a domestic context) will be equally effective in an international context.

Learning should emphasize both cultural agility and further cultural learning. Using basic culture dimensions (see preceding section for a list) and discovery techniques prepares Soldiers to have the necessary skills to plan and execute foreign area operations. Cultural agility increases the likelihood of Soldiers having the social and emotional intelligence to function effectively in cross-cultural environments, increasing the affective component of cultural learning.

Learning Outcomes

As we discussed above, the process of adjusting to new cultures requires Soldiers to move through a series of stages, from the most basic stage involving identifying that there are different cultural systems from their own (Stage 1) to the most complex stage of

incorporating elements from a new culture into their own personal operating framework (Stage 5).

What do Soldiers learn as they move through the five stages? That is, what are the learning outcomes? Recent efforts to identify learning outcomes related to cross-cultural competence in a military context suggest they should include cognitive, affective, and behavioral learning outcomes (see McDonald, McGuire, Johnston, Selmeski, and Abbe, 2008; Salmoni & Holmes-Eber, 2008). Based on these efforts as well as the work by learning psychologists (e.g., Gagne & Medsker, 1996), the learning outcomes should include three categories of human capabilities that can be learned and are relevant to intercultural contexts. These categories of learning outcomes constitute the “be-know-do” of cross-cultural competence (see Table 3).

One or more of these learning outcomes are likely included in any lesson, course, or program focusing on Soldier’s development of cross cultural competence. The learning outcomes shown in Table 3 are not ordered in terms of complexity, importance, or presented in the sequence they should be learned: they are simply different from each other.

Be. Attitudes include a cognitive (belief), affective (emotional), and behavioral (action) component. Although attitudes are often considered internal states rather than behaviors, we emphasize the behavioral component because attitudes influence behaviors. It is only through observable action that we can tell whether attitudes have been learned or changed. We infer attitudes through observation of behavior, and in the battlefield, the concern is with behavior rather than internal states.

Know. Declarative knowledge (“knowing that”) focuses on verbal information related to facts, names or labels, and organized bodies of knowledge. It relates to “common knowledge” that the Soldier needs to know about the culture. The assessment of this type of learning outcome is based on whether the Soldier can recall it. It does not require the Soldier to apply it or change it to fit their purposes. For example, a Soldier in Afghanistan can demonstrate her declarative knowledge of the social structure by being able to identify gender and class differences in a written or oral exam.

Procedural knowledge (“knowing how”) allows the Soldier to generalize capabilities to novel situations. For example, a Soldier who has an understanding of and can identify class differences in one Afghan tribe is able to analyze and apply this understanding to other Afghan tribes despite the likelihood that the size and meaning of class differences varies between tribes.

Do. Skills include motor skills and cognitive strategies. Motor skills relate to physical movements. In a cultural context, motor skills are related to appropriate body posture, greetings, and voice tone when interacting with locals.

Table 3
Learning Outcomes of Cross-Cultural Competence

Learning Outcome	Description	Examples
Know: Declarative Knowledge	“Knowing that.” State, tell and describe something. Reproduced in same form it was presented to the learner	<ul style="list-style-type: none"> • Identify domains of culture • Identify similarities and differences with American culture
Procedural Knowledge	“Knowing how.” Capabilities can be generalized to novel situations. Different levels of procedural knowledge include discriminations, concepts, rules, and higher order rules	<ul style="list-style-type: none"> • Learn from interpreter by asking questions and listening • Determine whether a government official yelling at you represents a physical threat
Do: Motor Skill Cognitive Strategies	Behaviors that are executed with accuracy, smoothness, and timing. Manage own thinking and learning process	<ul style="list-style-type: none"> • Shift from own cultural behavior patterns to those of another culture (e.g., in gestures and other nonverbal communications) • Shift negotiations style based on evaluation of significance of topic, private vs. public nature of the interaction, seniority of the local and his responses
Be: Affect and attitudes	Internal affective states that affect choice of action	<ul style="list-style-type: none"> • Probe what locals think about Americans • Avoid insulting, degrading, or embarrassing the locals • Approach locals and talk with them rather than bully them

Cognitive strategies are more general than the other four types of learning outcomes because they can be used to regulate learning of the other outcomes. For example, the Soldier may acquire or invent new ways to solve specific types of communications problems.

It is reasonable to expect that as Soldiers move through the first stages of adjusting to a new culture and being trained for cross-cultural competence the focus will be more on declarative and procedural knowledge (identifying and understanding), gaining an appreciation for why cross-cultural competence is important (attitude) and development of rudimentary cognitive strategies. When Soldiers are deployed their learning likely occurs through experiences and interpersonal relationships outside of formal classes. These experiences and relationships facilitate coping with the new culture, effectively managing their behavior in the new cultural system, and integrating cultural understanding into their own personal operating framework. Coping, managing, and integrating (Stages 3, 4, & 5) are related to the development of more advanced cognitive strategies and cultural agility.

A Continuous Learning System for Developing Cross-Cultural Competence

Just as culture itself is acquired through learning, an understanding of culture must also be acquired through learning. This learning occurs not just from classes or guides used by individuals, but from social interaction with locals and fellow Soldiers and officers. We discuss below the specifics of the learning model that will enable the Army to develop cultural learning and cultural agility in its Soldiers. It is important to emphasize that learning is an ongoing process. This means that for mission success Soldiers need to be aware of and comfortable using discovery techniques and experiencing different cultures on their own as much as possible pre- and post- deployment. They should also collaborate and share what they have learned with others.

Generally, Soldiers need to learn about the basic features of a culture for any mission (what we've called *domains*) and tools they can use to learn and share information about these domains that they obtain through interactions with the local population. We agree with Salmoni and Holmes-Eber (2008) who emphasize that social intelligence comes from engaging in a continuous cycle of experience, reflection, and self-knowledge. Soldiers should also be able to access mission specific-information on the local culture through access to knowledge sources including manuals, operating guides, mission reports, and electronic databases, blogs, and internet sites.

Cross-cultural competence requires Soldiers to have basic knowledge of cultural domains, tacit and explicit knowledge about the particular culture (or cultures) in which they find themselves immersed on a specific mission, and the motivation and tools to continually learn and adapt and share with their peers and leaders what they have learned (experiences, knowledge). Cross-cultural competence also requires cultural agility, knowing what to do with cultural knowledge in specific situations where more subtle, interpersonal tasks are needed and there are a range of behavioral options available.

As such, learning cross-cultural competence cannot be limited to traditional didactic methods such as lecture, classroom, case studies, and videos. These are effective methods for insuring that Soldiers have the basic explicit knowledge or facts needed to understand culture, but do not help Soldiers understand or practice the *behaviors* necessary for cross-cultural competence (i.e., both cultural learning and cultural agility).

Anthropologists, industrial/organizational psychologists, education, and management scholars have emphasized that learning occurs through a wide variety of formal and informal activities (Torraco, 1999; Tannenbaum, Beard, McNall, & Salas, 2009). These include active learning methods such as job experiences and performing the work, feedback and information obtained from relationships with locals and peers which occur on the "job," and as well as learning that occurs in more formal settings such as the classroom. The reality is that learning occurs through a wide variety of formal and informal activities, including formal courses and programs, job experiences, self-directed learning, and social interactions with others. Some estimates are that seventy percent of learning

occurs through job experiences and performing the work and relationships with others. Thirty percent of learning occurs through formal learning methods such as classroom instruction, simulations, role plays, or internet-based training programs (e.g., Bear et al., 2008). Bear et al. (2008) found that the most widely used tools and processes for informal learning included e-mail, reading information on the internet, “fingertip” knowledge (e.g., Google), and casual, unplanned encounters. The mix of learning using on-the-job experiences, relationship, and formal courses likely varies for experts and novices. Novices tend to equally use on the job experiences, relationships, and formal courses for learning. Experts tend to rely more exclusively on work experiences and relationships for learning.

The Army is similar to many public and private sector organizations that are challenged with moving from a philosophy of viewing learning as an event or program to a continuous learning philosophy, including learning through training and development programs, experiential learning, and face-to-face and electronic knowledge sharing (see Martocchio & Baldwin, 1997; Noe, 2010). Just as private organizations must have employees who are agile, adaptable, and resourceful in meeting customer needs, entering new markets, and developing new products and services, Soldiers must also be able to understand the essential elements of the culture they are immersed in to insure their safety and mission effectiveness.

These skills are especially important in the current environment of counterinsurgency and stability operations. Soldiers are operating in areas of the world where the U.S. has had a limited history of engagement from which an understanding of cultural norms and acceptable behavior might arise. In these situations, Soldiers, their leaders, and the Army have less of the tacit knowledge (e.g., personal experience based knowledge of culture and their implications for behavior) than explicit cultural knowledge (e.g., lists of cultural norms found in country guide books) needed to be successful.

To gain more tacit knowledge and to be successful in current and future missions, Soldiers should gain some basic understanding of the important domains of a culture, as well as how to develop trust and interact with civilians and public officials they may encounter in their operations. Social collaboration and knowledge sharing is critical to support and sustain this learning. Soldiers must be able to extend their learning and understanding of the local culture as the mission evolves, based on their own observations and personal experiences with locals, as well as observations and personal experiences of peers, leaders, and other units or teams.

We propose that the Army adopt the learning system perspective shown in Figure 2 for developing cross-culturally-competent Soldiers. This model is based on Meister and Willyerd’s (2010) “social learning ecosystem,” which includes elements of other learning models proposed for the military (e.g., see Selmeski, 2007 who identifies experience, training, education, self-development), and is based on learning models and research on effective learning processes discussed in the training and development literature (see Baird, Griffin, & Henderson, 2003; Bell & Kozlowski, 2008; Bingham & Connor, 2010; Kraiger, 2008a,b; Noe, 2010). This approach is consistent with the Army Learning Concept for

2015 (2010) and the Army Leader Development Strategy (2009) and draws on both the institutional and operational Army to sustain cultural learning.

The model shown in Figure 2 has four quadrants with *competency-based learning* on the left side and *context-based learning* on the right side. The upper part of the figure includes *formal learning* that involves planned events that are supported and created by the Army. The lower part of Figure 1 includes *learning created by users* themselves. These types of learning tend to be social and collaborative; technology can be used to facilitate this type of learning. Social learning is the acquisition of knowledge and skill through methods that are collaborative, immediate, relevant, and presented in the context of an individual’s work environment (Meister & Willyerd, 2010). Social learning emphasizes learning with and from others. Social learning is likely to include both tacit and explicit knowledge.

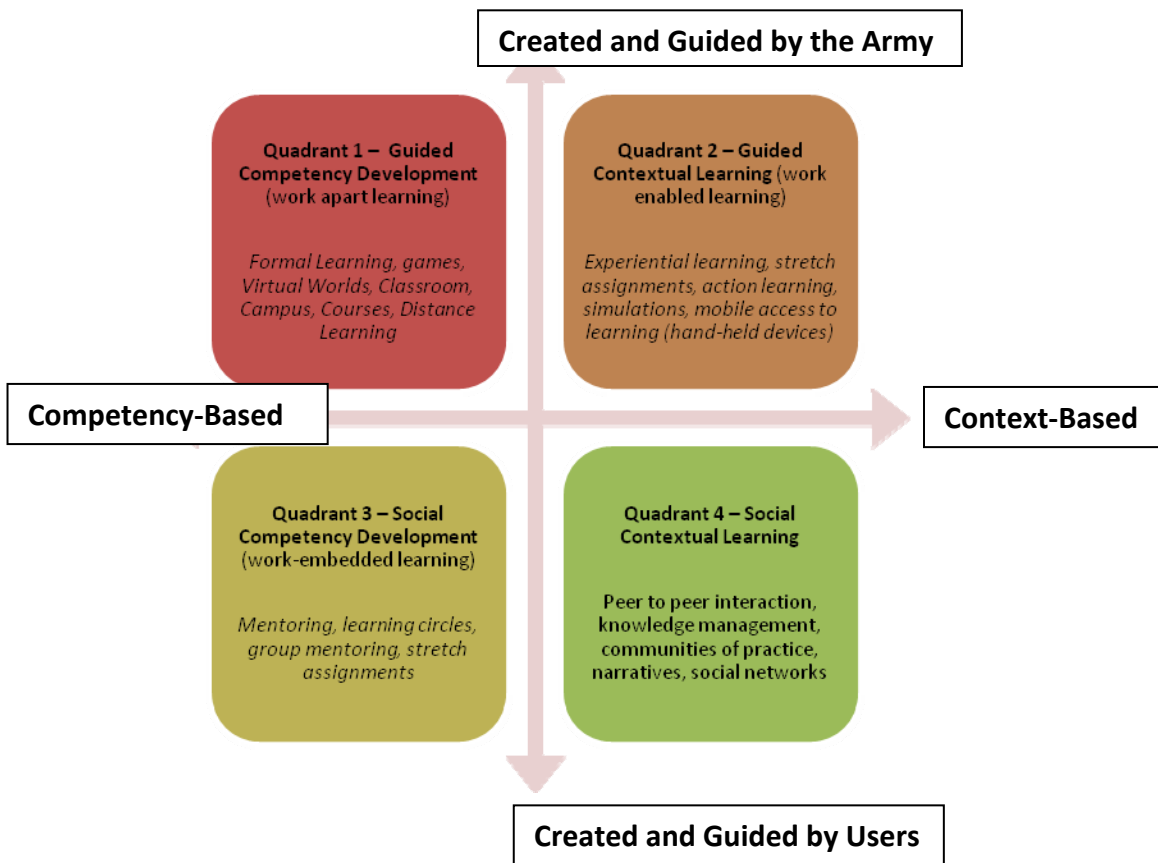


Figure 2. A learning system for developing cross-cultural competence

Guided Learning and Development

The learning methods included in Quadrant 1 serve an important purpose in disseminating information, practicing behavior, and developing skills for learning outcomes in which the task or competency is well-known and easily measured using grades, checklists, or evaluations. These learning methods tend to be “formal” learning methods. One assumption in formal, face-to-face learning approaches such as classroom instruction is that the instructor, along with the organization as a whole, bears the primary responsibility for ensuring that learning occurs (Kraiger, 2008a). The learner plays a passive role as the receiver of information, and learning occurs to the extent that the appropriate conditions are provided by the learning “experts” or are inherent in the learning method. For example, the instructor bears the responsibility for identifying what should be learned, determining the most appropriate methods, and evaluating the extent to which knowledge and skill acquisition resulted from the learning activity.

Quadrants 1 and 2 also include technology-based instructional delivery and learning methods. Technology-based learning methods such as distance learning, web-based learning, simulations, and mobile learning using hand-held devices are attractive learning methods for helping Soldiers gain cross-cultural competence for several reasons. Learning is accessible to the Soldiers at any time and place they have access to a learning device (e.g., computer). Geographically dispersed Soldiers are given the opportunity to learn new skills or refresh previously learned skills without the Army having to absorb the cost and time of bringing them to a central training location. Soldiers have control over how much they interact with the learning material including reviewing content, skipping content, completing exercises. On-line instruction is consistently delivered and can be quickly updated or changed.

Quadrant 2 also includes synthetic learning environments (SLEs). SLEs refer to simulations, games, and computer-based virtual worlds that place individuals in learning environments that are physically and/or socially similar to their work environment (Cannon-Bowers & Bowers, 2009). The effectiveness of simulations is often attributed to the safe environment they provide learners to try new skills, and similarity between the learning environment and the work environment promotes near transfer and makes the learning experience meaningful.

Despite these potential advantages, technology-based learning methods are not inherently more effective than other face-to-face learning methods. Research comparing the effectiveness of online learning to face-to-face instruction suggests that neither approach is effective for all learning outcomes, situations, and types of learners (Sitzmann, Kraiger, Stewart, & Wisher, 2006). For example, on-line instruction may be more effective for teaching declarative knowledge than classroom instruction while both are equally effective in teaching procedural knowledge (Sitzmann et al.). On-line instruction and classroom instruction are equally effective when similar instructional methods are used (e.g., practice, feedback, video), suggesting it is not the particular media used to deliver instruction but what goes on in the instructional environment that influences learning.

Also, despite the increase in the surface realism of educational simulations, learning can be inhibited in highly detailed representations. Learners asked to make decisions or interact in novel environments, such as a new culture in which they are immersed in a simulation, are frequently distracted by unimportant details. Lacking an appropriate framework for understanding the richness of the cultural interaction they encounter in the simulation, learners often spend too much time attending to unimportant aspects of the situation. It is critical that the functional relationships from the real situation be maintained in a simulation and virtual world. The learner must be able to use their limited processing ability to interact with the virtual world itself instead of being able to interact with the virtual environment the way they would in the real world (Barshi, 2009).

To create a positive learning environment, technology-based learning methods should include the following features (see Clark & Mayer, 2003; DeRouin, Fritzsche, & Salas, 2005):

- Soldiers should have control over when and where they want to learn, the pace of learning, the content they view, and the amount of practice.
- Soldiers should be linked to other resources (such as useful web sites) and have the ability to collaborate with peers or interact with trainers, instructors, subject matter experts, or mentors.
- A high degree of functional realism and meaningful content should be included when using high-fidelity learning methods such as avatars, virtual reality, and simulations.
- The use of mobile learning methods technologies such as i-pods or other hand-held devices may be best suited for knowledge dissemination or providing access to learning content for review purposes or on an as-needed basis in the field.

Social and Contextual Learning

The role of learning experiences using contextual learning, social competency development and social contextual learning (Quadrants 2, 3, and 4) may be especially critical in developing a culturally agile Soldier. The importance of guided contextual learning and social learning is based on social learning theory (Bandura, 1977) and the contact hypothesis (Allport, 1954), which have been used to provide the conceptual basis for understanding how individuals develop cross-cultural competence, in particular, cultural agility. These two theories have one important element in common: learning through social interactions.

Social learning theory (Bandura, 1977) proposes that individuals learn from their surroundings, either from interacting with people or observing other people's behaviors. Given that there are many types of developmental experiences (e.g., mentoring, foreign assignments, cross-cultural training) with varying attributes such as costs and learning goals, it cannot be simply assumed that what is true of one type of developmental experience will also hold for other types. Participative modeling processes (verbal vs. behavioral) of social learning theory can be used to differentiate the development experiences into high-contact and low-contact experiences. Based on participative

modeling processes, experiences can be best understood on a continuum ranging from low-contact, which use the participative-verbal modeling approach (e.g., formal university coursework), to high-contact, which use participative-behavioral modeling approach (e.g., long-term international assignment). High-contact experiences involve the learner practicing and reproducing appropriate skills and behaviors. Therefore, greater participation may allow individuals to improve their ability to reproduce the culturally appropriate skills and behaviors. The more opportunities a Soldier has for high-contact intercultural experiences, the more opportunity he or she has to practice the modeled behavior and to refine the ability to reproduce the modeled behavior at a later time in the appropriate situation.

The contact hypothesis was originally posited to address race relations in the United States in the 1950's and 1960's (Allport, 1954). This hypothesis suggests that the more equal-status interaction (i.e., contact) a person has with people from a given cultural group, the more positive his or her attitudes will be toward the people from that cultural group (Amir, 1969). Extending this to international interactions, Church (1982) suggested that the principles of the contact hypothesis could be applied to the interpersonal interactions between individuals of different cultures. The more an individual interacts with multiple people from different cultures, the more likely he or she will be able to identify, learn, and apply diverse culturally appropriate behaviors needed for effective global leadership.

From a social learning perspective, the more contact international assignees have with host nationals and the host culture, the greater their cross-cultural adjustment (Bochner, Hutnik, & Furnham, 1986; Bochner, McLeod, & Lin, 1977; Brislin, 1981). For example, past research has found that having friendships with host nationals greatly improves international assignees' ability to learn culturally appropriate social skills and behaviors (Searle & Ward, 1990). Thus, more prior experience with the host culture should produce greater cross-cultural adjustment.

On the other hand, the social cognitive theorists (e.g., Bandura & Locke, 2003; Bandura, 1977) contend that prior foreign experience with the host culture is positively related to adjustment provided that the experience does not serve to reinforce previously held stereotypical beliefs or foster negative, unrealistic expectations of the foreign culture. Social cognition proponents agree that there is a direct relationship between foreign experience and cross-cultural adjustment when the experience provides an accurate and realistic representation of the host countries' norms, customs, and values.

The elements of what makes for a developmental cross-cultural experience include:

- The extent to which the assignment/experience offers opportunities to interact with peer-level people who are nationals of another country or culture. These assignments could be within areas in the U.S. characterized by cultural diversity as well as outside the U.S.
- The extent to which the experience offers some opportunities to gain new knowledge (e.g., master technologies in a different context, gain exposure to a different approach to an operation, operate in different region).

- The extent to which this assignment/experience offers opportunities for intercultural learning and stretches the Soldier in terms of understanding the limits of his or her cultural assumptions. Success in this assignment/experience requires the Soldier to operate in a cultural context that is very different from their home or usual context.
- The extent to which the assignment/experience offers some opportunities for feedback on the Soldier's intercultural effectiveness (e.g., using formal coaches, mentors, reliable colleagues offering informal feedback, and colleagues' assessment).

Social collaboration and knowledge sharing are emphasized in Quadrants 3 and 4. Knowledge is information that is relevant, actionable, and at least partially based on experience (Leonard & Sensiper, 1998). Nonaka and Takeuchi (1995) classify knowledge into two categories: tacit knowledge and explicit knowledge (see also Polanyi, 1962). Tacit knowledge refers to personal knowledge based on individual experience which is subconsciously understood; whereas explicit knowledge refers to more easily codified knowledge. Explicit knowledge can be communicated to others through manuals, formulae, and specifications with relative ease; whereas tacit knowledge is more difficult to convey, requiring personal discussions and demonstrations. Both types of knowledge are important but ultimately to understand a culture Soldiers need to have sufficient tacit knowledge to insure mission success.

Learning through social collaboration focuses on information sharing and co-creation. As Bingham and Conner (2010) emphasize, learning through social collaboration has been around for a long time, and, naturally occurs at conferences, in teams, at the meeting table, on the telephone, and in personal conversations. What is new are the types of technology available to facilitate social learning electronically without having parties to the conversation be in the same place or even communicating at the same time.

Learning through social collaboration (Quadrants 3 and 4) is not a replacement for education, training, or development. Rather, it is best used as a supplement to learning that occurs through formal education, training, and development (either in the classroom, field, or online). It complements learning methods in Quadrants 1 and 2. Classroom training, simulations, case studies and similar learning methods help Soldiers gain competence in known content; social learning complements these methods by helping the Soldier learn from events and situations they are immersed in as the operating environment unfolds.

Learning through social collaboration is particularly important for Soldiers to gain cross-cultural competence because cultural reality is shaped by social interactions. Social interactions provide a context in which Soldiers can share information as it becomes available and individual Soldiers, teams, and platoons gain insight into the culture in which they are immersed. Social learning provides Soldiers with a cultural support network and provides insight into behaviors or situations to observe, remember, replicate, or avoid. Social learning helps facilitate the transfer of knowledge that may not easily occur as a result of training and development. Examples of social learning include sharing stories and videos and answering and asking questions such as “what are you learning?”, “can you help

me?”, “how am I doing?”, “what people should I know?”, and “what do I need to know right now?” (see Bingham & Conner, 2010).

Valuable cultural insights from Soldiers can be shared through face-to-face interaction with others and through the use of knowledge management systems. Knowledge management involves developing an infrastructure including repositories for collecting and maintaining data, information, experiences, and lessons, as well as a social system to enhance knowledge exchange. The former involves information technology or hardware development, whereas the latter involves learning activities such as courses, experiences, mentoring and peer-to-peer interactions.

Knowledge exchange can be facilitated through knowledge management systems (networks and software) and social collaboration tools that allow Soldiers to store information about cultural encounters and to share it with others; electronic catalogues that identify each Soldier, unit, leader, team, or platoons cultural expertise; informational maps that identify where different types of knowledge are available; and on-line libraries of resources such as those found on websites (such as the Afghan languages portal of the Defense Languages Institute Foreign Language Center, which includes survival language materials and cultural orientation and language studies) (Tobin, 1998).

Communities of learning and practice in which Soldiers can learn from each other and develop a common understanding of how to successfully deal with cultural issues can be useful for providing a context for dealing with cultural understanding in real time. These communities are especially important because peers may be resources for cultural-related knowledge for which there is no readily available source. Internet or intranet-based discussion boards, list serves, blogs, or wikis represent examples of these communities (e.g., the Battle Command Knowledge System). Mission success can be enhanced because knowledge can be tapped relatively quickly, and Soldiers can share information and experiences in a way that benefits others who might otherwise not communicate because they are in different locations or platoons. One unique benefit of communities of learning and practice is that they are often built around practice- or person-based networks, not geography or functional responsibility, which allows for a broader distribution of knowledge (Sena & Shani, 1999).

One key governance decision for knowledge management systems and communities of practice is whether submitted knowledge will be reviewed prior to being accessible by users (or whether all submission will be accepted and accessible). Knowledge validation begins when an individual submits a document containing some part of their knowledge and ends when that contribution is either accepted for inclusion in the knowledge repository or rejected. Subject matter experts can filter employees' contributions rejecting those that are redundant, incorrect, or unhelpful. Without a validation process the value and quality of the available knowledge can be questioned, undermining the community of learning or knowledge management system's credibility and usage. However, for knowledge validation processes to be effective individuals must understand the processes that lead to rejection (see Durcikova & Gray, 2009). One potential strategy for alleviating the negative effects of restrictive validation processes without influencing knowledge

quality would be to encourage SME reviewers to look for any potential valuable ideas within a contribution rather than rejecting the contribution and encourage contributors to refocus (e.g., provide more details) on these ideas, findings, or interpretations.

Using and Contributing to the Learning System: A Blended Approach

It is important to note that we are advocating an eclectic, blended learning approach to developing Soldiers' cross-cultural competence. A blended learning approach is a hybrid of technology-based methods, traditional face-to-face methods (e.g., cases, classroom, role plays, etc.), and social collaboration. The blended learning approach should utilize learning methods found in all four quadrants including face-to-face-instruction, experiences and simulations that occur in a learning setting, experiences that occur in their naturally-occurring environment (cultural immersion), and face-to-face and technology-based social collaboration. Learning should be individual (e.g., self-assessment of cultural values and use of knowledge management tools), one-on-one (e.g., with a mentor), collaborative, and team based (high fidelity simulations, social collaboration). A combination of methods should be used within a class or course as well as across a curriculum or degree program. Blended learning capitalizes on the positive features of both face-to-face and online instruction. It also compensates for the lack of face-to-face networking with the trainer or instructor and other Soldiers inherent in online instruction. Knowledge and facts can be delivered using online learning and then Soldiers can practice applying knowledge and facts through face-to-face instruction and peer interaction using cases, games or other interactive methods.

A blended learning approach is necessary for developing cross-cultural competence because cross-cultural competence is based on both skills and accumulated knowledge about a culture as well as explaining and understanding and recognizing norms and practices and acceptable behavior within a specific social context. As a result, the goals of instruction should be to define a content domain, enable individual understanding of the domain prior to experience, and create an interactive learning environment in which Soldiers learn from instructors, Soldiers learn from each other, and the instructor learns from the Soldiers. To develop cross-cultural competence, the learner needs to take a more active role because social interaction is critical, particularly social interaction with locals.

Learning encounters should be followed by face-to-face and/or electronically aided interactions with peers, leaders, mentors, or instructors focusing on both sharing, understanding, and shaping what the Soldier has learned. Also, because gaining cross-cultural competence involves learning "in situ," (i.e., mastering facts and principles about a culture, practicing behaviors and interactions appropriate for the culture, and learning from others sharing their past and current experiences interaction with locals in the culture), social collaboration is necessary for effective learning. Learning should occur in a dynamic social and cultural context, such that instructional objectives include shared meaning among learners and the development of competencies for extracting, communicating, and understanding meaning among learners.

Inherent in the use of a blended learning approach is the assumption that Soldiers are able and willing to take responsibility for their own learning as well as helping others learn through social collaboration. Soldiers need to be held accountable (using rewards and recognition) for both attending and excelling in coursework, completing experiences, and social collaboration.

There are many combinations of learning methods that can be used to develop a blended learning approach for acquiring cross-cultural competence. The approach we recommend is to supplement instructor-driven learning methods included in Quadrants 1 and 2, with more social and collaborative learning methods included in Quadrants 3 and 4. Methods can be tailored to a particular stage of training or education.

For example, a traditional classroom lecture-based course might include a local intercultural immersion experience for learners and the use of a discussion board to facilitate sharing of cultural knowledge and behaviors. Institutional training courses can include a high-fidelity simulation component in which Soldiers are required to interact with locals or discuss cases based on actual cross-cultural incidents that occurred. Because unit training schedules already focus on essential tasks, to the extent possible, pre-deployment cultural learning should be embedded and evaluated in the context of those tasks. Shifting to the operating environment, Soldiers in theater might access an on-line course on Afghan culture and be responsible for sharing what they have learned from encounters with the locals using social collaboration tools. A knowledge management system might be particularly useful in the operating environment as part of unit replacements as one Army unit transfers authority to a different unit.

Much of the learning necessary to perform effectively in a specific cultural context (especially gaining valuable tacit knowledge) will occur in the country and culture where Soldiers are deployed. This learning will rely heavily on collaboration and interactions with others (social learning), including Subject Matter Experts (SMEs). SMEs include a wide-range of individuals such as military instructors and leaders, advisors, peers, civilians with cultural expertise, interpreters/translators, and trusted local nationals. SMEs are valuable as instructors delivering instruction as well as providing feedback during cases, simulations, cultural immersion and other learning events because they have instant credibility, speak the Soldiers' language, and can share their own personal experiences and tacit knowledge. Of course, SMEs need to be trained in instructional delivery, in how to give feedback, and need to understand their roles in any learning activities. Because of the difficulties inherent in scheduling training and development while Soldiers are in the theater of operations, the use of technology to facilitate delivery of instruction (e.g., web-based on-line learning) and social collaboration (e.g., access to knowledge management systems, discussion boards) is especially important to meet the need for the just-in-time nature of learning about a specific culture as the battlefield unfolds.

In addition to the proposed learning system described above and shown in Figure 1, other human resource practices including recruitment, selection, more specific time-based learning (basic training, pre-deployment and in-country training and development) promotion, and knowledge transfer need to support the development of cross-cultural

competence. Appendix A describes human resource practices that contribute to the development of cross cultural competence.

Training and Development Considerations

Current institutional demands favor training and development over personnel selection. Generally, the Army is limited in its ability to meet staffing demands and operational requirements for language skills or cross-cultural competence through initial selection. As a result, cross-cultural competence has to be learned starting in basic training. Only at the more senior levels or for specialized positions can cultural aptitudes and/or language skills be used as selection criteria. The assumption is that most Soldiers will not be operationally fluent in another language. Cultural discovery techniques and the type of learning opportunities that are provided will need to reflect this.

Several points should inform efforts to train for cultural competence. One is that one size will not fit all in the military, but all recruits should receive the same basic training, which can then be differentiated and elaborated for specific units, ranks, and situations. The key basic tasks, irrespective of specific missions, need to be identified. While the Army has limited control over who recruits are, they can and do select from among these recruits for specialized assignments. Although basic cross-cultural competence training for general-purpose forces must of necessity work with whatever the intake is, selection for later learning experiences and assignments can and should be quite focused and selective.

Ongoing discussions in the defense community are addressing whether to have all officers in the general-purpose force learn a second language, with languages assigned on anticipated need and based on Defense Language Aptitude Battery scores, as well as other considerations. There remain unanswered manpower questions associated with this approach. In teaching and maintaining language skills, there is a high cost embedded and it is unknown whether this will yield generalizable benefits when the specific language learned by an officer is not put to use in operations. Developing cross-cultural competence may be less expensive and may yield better results. It may be that the relationship between language skills and cross-cultural competence is one that is “necessary but not sufficient” or that the relationship is asymptotic indicating that at some point more is no longer much better. Further research is needed to address these questions.

Building cross-cultural competence is a different type of training problem. Unlike language skills, cross-cultural competence is *effectiveness within a context* rather than competence at a task. Cultural learning should occur as a natural part of other training and development opportunities. It cannot be expected that culture (a context) can be taught as a stand-alone, as could be the case with language skills training. Instruction should emphasize learning within the cultural context, rather than expecting personnel to fully understand a cultural prior to being there. Navigating and accurately reading the setting is critical. It would be difficult to anticipate and fully prepare for every possible cultural encounter.

Gaining cultural agility, the ability to respond effectively in multicultural and international situations, is experiential. Building one's base of knowledge to be more culturally effective will require (1) significant peer-to-peer interaction with those from different cultures and (2) opportunities to question and test one's own assumptions. The Army can leverage the cross-culturally rich and safe opportunities available within training and classroom settings (e.g., study abroad, O9Ls).

Time constraints make it imperative that training be efficient and highly relevant, with near-immediate applicability. Learning does not need to proceed from a 'theory of everything' but can be built up beginning with the simplest and/or most important aspects of the mission in mind. Learning needs to be embedded within military culture, rather than being – or perceived to be – outside it. Cross-cultural competence needs to be an integral part of other formal training that recruits receive. It should not compete for space or time with other things, but needs to be designed into existing training as an enhancement, not an add-on. The focus should be on *emic* perceptions of needs – that is, the Soldier's view of issues, competencies and performance objectives. Learning experiences should be tailored to that reality and be as experiential as possible.

The ultimate goal of initial training is to create a cadre of self-directed learners who can enter the field, not with complete prior cultural understanding, but with the tools and concepts which will enable them to learn quickly, and use what they learn, to do things which they consider necessary and important. The cultural learning techniques described in this report will enable Soldiers to do that.

Differences and limitations exist among individuals and units. All Soldiers will not gain equally from cross-cultural learning opportunities. There are facilitators (and limiters) that will enhance (or limit) the development of cross-cultural competence. An understanding of the personality and prior life experiences of trainees that may influence cross-cultural competence is important.

Learning opportunities extend beyond traditional training and education. The Army needs to assess the extent to which current education, training, and development methods used for developing cross-cultural competence utilize social competency development and social contextual learning (Quadrants 3 and 4 in the learning system model), determine the extent to which achievement of instructional objectives can be enhanced by incorporating social learning methods, and start to use social learning methods in courses and programs as well as in the theater of operations.

Tasks and assignments that are "safe" and require immersion in the host culture provide important learning opportunities. Army personnel can generally expect to deploy as a team. Army units generally have collective tasks and they stay longer than other services, with 12-15 month deployments in recent operations. Because interaction is often a collective enterprise, this can present an obstacle to interaction because individuals are not really immersed in the host culture. For example, 'FOB-its' do not interact with community. Their only interaction with nationals is on the forward operating base, 'their

turf.’ It may be necessary to re-frame how Soldiers learn as a unit. Seeing from another’s perspective or experience can be processed collectively, not just individually.

Collective engagement with the host nation can be an obstacle or opportunity. For example, both with the Peace Corps and with global executives, contact is facilitated by splitting up their communities and forcing more interaction with host nationals. The Army needs to further identify and use experiences and/or missions that are in relatively “safe” environments, such as humanitarian missions. These “safe” environments in different cultures can be a useful starting point for Soldiers to learn to use discovery tools and collaborate without experiencing the same level of repercussions of errors that can occur during a wartime mission. These experiences and missions will provide Soldiers with the opportunity to use the discovery tools to acquire a basic set of skills and understanding of cross-cultural competence and improve their cultural agility. As a result, they will be more motivated and comfortable using discovery tools during their wartime mission.

An Army culture emphasizing organizational learning, small unit learning, and self-directed learning should be cultivated. Cross-cultural competence varies between individuals in any given unit. Also, knowledge and understanding of the basic cultural domains and how to behave in relation to them emerges over the course of a mission. This creates a demand to be socially connected and exchange information through social and electronic relationships. Peers in small units (e.g., platoons, squads) play a key mediating role in cultural learning, so attention should be focused on creating and maintaining a ‘learning culture’ within these units.

There is no “end point” for acquiring cross-cultural competence. Formal training, courses and experiences are only the beginning. Soldiers will need to become self-directed learners to develop cross-cultural competence. They will likely learn the most from sharing and collaborating with officers, peers, and locals. What they should learn in training is ‘how to learn’ and ‘what questions to ask.’ Also, Soldiers need access to an information clearinghouse that holds knowledge, lessons learned, and progress of recent field encounters. Cultural professionals should be used as mentors, collaborators, instructors, and to clearly define skills and competencies needed.

ASSESSING CROSS-CULTURAL COMPETENCE

In recognition of the growing need for Soldier cross-cultural competence, the Army has engaged in a number of activities designed to promote cultural competence (e.g., Field Support Guides and Language Survival Kits; specialized language training, ARFORGEN pre-deployment regional training; Cadet Study Abroad; PMESII analytic tools). Some activities are in formal and highly structured settings (e.g., designated training time) and others involve less structured developmental activities (e.g., Soldier to Soldier discussions during relief in place/transition of authority). Regardless of the ways by which individual Soldiers acquire cross-cultural competence, there is a need to evaluate whether or not they do indeed possess the level of competence required for effective intercultural interactions. That is, sending an individual to training in any area (e.g., marksmanship) does not guarantee that the Soldier necessarily acquires the desired knowledge or skill, and typically some form of evaluation takes place (i.e., a proficiency test or rating) to verify that acquisition. This principle also holds for cross-cultural competence: The Army needs assessments by which to evaluate individual and unit-level cross-cultural competence as a means of evaluating the effectiveness of its interventions in this domain and its organizational readiness.

Need for and Purposes of Assessments

One might question the necessity of assessments of cross-cultural competence. Are the time and financial resources for developing, administering and analyzing assessments worth the costs involved? We argue that assessment of the effectiveness of efforts at increasing cross-cultural competence is absolutely essential for several reasons.

Despite the substantial interest in research on cross-cultural competence, there are still many ambiguities and unanswered questions about the extent to which cross-cultural competence can be easily acquired or if it is the byproduct of the possession of a number of individual traits (e.g., perspective taking) plus cultural knowledge. Thus, although the research literature provides a solid basis for determining how to design training programs, there is still a lot unknown about the effectiveness of various training interventions in this area. Hence, the Army needs to ensure that the programs being implemented are indeed effective.

Considerable investments are being made in raising the level of cross-cultural competence of the force, making it imperative that an evaluation of return-on-investment be made. By assessing soldier cross-cultural competence, the Army can evaluate whether these financial and personnel resources have been effectively deployed. Evaluations of cross-cultural competence levels will provide information needed to make decisions about where to direct future investments of training dollars and/or to request new monetary resources.

Selection or placement for special assignments. High scorers on such assessments might be given greater consideration for assignments requiring high levels of cross cultural

competence (i.e., ones with a great deal of interaction with the local population) or in cases where an individual might serve as a point person within units where needs for such skills are particularly critical (e.g., in negotiation settings). For example, cultural professionals such as interpreters/translators, foreign area officers, members of programs like AfPak Hands, and counter-intelligence personnel all may require high levels of interaction with and understanding of a foreign culture, and selection for those roles may benefit from consideration of cross-cultural competence.

Diagnosis of training needs. Individuals who are assessed as low in cross-cultural competence might be directed toward specific training that would not be necessary for those already cross-culturally competent. Team or unit-level profiles indicating low levels of cross-cultural competence might indicate the need for additional training and/or participation in other forms of interventions (e.g., additional briefings, greater skill building practice). Identifying training needs will be particularly important on missions where high levels of cross-cultural competence will be required, such as stability operations or security force assistance. Assessing a team's cross-cultural competence is not simply an aggregate of individual-level scores, but an evaluation of group-level dynamics and performance. Assessments of this nature may include an examination of communication and coordination among team members, the network for using individual-level skills (e.g., language) and the unit climate for developing and using cross-cultural competence.

Individual feedback for further development. Assessments can be used to increase individuals' awareness of their own levels of cross-cultural competence, increasing readiness for learning interventions that address their weaknesses and facilitate the application of their strengths.

Evaluation of training and other interventions. Assessments can be administered before and after training to assess changes in cross-cultural competence of those participating in training. Administering assessments only after training can sometimes be helpful in evaluating whether individuals reach a required proficiency level. Although one cannot say whether this proficiency was due to the training itself or was possessed by the Soldier prior to training, it nevertheless provides the check point for ensuring that all individuals are proficient.

Readiness assessments. Evaluation of the readiness of the general purpose force is focused on whether it possesses what is needed to get the job done. Given the environmental context for today's Soldiers, assessments of cross-cultural competence are a necessary component of readiness evaluation for particular types of missions. Readiness assessments would indicate whether the Soldier is able to accurately read the cultural environment and respond in an appropriate manner, or whether the unit is sufficiently prepared to consider and incorporate cultural factors in its planning and operations.

Although each of these purposes is a worthy use of assessment, we must caution that an assessment designed for one purpose, and validated for that purpose, cannot automatically be used effectively for another purpose. For example, an assessment designed to evaluate post-training proficiency is based on acquired knowledge and skills;

an assessment for selection and placement would focus on aptitude to learn and assumes individuals will have subsequent training.

In summary, the Army has recognized the importance of cross-cultural competence for mission effectiveness in today's environment and has intensified efforts to raise the level of cross-cultural competence of the force. The use of assessments to evaluate the effectiveness of these efforts is not just desirable, but is a necessary next step in this process. In the sections that follow, we discuss the "what" and "how" of using assessments for this aim.

Outcomes to Assess

Before determining how one might assess cross-cultural competence, one first needs to clarify what will be assessed. This section summarizes the steps required in specifying what will be assessed. Following Kirkpatrick & Kirkpatrick's (2006) four levels of learning evaluation, below are some examples of recommendations for assessment of cross-cultural competence.

Reactions after cultural learning interventions and cross-cultural experiences. It is recommended that reactions to interventions with either a direct or indirect goal of increasing cultural competence be assessed. Examples include the perceived relevance and utility of training and trainees' satisfaction with the training.

Learning. Learning outcomes may include cognitive, skill-based, and affective domains (Kraiger, Ford, & Salas, 1993). For example:

1. Culture-general knowledge (e.g., the ways by which cultures will vary),
2. How to assess culture norms when entering a culture for the first time (testing knowledge of cultural learning methods),
3. Pre- and post-training awareness of the criticality of cultural competence in mission success,
4. Pre- and post-training assessment of cultural self-efficacy level setting (increase overly low efficacy, decrease overly high efficacy, or reinforce appropriate efficacy)

Individual effectiveness in cross-cultural and multicultural situations. Given that culture is the context, assessing effectiveness could be conducted in a few different ways. Assessments could include pre- and post-training assessments of the factors affecting cross-cultural competence, such as listening skills and perspective-taking, or pre- and post-training ratings in simulation exercises, decision-making scenarios, or evaluations of performance in culturally-bound situations.

Operational results in cross-cultural or multicultural situations. The outcome of the cultural learning interventions and cross-cultural experiences should be an increase in the Army's effectiveness in operations in multicultural or intercultural situations.

Assessments could include situation-specific dimensions which are likely to have a component of cross-cultural competence (e.g., number of villagers who are willing to provide information to Soldiers). Other possible metrics might address security, such as numbers of IEDs or reduced casualties. Longer-term organizational outcomes may also be relevant, such as personnel retention or the adjustment and well-being of Soldiers following an intercultural deployment.

Specifications for Assessing Learning

The Standards for Educational and Psychological Testing (AERA/APA/NCME, 1999) states that assessment or test development begins with a statement of the purpose(s) of the assessment and a definition of the construct or content domain to be assessed (p. 37). One possible statement of the purpose is "To assess Soldiers' cross-cultural competence." If this statement of purpose is accepted, then attention should move to the definition of cross-cultural competence. Although cross-cultural competence has been defined in various ways, we propose that it is comprised of cultural learning and cultural agility. Note that the definition of the construct to be measured is critical because it forms the basis for the test specifications, which are sometimes called the "test blueprint." The test specifications contain a detailed description of the assessment: the content domains to be assessed and the number of items for each domain.

In addition, psychometric specifications should be articulated in the test specifications, which includes a description of the overall reliability of the assessment, the distribution of item difficulties, and the distribution of item discriminations. If item response theory is used for psychometric analyses, the target test information function may also be given. We discuss these elements of the test specifications in more detail later in this report.

As noted previously, cultural learning entails understanding cultural patterns or the meaning that lies behind what people say and do. Basic cultural domains include the physical environment, the economic system, the social structure, the political system, local norms, beliefs, religion, and taboos, communication (including both verbal and non-verbal), history, art, and material culture (i.e., the material things people value and strive for). The specifics of the cultural domains are unique to each culture, and learning about a particular culture entails learning this information. Thus, it is possible to build an assessment of a particular culture – questions would ask about the economic system, political structure, etc. of that culture – or build an assessment of cross-cultural competence, which would ask questions about how cultures differ and how one might learn about a particular culture. A test specification for cross-cultural competence might include questions about the cultural domains and why they are important, but would not focus on the details of any cultural domain for any particular culture. Questions might also require reasoning about cross-cultural interactions that is informed by the cultural domains.

In addition to assessing cultural learning, cultural agility would also be examined. An assessment of cultural agility might focus on the skills needed to adapt to diverse cultures, the ability to integrate feature of multiple cultures to create new behavioral

patterns that are efficacious, and the ability to recognize when it is not appropriate to adapt to local norms. The test specifications would further articulate each of these domains, list their subareas, identify required knowledge and skills, and list the number of items targeted to each area.

Table 4 shows the skeletal outline of a test specification based on a definition of cross-cultural competence that includes cultural learning and cultural agility; a more detailed blueprint will require the collaboration of assessment experts with the cultural training and education community in the Army.

Table 4
Example Skeletal Outline of Test Specification

Cultural Learning (....% of items)

- I. Understanding how to learn culture
 - A. Knowledge of cultural domains
 - B. Ability to learn details of a culture
 - C. Use of domain analysis, event analysis, or social network analysis
 - D. How to use community mapping
 - E. How to conduct life histories and obtain life cycle accounts
 - F. How to interpret critical incidents

 - II. Understanding of own and other cultural lenses
 - A. Knowledge of how cultures differ
 - B. Knowledge of aspects of US culture that differ from many others
-

Cultural Agility

Culturally agile Soldiers and leaders will be able to read a cross-cultural situation accurately and respond appropriately across the following orientations: (% of items)

- I. Cultural adaptation
 - A. Ability to change one's behavior so it is appropriate for the context of another culture
 - B. Soldier's or leader's response in role plays or simulations where adaptation would be needed for success
 - C. Ability to shift negotiation styles to fit contextual cues
 - D. Intercultural self-efficacy

 - II. Cultural minimalism
 - A. Ability to judge when to ignore local culture and follow dictates of one's own culture
 - B. Propensity to respond in a way that follows standard operating procedures of the Army, even though it is different from the cultural norm.
 - C. Soldier's or leader's response in role plays or simulations where the most appropriate response would be to override the cultural norm.

 - III. Cultural integration
 - A. Ability to engage in new behaviors that combine cultural perspectives
 - B. Soldier or leader's propensity to take the time to find a compromise solution with those from different cultures.
 - C. Soldier's or leader's response in role plays or simulations where the most appropriate response would be to find a compromise or integrated solution with those from a different culture.
-

Methods of Assessment

Along with determining “what” will be assessed (the test specifications), consideration must be given to “how” that will be assessed.

Self-report measures. Self-report measures are commonly used in assessing cross-cultural competence and related constructs (Ang, Van Dyne, & Koh, 2006; Hammer, Bennett, & Wiseman, 2003). Participants rate the extent to which they agree with statements reflecting different characteristics. Although self report measures are generally inexpensive and easy to create and administer, there are some drawbacks to this method. Specifically, participants rate the extent to which certain statements are characteristic of themselves, but these ratings may be due to specific self-efficacy based on prior experience in such situations, general self-confidence, or even narcissism. Self-report is heavily influenced by impression management (Tesser & Paulhus, 1983), particularly in situations where valued outcomes are at stake.

Situational judgment tests (SJTs). Situational judgment tests present respondents with a realistic scenario and ask respondents to choose or generate an appropriate response. One of the benefits of using SJTs over the self-report approach is that SJTs assess one’s ability to analyze a situation and identify an appropriate behavior, rather than assessing one’s self confidence. In a typical situational judgment test format, a narrative description of a cross cultural interaction is given, followed by multiple choice response options, and respondents choose the option that most close describes what they would do in that situation.

Practicality considerations also should play a role in method choices. In terms of realism, SJTs presented in a multiple-choice paper-and-pencil format were termed a “low fidelity simulation” by Motowidlo, Dunnette, and Carter (1990). This format is relatively inexpensive to develop and easy to administer. However, it may be influenced by other variables such as reading comprehension and general cognitive ability (Chan & Schmitt, 1997; Lievens & Sackett, 2006). In addition, SJTs assess whether an individual can recognize what to do in a given situation (i.e., the test taker selects from a list of possible answers), but it generally does not assess whether the individual could have devised the response himself/herself and it does not assess what the individual would actually do in such a situation.

A situational judgment test can also be given in a *constructed response* format where the situation is presented and then the test taker writes or speaks his/her answer, rather than selecting a multiple choice option. This format has the benefit of testing whether the test taker can create an appropriate response, rather than merely recognizing one. However, it is much more time consuming and expensive to score open ended responses and again there is no guarantee that what a test taker writes in response to the situation is what he/she would actually do (Hogan & Murphy, 2007; Kuechler & Simkin, 2010).

Behavioral ratings by others. Assessments can be made by others in the training and development context, such as supervisors, trainers, and relevant interaction partners, as to the extent to which an individual is able to function effectively across culturally diverse settings. As with any set of ratings, there can be drawbacks if raters are not motivated to rate accurately, if the behavioral sample upon which ratings are made is limited, if raters are inconsistent in the frame of reference that is used across those rated, as well as other limitations. Behavioral ratings can be helpful in contexts such as training sessions where a trainer is able to directly evaluate performance of the trained material.

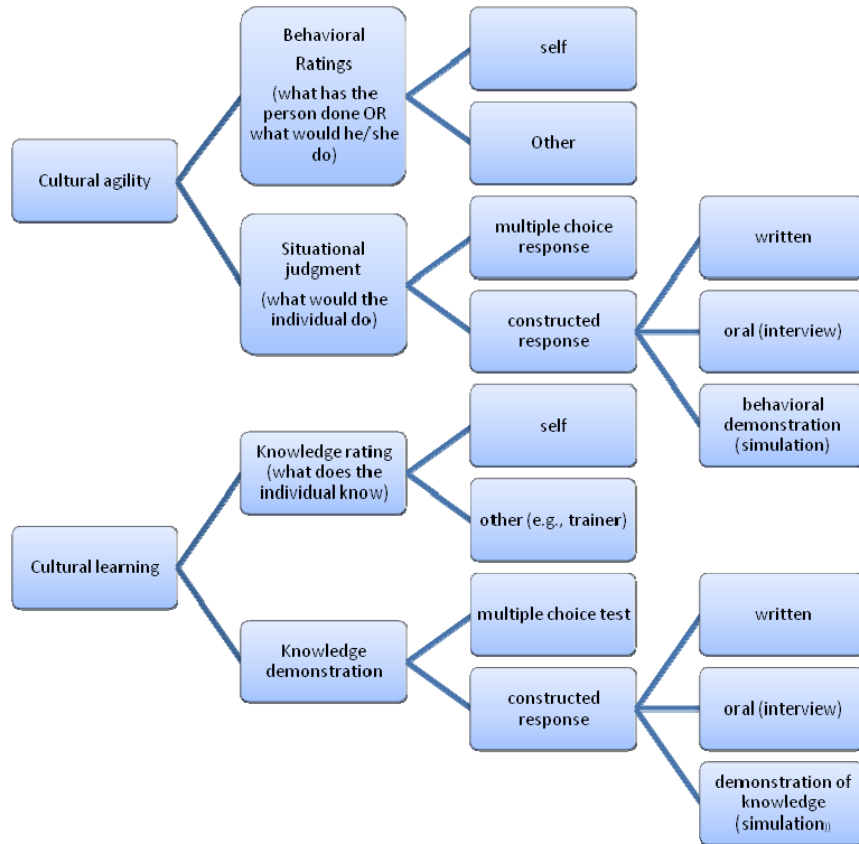
Simulations. An even more authentic assessment is a behavioral simulation of the sort used in assessment centers. Here an actor might role play a foreign national and the response of the test taker could be observed in this face to face interaction. This is a highly realistic assessment format that can closely match actual situations that a Soldier might encounter. Moreover, the respondent must create his or her response rather than select the best option from a list that is provided. Evaluating these responses requires highly trained observers, which means this format is likely to be very expensive unless it can be incorporated into existing simulation exercises. Moreover, developing the simulation exercises, training observers, assembling the test takers and observers at a site to conduct the assessment, obtaining ratings from the observers, and producing overall ratings is remarkably time-consuming and inconvenient.

Knowledge assessments. At the other end of the authenticity continuum from the simulation, direct questioning of knowledge can be an effective assessment tool. Such knowledge can be assessed via more “traditional” assessment modes such as multiple choice knowledge questions, recall tasks, and the like. The ASVAB provides a good example of such a test. Multiple-choice items are relatively easy to construct, ordinarily provide highly reliable assessments, and, as the ASVAB shows, can yield excellent prediction of performance. One criticism of this test format is that it mainly assesses declarative knowledge (e.g., "What is the capital of Iraq?") rather than skills such as being able to learn about a new cultural context. Nonetheless, multiple-choice items are used for at least part of almost all licensing exams for professions in the United States (e.g., doctors, lawyers, nurses, certified public accountants).

Biodata. Biographical data, or biodata, are historical, verifiable, behavioral and objective experiences which can indicate a propensity to behave in a certain way, preferences, attitudes, etc. Caligiuri and Tarique (2011) found that non-work international experiences (i.e., international volunteering, international vacationing, studying abroad, and family diversity) were related to cross cultural dynamic competencies.

Working from a definition of cross-cultural competence comprised of both cultural learning and cultural agility, Figure 3 illustrates different ways of assessing competence. Although any of the ways or any combination of the ways illustrated may be undertaken, decisions on methods should consider both psychometric quality (e.g., reliability and validity) and feasibility (e.g., ease of administration, cost).

Figure 3. Methods of assessing cross-cultural competence



Considerations in Assessment Development

There are many practical issues that must be addressed for test development and use. A first issue is the level of *professionalism* that is desired. Depending on the uses to be made of a test, test development can range from a single individual writing items to a specification largely within his/her head and then, with no pretesting, placing items on an exam and administering it. No post-test item analysis would be conducted and test takers' scores would likely be calculated as the number of items they answered correctly. At the other end of the spectrum are professionally developed exams that meet the high standards of the *Standards for Educational and Psychological Testing* (AERA/APA/NCME, 1999). Here subject matter experts would draft items, which would then be reviewed by a panel of experts. Then a technical editor would ensure that the items are clearly written with correct grammar. Items would be pretested in samples of several hundred, perhaps by embedding pretest items in operational forms (i.e., the test takers would not know which items are operational and which are pretest). Items with inadequate psychometric properties (see subsection below) would be discarded. A test form would be created by drawing items, according to the test specifications, from the pool of appropriately performing items. After a review for cluing (i.e., does one item provide the answer to another item?) and a careful examination for typographical errors, the test form would be ready for administration. After the test was administered, an item analysis would be conducted to ensure that all items functioned as expected; any problematic items would be removed. Another panel of experts would examine the test form as well as performance data (e.g., percent correct on each item) and, based on their consensus judgment, a passing score would be set.

Depending on the nature of cross-cultural competence assessments and the uses to be made of the scores, the Army might adopt test development procedures at any point along the continuum described above. For example, instructors might be asked to add some cross-cultural content to their classes; here a relatively informal approach might be taken. Alternatively, if all junior enlisted receive a standardized training module, a more professional approach to test development would be warranted.

Another decision involves the *administration mode*. The assessment might be given as a paper-and-pencil test in proctored sessions, a computerized test in a computer lab, or an unproctored Internet test taken at a time and place convenient for the test taker. If the stakes of the assessment are high (see p. 56), then a proctored environment is required, but unproctored tests have worked well for many low to medium stakes assessments (e.g., Beaty et al., 2010; Nye, Do, Drasgow, & Fine, 2008). Specifically, little evidence of score inflation has been observed for unproctored tests as compared to proctored tests (Nye et al., 2008), and the correlations of the unproctored tests – at least for non-cognitive assessments – with job performance measures have been found to be virtually identical to their proctored counterparts (Beaty et al., 2010).

If computerized testing is a possibility, then a variety of options can be considered for the format of the test items and test taker responses. Traditional text-based multiple choice items are used most frequently, but computerization enables audio and video to be

presented along with a wide range of response options (see Zenisky & Sireci, 2002, for a review). For example, video clips of cross-cultural interactions might be presented to a test taker. At a critical juncture in these interactions, the video would stop and the test taker would be asked to type or speak what he/she would do in this situation. Alternatively, animation technology has developed rapidly in the past few years and video with avatars is increasingly easy to develop. Reynolds and Dickter (2010) note that high-fidelity item presentations such as that afforded by technology have a number of benefits, including the ability to enhance standardization, incorporation of new item formats, and greater engagement of those taking the tests, but also present a number of challenges such as additional deployment requirements (e.g., additional server capacity, compatibility of delivery site hardware), Internet or computer testing site accessibility concerns, and costs of any modifications to items that are highly specific (e.g., a video of an encounter can become outdated and need to be reshot).

In developing assessments, it is important to consider likely *perceptions and reactions of those assessed*. Research has found that negative reactions to assessments can reduce test taker motivation to perform well on the test (Arvey, Strickland, Drauden, & Martin, 1990) as well as their pursuit or acceptance of job placements based on that test (Rynes, Bretz, & Gerhart, 1991). Consequently, perceptions of face validity (i.e., do test takers believe the assessment measures what it is supposed to measure) and perceptions of fairness of the assessment procedure should be examined. Negative perceptions and attitudes would indicate some revision in the testing process was needed.

Going beyond those who will be assessed, a broader *stakeholder analysis* may be very helpful to conduct while designing an assessment so as to ensure successful implementation. For example, it is wise to connect with those who will be managing the assessment process (e.g., administrators), those who have a strong interest in the outcomes of the assessment process (e.g., individuals heavily involved in promoting and considering cross-cultural competence, such as trainers), and those who will need to explain the need for assessment (e.g., command). Consulting all of these groups for input at the design stage facilitates their buy-in to the assessment process and ensures that important practical constraints (e.g., limits on time or facilities) are not overlooked. An early involvement of stakeholders is a key step in later marketing the importance of the assessment.

Psychometric Considerations

There is an extensive literature on what constitutes a good assessment. The *Standards for Educational and Psychological Testing* (AERA/APA/NCME, 1999), for example, provides extensive information and recommendations. A non-technical summary is provided by Drasgow, Nye, and Tay (2010). At the most basic level, an assessment should be reliable and valid for its intended use(s).

Reliability refers to the consistency of test scores when a testing process is (hypothetically) repeated on a group of test takers. Reliability is important because an assessment is likely to be administered only one time to any given Soldier and the evaluation should not be based on that assessment to reflect transient error associated with

that measurement occasion or context. Reliability is sometimes estimated by administering a test at Time 1 and then readministering the same test to the same test takers at Time 2, where it is hoped that the interval between Time 1 and Time 2 is long enough that test takers do not remember their answers, but short enough that the test takers have not changed in regard to the attribute being tested. This approach may not be appropriate when respondents have experienced training or another developmental experience during the intervening period.

Another approach to estimating reliability involves administering two forms of a test to a single sample and investigating the extent to which test takers obtain similar scores across forms. In a third approach, the internal consistency of answers to items on a single form of a test is evaluated to estimate reliability. In addition, there are a number of other approaches to estimating reliability.

Various quantitative indices of reliability can be computed. These include, for example, the correlation between scores on the same form across Times 1 and 2, the correlation of scores across different forms, coefficient alpha, generalizability coefficients, and the test information of item response theory. In any case, the key issue is whether test scores are stable enough that they can be interpreted meaningfully. When construct irrelevant variance in test scores (i.e., random error and systematic error) becomes too predominant, the scores cannot be appropriately interpreted as measures of the construct the test was designed to measure.

For an assessment of cross-cultural competence, reliability might be estimated by a method based on internal consistency (e.g., coefficient alpha). An important question involves the dimensionality of the assessment: If the test is largely unidimensional (i.e., it measures a single underlying attribute), then the traditional coefficient alpha would be appropriate. However, if it is strongly multidimensional, then coefficient alpha could be computed for unidimensional subsets of items and then a formula for the reliability of a composite could be applied.

Test specifications play a role in evaluating the psychometric quality of an assessment. The specifications will provide guidance as to acceptable levels of reliability, distributions of item difficulties, and distributions of item discrimination. For example, although an assessment might typically contain a range of easy to difficult items, a test for selection into a military occupational specialty (MOS) that requires very high levels of cross-cultural competence might have a different item difficulty distribution (higher mean difficulty) than one to assess general training needs.

Provided that a test is reasonably reliable, attention should focus on *validity*: Is the proposed interpretation of test scores appropriate, meaningful, and useful? This is not just a hypothetical question; evidence should be accumulated to support and justify a proposed interpretation. Importantly, it is the interpretation of a test score that is validated, not the test itself. For example, one interpretation of a test score might receive extensive empirical support while another interpretation of scores for that same test might be flatly incorrect. For example, if a measure is purported to be an assessment of readiness, then validation

would require that the measure is a good predictor of performance (i.e., a Kirkpatrick Level 3 or 4 evaluation). If a measure is intended to assess learning, then validation might entail demonstrating an increase in knowledge from pre- to post-training (i.e., a Kirkpatrick Level 2 evaluation).

An assessment of cross-cultural competence following training in this area would typically focus on *content validation*. Here, the relationship between the assessment's content and the construct it is intended to assess is the focus of inquiry. For this reason, the definition and articulation of cross-cultural competence is of critical importance. Once the definition is articulated, the type of assessment to be used should be decided.

An important caveat regarding validity is in order. If the assessment has been designed and validity evidence gathered in relation to one purpose (e.g., evaluating training effectiveness), that information is not necessarily informative about the utility of the assessment for another purpose (e.g., placement). It is critical that as the Army considers using cross-cultural assessment tools for multiple purposes, appropriate validation evidence should be gathered in support of each purpose.

Parameters of Assessments

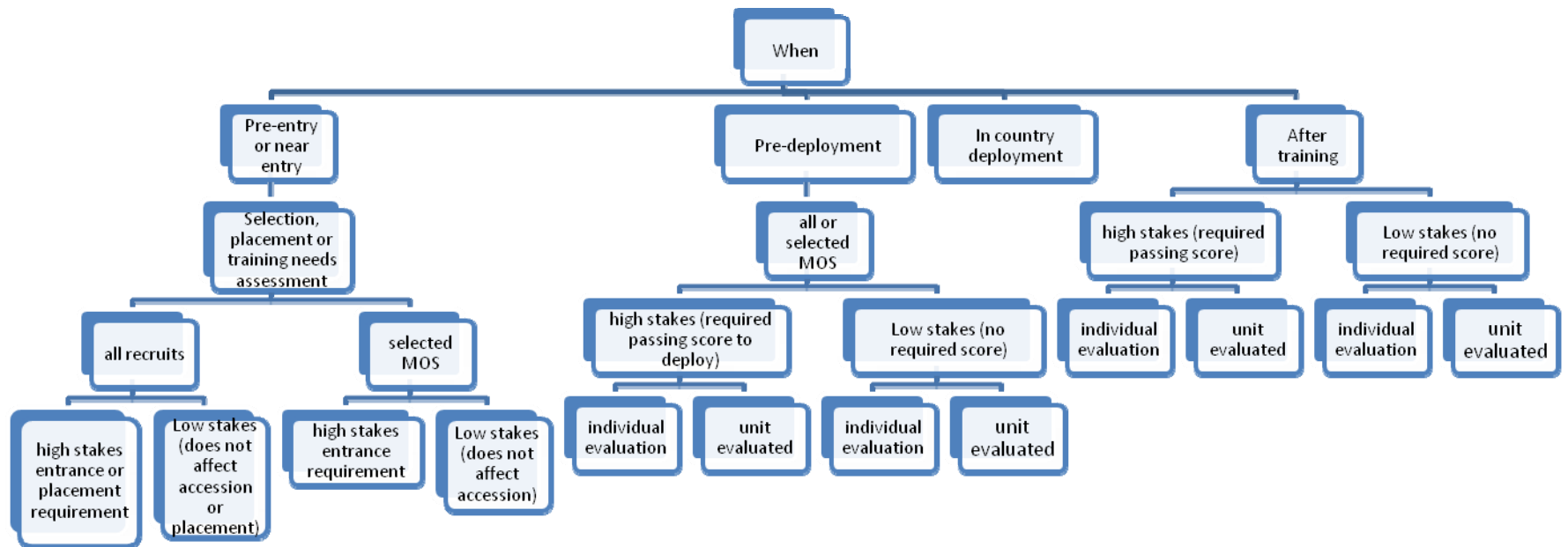
Once a commitment has been made to assess levels of cross-cultural competence and decisions have been made regarding exactly what will be assessed and how it might be assessed, there are still many choices remaining regarding the nature of those assessments. In this section, we discuss some of the practical decisions to be made in an assessment program. Specifically, here we discuss when assessments might be given, who might be assessed, what the outcomes of assessment might be, and how assessment data might be collected at multiple levels of the organization. Figure 2 illustrates these decisions.

When and Who

Assessments may be used to evaluate cross-cultural competence at multiple points in the career of a Soldier. Indeed, the *Army Culture and Foreign Language Strategy* specifically considers that culture capability expectations would differ for different career stages. Consideration needs to be given as to what assessment might look like at these various points, and the pros and cons of assessment at each juncture.

Pre-entry selection. Organizations often assess skills and characteristics prior to hiring to determine who to select. The Army currently employs multiple assessments for this purpose (i.e., the Armed Services Vocational Aptitude Battery [ASVAB] and psychological, physical, and medical evaluations). Assessment of cross-cultural competence prior to entry would indicate that the Army saw this competence as an essential requirement to being a Soldier.

Figure 4. When, who, and how of assessments



As earlier sections of this report indicated, there are some specific, stable individual differences that relate to cross-cultural competence (see also Abbe, Gulick, & Herman, 2007 and Caliguri et al., 2010 for reviews), but there is also evidence to support the “trainability” of aspects of cross-cultural competence.

Note that the Tolerance facet of Openness to New Experience dimension is likely to be related to cross-cultural competence and is being assessed as part of the Tailored Adaptive Personality Assessment System (TAPAS) initial operational test and evaluation (IOT&E) currently underway for Army enlistment. Scores on Tolerance might be useful as a surrogate for a test of cross-cultural knowledge and skill at entry, although it is important to note that assessing predictors of competence is different than assessing competence. Although predictors of competence may be a good proxy for actual competence, more research is needed to test the strength of relationship between predictors and actual competence as well as the utility of this approach.

At or near entry for placement purposes. Organizations use assessments to determine if individuals possess certain competencies that might make them better able to perform certain jobs or better able to complete certain training programs. For example, the Army considers various ASVAB composites for this purpose. The Army might consider the use of cross-cultural competence assessments for placement purposes for jobs with a high level of intercultural contact (e.g., interpreter/translators or other cultural professionals), perhaps administered in conjunction with the Defense Language Aptitude Battery. Additionally, assessments may be used for determining whether Soldiers’ possess the minimum level of cross-cultural competence needed for mission effectiveness. Given that the number of jobs requiring this high level of competence is small relative to the numbers of individuals assessed by the Army at the point of entry, assessments of cross-cultural competence may not be needed at entry for placement purposes, but their use may be considered for those who will occupy positions requiring high levels of cross-cultural competence.

At or near entry for training needs assessment purposes. Assessments can be used as part of a training needs analysis (Goldstein & Ford, 2002) to determine what training is needed at the individual, military occupational specialty (MOS) or unit level. That is, assessments of cross-cultural competence can be administered and training recommended (or mandated) for those falling below a certain score. Assessments can be administered to individuals, but training decisions can be made at an individual or aggregate level (i.e., those MOS where individual scores are low and the job requires considerable cross-cultural competence would be first priority for deployment of training resources).

Prior to deployment. “Just in time” training or skill formation at the point when it is needed (Beckett, Agashae, & Oliver, 2002) has some positive features in that individuals are psychologically ready to learn and are given immediate practice in using the skills trained. By using assessments for needs identification purposes just prior to deployment, individuals will have a greater “training readiness” in terms of ability to

understand the importance of the training for their mission and a desire to obtain training and to retain knowledge. Training readiness involves having the basic skills required by the training as well as the motivation to learn the training content (Colquitt, LePine, & Noe, 2000). Assessment used in this fashion might provide the self-awareness to help individuals be motivated to learn. They might also increase motivation to transfer learning from the pre-deployment cultural training as the need to apply training is clear (Gegenfurtner, Veermans, Festner, & Gruber, 2009). Implementing cross-cultural competence assessments before deployment to dangerous environments where cross-cultural competence is critical to Soldier safety would allow sufficient time for Soldiers or units to re-train if necessary and to participate in learning opportunities that increase cross-cultural competence.

After training, whenever it occurs. Assessments can serve an important evaluation component and can be used in a manner akin to a proficiency certification at the end of training, regardless of when or where that training occurs. In this case, using the assessment can provide a summative evaluation of training effectiveness (i.e., did the trainees benefit as intended) (Goldstein & Ford, 2002). In addition, the assessment itself can be a developmental intervention, providing feedback to the learner for use in further learning and self-development.

Stakes Associated with the Assessment

Assessments are often referred to as either *low stakes* or *high stakes* (Tippins et al., 2006, p. 192). Using assessments of cross cultural competence in a low stakes fashion would mean that there were no individual consequences of note associated with the score one obtains on the assessment. That is, there is no personnel action taken, no decision made regarding placement or job duties, and no benefit of any kind (e.g., certification) denied to those who score poorly on the assessment. If the cross-cultural competence assessment were used in a high stakes fashion, some outcomes of value to individuals would be associated with their scores on the assessment (e.g., job placement, bonus, certification, no need to retrain) and/or the scores of those Soldiers under their command.

One advantage of a high stakes assessment is that test takers are motivated to do their best to obtain a high score. This can be valuable during training in that trainees are likely to pay attention in class, do assigned homework, and study diligently. Unfortunately, trainees may also answer test items in socially desirable ways, copy answers from other test takers, and even devise intricate cheating conspiracies.

Cheating and “faking good” are not ordinarily problems for low stakes assessments. However, trainees can be poorly motivated to learn if they are evaluated by low stakes means. For example, a former governor of Illinois, now convicted of lying to federal investigators, mandated ethics training for all state employees (Office of the Executive Inspector General for the Agencies of the Illinois Governor, n.d.); given this context, it is difficult for state employees to take the training seriously. However, deployment to hostile environments can involve life or death situations. For this reason,

we expect trainees to be motivated to learn without linking assessment to other outcomes, particularly shortly before deploying and therefore low-stakes formats are likely appropriate.

Levels of Assessment

One final point that should be noted is that we have focused our discussion primarily on individual level assessment; that is, an examination of the cross-cultural competence of the individual Soldier. Assessments of individuals can be aggregated to create a picture of the competence of units (e.g., the average score of a platoon), and one can also design and administer an assessment at the unit level. For example, rather than assessing the cross-cultural competence of individuals, one might design an assessment exercise for an entire squad in which the score is based on the competence demonstrated by the squad as a collective. Such assessments would need to be well-integrated with unit level training and presuppose a certain level of cross-cultural competence already exists in the individual members. Individual-level assessments should be the priority in the near term, but unit-level assessments are also important and should receive attention as a longer-term goal.

Administration Considerations

As part of assessment development, some planning effort should be devoted to how the assessment will be supported during administration. This section highlights several issues that would be important administrative concerns regardless of what methods of assessment are used.

Provision of Feedback

Prior to deploying an assessment, decisions should be made regarding what, if any, feedback will be given to those assessed. In high stakes contexts, individuals expect to learn whether or not they have met a criterion and will receive an outcome (e.g., a placement decision). However, in low stakes contexts, individuals often receive no information at all on how they did on the assessment. Good professional practice (London & McFarland, 2010) would advocate providing some explanation of test results in a reasonable period of time after assessment and in terms that the individual can understand. The assessment itself can provide a learning opportunity. Taking the time to provide Soldiers with feedback may demonstrate the critical importance of cross-cultural competence to mission effectiveness – much like the feedback Soldiers are given on their physical fitness or marksmanship.

If the assessment is used to pinpoint the need for remedial training, subscores might be appropriate feedback (e.g., a score on cultural minimalism; note, however, that the reliability of the subscores should be high enough to provide useful information). London and McFarland note that there are benefits and costs of providing feedback: benefits include guiding individual future development (i.e., maximizing value from

assessment dollars), increasing self-awareness of strengths and developmental needs, and increasing understanding of expectations; costs include the costs of delivery, obligations to follow-up or provide additional information on how to develop oneself, possible individual declines in self-confidence when receiving negative feedback, and the time and energy of individuals to receive and process feedback.

Policy and Support

As with any assessment implementation, decisions must also be made about administrative policies. Which policies are necessary and what they might consist of will be influenced by the purposes, timing, and stakes of the assessment. For example, if an assessment is used in a high stakes context, there is a need for policies on: a) retesting (if possible, how often, after what interval), b) exemptions from assessment (who or when one will be granted, who grants them), c) cheating (what occurs when an instance of cheating is uncovered), d) test security procedures, e) administrators (need for, who can serve), and f) data management, retention and use (e.g., who has access, how long stored, where stored). Although a low stakes assessment might not require policies on cheating or call for much concern over retesting or exemptions, policies regarding administration are still necessary to ensure appropriate use of the assessment tools.

Assessments require ongoing support for maintenance, updates, and revisions. Test specifications should be revisited periodically and revised as needed. Items on the test should be examined on a regular cycle to ensure their content does not become outdated. Test norms should be developed and updated as training become more effective. For large scale assessments, alternate forms should be developed and equated so that scores on the different forms can be used interchangeably. Also, in an uncertain operating environment, planning for change has to occur; an assessment tool will need continual refreshing and updating. In particular, the scenarios used in SJTs will need to be updated for operational relevance. High quality and effective assessments can fade into useless ones in a short time if planning for change and resources for maintenance are not considered.

Support for test administration is also needed. Administrative personnel may be required depending on the nature of the assessment (e.g., simulations require raters, proctored computer or paper and pencil tests require test administrators); similarly, facilities and equipment may be needed. In the case of high fidelity computerized assessments, technical support is also needed. Materials describing the nature of the assessment and its purpose are needed. Score reports are needed for all parties who will be informed about the outcome of testing.

Assessment Recommendations

In this report we have reviewed what to assess when evaluating cross-cultural competence, how to assess it, when to assess, whom to assess, and additional needs to

support an effective assessment system. This section summarizes those recommendations.

Clarify the specific purposes of the assessment. Diagnosing training needs, placement of individuals, or evaluating the effectiveness of training may have somewhat different requirements for development and validation. We base our recommendations on the assumption that evaluating training effectiveness is the primary use of the assessment tool. In other words, do Soldiers learn the expected knowledge (e.g., the ways in which cultures vary), behaviors (e.g., how to assess cultural norms), or combinations thereof, as a result of the training?

Develop an assessment specification or blueprint that elaborates on the definition of cross-cultural competence. For example, the concepts of cultural learning and agility could be used to specify the content domain to be tested. The development of the specifications should involve relevant individuals who are key stakeholders in cross-cultural training design and delivery within the Army. These stakeholders can assist in the development of a communication plan that maximizes acceptance of the new assessment in the general purpose force.

Test specifications should be developed and should cover the relevant areas of assessment as well as the type of format (e.g., situational judgment, self-report, simulation exercise) to be used. Then items should be written, edited, and pretested. Depending on the uses of the assessment, appropriate cut scores may need to be set, and/or norms established. Finally, one or more test forms should be assembled.

As the test specifications are developed, it is important to consider alignment with cross-cultural training curricula. It does not usually make sense to "teach X but test Y." Thus, a test development team should work closely with the cultural training and education community.

Design an assessment tool or set of tools. For many purposes, using situational judgment tests and knowledge demonstrations may be more practical and valid for assessing competence than behavioral or knowledge ratings by self or others. More specifically, we recommend that the Army employ the use of high fidelity assessments (e.g., Joint Readiness Training Center) that are as realistic as possible within the practical constraints of delivering such an assessment to a large number of dispersed individuals. In addition to assessing individual Soldier competence, such assessments should also measure the cross-cultural competence of the team or unit. This is critical, as unit members will likely vary on their level of cross-cultural competence and motivation for effectively interacting with indigenous populations, foreign militaries, or NGOs. In situations where high-fidelity simulations are not possible, computerized situational judgment and situated knowledge demonstration assessments may be appropriate. Although these may not be as realistic as some of the existing Army simulations, they can still be effective and require considerably less time and fewer resources to administer.

Ensure any assessment tools have good psychometric qualities. Specifically, the reliability and validity of the assessment(s) for each specific use should be established prior to implementation. A technical manual for each assessment tool should be created and, according to the *Standards for Educational and Psychological Testing*, it should specify "the nature of the test; its intended use; the processes involved in the test's development; technical information related to scoring, interpretation, and evidence of validity and reliability; scaling and norming if appropriate to the instrument; and guidelines for test administration and interpretation" (p. 67).

Ensure the assessment is acceptable to test takers. It is recommended that reactions to interventions with either a direct or indirect goal of increasing cross-cultural competence be assessed. Examples include pre and post awareness of the criticality of cross-cultural competence in mission success and pre and post assessment of cultural self-efficacy level-setting (e.g., increasing overly low efficacy, decreasing overly high efficacy, or reinforcing appropriate efficacy).

Budget for sufficient administrative support to adequately develop and maintain the assessment system. Although it is not the goal of this report to provide a cost analysis of specific recommendations, we can make some general statements regarding the nature of resource requirements for a high quality assessment to be developed and deployed. Specifically, there will be a need for expert personnel (internal or contracted) who are well-versed in assessment design and in psychometrics to guide the development of specifications, to design the tool, and to evaluate its psychometric properties. In addition, experts in cross-cultural competence are needed to work closely with the test development experts as the content of the test is fleshed out and items are written. These experts would determine how the definition of cross-cultural competence translates into test items and the number of items that cover each subcomponent of the definition. For example, in designing test items for the cultural agility aspect of cross-cultural competence, test developers may consider including a number of specified items on cross-cultural adaptation, minimalism, and integration.

A second key resource need will be time of Soldiers for input and review of the assessment. As mentioned earlier, it is vital that any assessment be one that Soldiers feel is a face valid one. Soldier input into the design of the test specifications will be important, as will involving a number of Soldiers in item development and review processes, and in psychometric evaluations (i.e., groups of Soldiers will be needed to take early versions of the assessment).

Potential Challenges

As with any large-scale undertaking, there are likely challenges in the design and implementation of a new assessment. The following paragraphs describe some likely challenges to anticipate:

Lack of buy in from all sectors. There may be some who question the need for cross-cultural competence in every Soldier; there may be others who believe in the need

for cross-cultural competence but do not see the need for assessment; and there may be still others who believe in the need for cross-cultural competence and the need for assessment, but think the assessment should be of a different nature (e.g., self-ratings or simulations). A team assigned with the task of ensuring a well-developed communication plan about the new assessment, its purpose, and its value can address this challenge.

Disconnect between assessment and training efforts. If the assessment design proceeds in isolation from cross-cultural training curriculum design, the Army may find itself with different messages about what it takes to be cross-culturally competent. Involving training personnel in assessment design AND considering the outcomes of assessment in training design can help lessen this potential problem. Desired outcomes of cultural training identified during program design should be used for program evaluation and included as part of assessment for determining if Soldiers have course prerequisites or minimum competency levels needed for the course or curriculum.

Time constraints. Demands on a Soldier's time, particularly in pre-deployment, are heavy. There will naturally be a desire for the assessment to be brief and easily delivered, and many high quality assessments can be designed to be relatively short. However, pressures for a quick assessment tool need to be reconciled with a desire for a quality assessment. Psychometricians complain that "validity per minute" is not a true metric, but often one they are forced to make judgments about. Seasoned experts should be able to minimize tradeoffs between length of assessment and psychometric qualities of the assessment. In addition, because many feel a strong need for an assessment of cross-cultural competence, there may be a desire to rush the development process. While an aggressive timeline is certainly appropriate, care must be taken that such pressures to deliver do not result in cutting corners.

Unmotivated test takers. We noted earlier that low stakes assessments can result in individuals having no motivation to perform well on the assessment because no personal outcomes are tied to their performance. To offset this potential problem, clear communication about the importance of cross-cultural competence, about the value of the assessment tool in self-diagnosing needs, and feedback to individual Soldiers are all recommended.

Inappropriate use of assessments. We noted earlier that the purposes for which the assessment will be used have to be considered in validation of the tool. There is always a desire to take something that appears to work well for one purpose and use it in many other ways. However, an assessment that is effective for evaluating the outcomes of training and is well-regarded within the Army for this purpose, might be totally ineffective for selecting Soldiers and intensely disliked if implemented for that purpose. It is critical to not have "mission creep" when it comes to the mission of the assessment, and to only allow its use for its designated purposes.

OTHER RECOMMENDATIONS AND NEXT STEPS

The Army's ability to prepare personnel for operations in multicultural settings will depend on selecting and institutionalizing interventions and programs that address cross-cultural competence. For the Army to build cross-cultural competence not only at the individual and unit levels, but also at a broader organizational level, it must be institutionalized. Here we present some considerations for Doctrine, Organization, Training, Materiel, Leader Development, Personnel, and Facilities (DOTMLPF) that will support institutionalization, with particular emphasis on training, leader development, and personnel issues.

Doctrine. Doctrine can help document critical incidents involving cross-culture competence (or lack thereof) and help create and maintain a learning culture within the Army. The recent inclusion of "adapt" as a core warrior task, in addition to the traditional "shoot, move, and communicate" lays the groundwork for incorporation of learning and adaptability into doctrine and other guiding documents.

Organization. The Army would benefit from expanded use of interpreters, 09Ls, cultural advisors, or other high-contact roles who interact frequently with locals; these personnel can serve as instructors, social collaborators, mentors.

Training. Cultural training solutions have to be effective and efficient because training and education schedules are already packed with essential tasks. To the extent possible, learning should be embedded into other lessons. This approach will increase the efficiency of learning and send the message that cross-cultural competence is mission critical.

Language training complements but is not a substitute for cross-cultural competence. Education, training, and development are all important for developing cross-cultural competence and should complement each other to facilitate learning and create self-directed learners. A coherent learning strategy is needed to address both cultural learning and cultural agility.

Soldiers cannot learn everything they need about culture in formal courses – they need experiences and to gain knowledge through social collaboration, just-in-time training. The "lone learner" model relying on classroom instruction is outdated and unrealistic. The Soldier must continuously learn. A continuous learning doctrine should be emphasized as part of cross-cultural competence learning to reinforce self-directed learning, including collaboration, courses, and experiences. Implementing the concepts and principles discussed in the Army Learning Concept for 2015 will help make that shift.

Specialized positions will require differentiation. Individuals (and units) engaged in specialized assignments, such as military police duty, training of host country nationals, or medical work, will require training and development opportunities for that role. Some of the questions that will need to be addressed in these respects include: How

should individuals be evaluated and selected for more advanced training? When is the appropriate time and level of learning?

Incorporating assessment into training and education efforts is critical to insure both that learning is occurring and that the learning contributes to mission performance and other organizational outcomes. Validating the effectiveness of training for these purposes is entirely a different matter than validating assessments of cross-cultural competence and will require a completely different approach. For example, when deployed troops return home they might be interviewed about their preparation and training for their missions. Do they feel that they were well trained to collaborate with individuals from the host country and establish rapport? Did they understand the dynamics underlying interactions with individuals from a different culture? Were they effective in the actions they took in support of friendly cultural groups as well as against hostile groups? The answers to these and other questions could address the effectiveness of training.

Materiel. The Army would benefit from identifying a hand-held device that can be used for delivery of learning, instruction or social collaboration. Soldiers are issued common weapons and protective gear. They also need a common collaboration and learning platform, but one that does not create an additional burden on Soldiers and units.

Leader Development. Command and General Staff College (CGSC) should incorporate a cross-cultural competence component focusing on assessment of cultural values, agility, and competence to create personal awareness and to allow for a snapshot of current cross-cultural talent in the officer ranks. CGSC is also ideally positioned to provide courses and experiences designed to increase officers' cross-cultural competence. In addition, serving in a cultural specialist role or taking on cultural assignments (e.g., Foreign Area Officers or military advisors) should be beneficial (rewarded, part of promotion criteria) not harmful or neutral for an officer's career.

Personnel. For institutionalization of cultural capabilities, personnel issues are as important as training and leader development solutions. It starts with recruitment. Recruiting messages should be changed to become more aligned with the Army's role in the "humanitarian aspect" of military missions, (e.g., limited intervention, population-based counter-insurgency operations, peace operations) as well as the dynamics of those missions.

There needs to be an assessment of cultural values, agility, and competence of Soldiers to gain an understanding of the strengths and improvement areas for individual Soldiers, officers, and units. This can provide an inventory of cross-cultural competence, as well as increase Soldiers' awareness of the importance of regional and cross-cultural competence and improve their readiness to learn in programs and experiences they will encounter in their military career.

Assessment tests can and should be used to select personnel with the "right stuff" for new missions (e.g., cultural adaptability and language skills for counter-insurgency or

security force assistance). Assessment is an important longer term human capital strategy but also helps to insure that Soldiers are motivated and ready to learn the cross-cultural competence required necessary to success in current and future missions.

Several scholars have examined how individual differences relate to various criteria of training and development effectiveness (Gully & Chen, 2010). This research has shown that, in general, individual attributes have an influence on motivation to learn, acquisition, retention, and reproduction of learned capabilities (see Table 2), suggesting they should be considered in selection and assignment for intercultural roles.

Rewarding and incentivizing cultural learning and agility provides a powerful tool to support the development of cultural capabilities in Army personnel. Offering incentives for language, regional, and cultural studies communicates the value that the organization places on these skills. In addition, Soldiers' cross-cultural competence and officers' leadership in helping Soldiers gain cross-cultural competence has to be evaluated and rewarded as part of promotion into and through various levels of leadership positions. Leaders need to take an active role and model the use of cultural learning tools. Where appropriate, the cultural capabilities of the unit, platoon, and/or team should be considered in officer promotion.

The use of rewards and incentives for cultural learning and agility are particularly important given that cross-cultural competence is an open skill, or one that requires a high level of cognition and is more difficult to train for. Unlike closed skills, which only require the learner to duplicate exactly what was learned in the appropriate situation, there is not a single correct way Soldiers need to act to ensure intercultural effectiveness (Blume, Ford, Baldwin, & Huang, 2010; Salas, Milham, & Bowers, 2003). Although this provides the flexibility of multiple response options for each situation the Soldier encounters, the ambiguity in not having one 'right' method of interaction may be challenging for some Soldiers. High levels of self-efficacy and motivation to learn are needed in such instances and may be reinforced through reward and incentive programs that provide the supportive context for the transfer of such skills.

Facilities. Where security concerns permit, an increased presence in the local communities of the operating environment and increased Soldier interactions with host nationals (e.g., interpreters) on military installations would provide additional opportunities for cultural learning. Soldiers would also ideally have increased access to digital learning devices, including personal computers for just-in-time cultural information, in order to collaborate and share learning with others (lessons learned, after action reviews) and complete formal cultural courses.

CONCLUSION

Consistent with the Army Capstone Concept (2009) emphasis on the need for flexibility and adaptability at all levels, cross-cultural competence will enable Soldiers to meet the challenges of an uncertain future and adapt to the demands of working with, in,

and among foreign cultures to perform their missions effectively. Cultural learning and cultural agility can provide foundational capability for the socio-cultural component of those missions. This report has presented methods and a learning system framework for developing and sustaining that capability throughout the Army. Ongoing assessment will also be needed to insure the effectiveness of the Army's efforts to develop cross-cultural competence and the implementation of the Army Culture and Foreign Language Strategy.

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Appendix A
Human Resource Practices for Developing Cross-Cultural Competence

	Sample Training and Development Practices	Sample Assessment Practices	Benefits and Concerns
Recruitment Attract future Soldiers who are predisposed to developing cross-cultural competence.	<ul style="list-style-type: none"> • Positive intercultural interactions in recruitment commercials and other materials • Recruitment brochures highlighting intercultural collaboration in addition to technology and weaponry • Recruiters can emphasize the acquisition of cultural and linguistic competence as a benefit of enlisting 	<ul style="list-style-type: none"> • Identify Soldiers with high intercultural performance potential (see Table 2 for relevant dimensions). 	<ul style="list-style-type: none"> • Help attract additional (and different) types of future Soldiers – those interested in cultural collaboration, international travel, and humanitarian support • Signal the need for collaboration with people from different countries; set the tone for future operations
Selection and Classification Identify and assign those Soldiers more likely to develop cross-cultural competence and be effective on missions requiring cross-cultural competence.	<ul style="list-style-type: none"> • Assessment at entry can provide information for training needs analysis • Identify those who may be likely to cause potential problems when stationed in foreign countries due to racism or xenophobia 	<ul style="list-style-type: none"> • Validate the computer adaptive personality test (currently being used in the Military Entrance Processing Stations) for predicting those predisposed to develop cross-cultural competence • Develop and validate other assessment tools that are specifically designed to identify those who can develop cross-cultural competence • Differentially place those with greater cross-cultural competence or relevant predispositions into those roles with greater cultural interactions 	<ul style="list-style-type: none"> • Identify those who may be potentially harmful to cross-national relations; Soldiers with culturally negative orientations (e.g., racism) may impede success in foreign countries • Integrate non-cognitive measures into selection for positions with greater opportunities for interaction with host nationals and other cultures.
Initial Military Training Provide the foundation for each Soldier to clearly understand the role of cultural agility	<ul style="list-style-type: none"> • “Adapting to changing operational environments” is a core Warrior task; it can be reinforced from the onset and incorporated into Basic Combat Training • Enlistees are often pushed into an 	<ul style="list-style-type: none"> • Incorporate assessment for training evaluation • Assessment of officers can provide feedback for further individual development. 	<ul style="list-style-type: none"> • This is exceptionally powerful because it can be reinforced from the onset. The military has the capability to shift ideology through initial military training. Initially these changes in behavior can later develop into

<p>in his or her success.</p>	<p>environment of different (domestic) cultures. This may be an optimal time to start shaping behaviors (and attitudes) consistent with cross-cultural competence.</p> <ul style="list-style-type: none"> • Self-awareness and personal insight on cultural orientations and personal values (i.e., teach new Soldiers and officers about their own cultural values and personal characteristics) • Teach discovery techniques for learning about culture • Practice discovery techniques for learning about culture in the context of other training activities • Embed cultural elements in initial training tasks 		<p>changes in attitudes and values.</p> <ul style="list-style-type: none"> • It is important to remember that many of the new recruits have not been out of the US. This means that the concept of culture may still be theoretical. Training must meet the recruits at the starting point and help them understand that they are embedded in the American culture, how values may differ, etc.
<p>Education and Development Develop understanding of the role culture will play in mission success and begin to build self-efficacy for cultural agility.</p>	<ul style="list-style-type: none"> • Organize peer-to-peer developmental opportunities (e.g., with the 09Ls for junior enlisted; with international officers for officers attending Intermediate Level Education). • Have returning Soldiers provide their experiences in a facilitated way by using real case scenarios and a “what would you do?” approach • Practice techniques for cultural learning 	<ul style="list-style-type: none"> • Assessment can provide feedback for further development 	<ul style="list-style-type: none"> • Peers should be coached on their role as cultural mentor/advisor (do not assume that they understand cultural differences well enough to share them). • Developmental interactions should be available for those Soldiers who will have greater interactions while in-country. • Incorporate the 4 ways of seeing concept (perspective taking) used by the University of Foreign and Military Studies: how do members of a culture see themselves, how do we see them, how do they see us, how do we see ourselves.
<p>Pre-Deployment Framing Provide the foundation</p>	<ul style="list-style-type: none"> • Have highly-regarded senior military leaders explain and illustrate the role of cross-cultural competence in the 		<ul style="list-style-type: none"> • These practices will reinforce, at the onset, that cross-cultural competence is a critical aspect of being a Soldier

for each Soldier to clearly understand how cultural learning and agility will be critical for the success of the mission.	<ul style="list-style-type: none"> specific mission’s success Embed case studies, videos or other examples that will reinforce the need for cultural competence throughout other aspects of pre-deployment training 		<ul style="list-style-type: none"> If it is not prioritized as “mission critical” from the beginning, the learning throughout training will be sidelined
<p>Pre-Deployment Training Develop understanding of the basic language phrases and cultural issues that can help facilitate success.</p>	<ul style="list-style-type: none"> As rules of engagement are given prior to deployment, the emphasis on cultural agility can be highlighted (i.e., when to adapt, when to follow SOP, and when to compromise or integrate) Practice techniques for cultural learning (see pp. 26-28) Technology-based cultural simulations Country orientations and location-specific cultural training (with mission purpose in mind) Basic language training Live simulations (at Joint Readiness Training Center or National Training Center) Safe opportunities to practice the language (e.g., immersion events where only the foreign language is spoken) 	<ul style="list-style-type: none"> Incorporate assessment for training evaluation Assessment can provide indicators of unit-level training needs and readiness. 	
In-Country Training	<ul style="list-style-type: none"> Training on how to work with interpreters. Area guides and other written and technology-based cultural materials Peer-to-peer and leader-to-Soldier interactions Practice discovery techniques for cultural learning 		<ul style="list-style-type: none"> Emphasize how respect is demonstrated, how to recognize threat, and how locals perceive the Soldier, understand ground rules for conversations
In-Country Development	<ul style="list-style-type: none"> During relief-in-place where security risks are low, members of the relieving 		<ul style="list-style-type: none"> Build trust, gain credibility, and communicate effectively

	<p>unit are introduced to locals alongside the unit transitioning out. This is a safe opportunity for development to occur.</p> <ul style="list-style-type: none"> • Interactions with interpreters and locals for developmental purposes • Have functional interactions with locals as opportunities to observe culture and practice “junior anthropologist” skills and culturally-appropriate behaviors • Passively observe aspects of the culture (e.g., relations between men and women, formality) and consider how these aspects of the culture may affect the mission • Have social interactions with locals, if possible 		
Promotion	<ul style="list-style-type: none"> • Not only should cross-cultural training and development interventions be implemented, the resultant behaviors must be recognized, reinforced, and rewarded through promotions (e.g., such as in recognizing Transition Team and Provincial Reconstruction Team assignments as Key and Developmental for officer promotion). 		<ul style="list-style-type: none"> • This has a tactical benefit along with a benefit for the organizational culture on what is rewarded
Knowledge Transfer and Management	<ul style="list-style-type: none"> • Knowledge transfer must be encouraged, acknowledged, and valued, and management & sustainability systems need to be put in place. 		