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Cultural Training as Behavior Change

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Abstract

People working overseas require knowledge of the local culture, as well as competence in dealing with cross-cultural situations. Acquiring the necessary knowledge, skills, and abilities can be difficult, not just because there is much to learn but because differences between cultures can result in discomfort and act as an affective barrier to learning. Busy adults have limited time to learn, which exacerbates the problem. VCATs (Virtual Cultural Awareness Trainers) have proven to be highly effective at promoting cultural awareness, in spite of these challenges. This paper presents a theoretical framework for understanding how cultural learning takes place in VCATs, in terms of behavior change. Virtual role-play together with other learning activities appropriate for each stage in the learning process promote readiness to learn and behavior change. The resulting approach has been applied successfully in cultural awareness training courses for over eighty countries, with over 60,000 learners to date. A longitudinal evaluation with VCAT learners suggests that it has long-term effects on behavior in cross-cultural settings. The paper concludes with some recommendations for further improvements of the VCAT model, through ongoing adaptive training resulting in stronger and more sustained learning outcomes.
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1. Introduction

People preparing to work overseas in an unfamiliar culture have a lot to learn. They must learn to work effectively in cross-cultural situations. They need to become familiar with the norms, practices, and values of the new culture, so that they are comfortable behaving in accordance with them in encounters with local people. Moreover busy adults often have a limited amount of time to devote to cultural training. These constraints – so much to learn, so little time – pose challenges for the design of cultural training.

These challenges are made worse by the affective barriers that many learners encounter when they experience another culture. The experience of an unfamiliar culture, where norms of behavior are different from what one is accustomed to, naturally leads to discomfort [1]. It may require breaking old habits of behavior established in one's

own culture. Each learner's personal characteristics, such as their openness to new things and tolerance of ambiguous situations, can determine how they respond emotionally to cross-cultural encounters [2]. Negative emotions can act as affective barriers to learning, and can stand in the way of success in cross-cultural situations.

This paper describes the approach used in VCATs (Virtual Cultural Awareness Trainers) [3, 4] for addressing these problems. The approach was developed over successive iterations of VCAT development efforts, in which we have continued to improve on the instructional method. It views the problem as fundamentally one of *behavior change* – adapting one's behavior to be appropriate for encounters with people in the new culture. Insights from the literature on promoting behavior change, such as the transtheoretical model of behavior change [5], inform the selection and design of learning activities in VCATs. Virtual role-play simulations are a critical part of the approach, both to promote learning and to assess whether the behavior-change outcomes have been achieved. The VCAT approach has proven highly successful and has been used to provide cultural-awareness training for over eighty countries.

2. The problem of rapid cultural awareness training

Military trainees have busy training schedules, in which cultural awareness training must be squeezed in with other training activities. In the case of VCATs, the operational Combatant Commands that have asked for VCATs mandate required VCAT training to be completable in two to four hours. After the training has been completed there may be several months before the trainees arrive in the foreign country and are able to apply the cultural skills that they have learned. It is a challenge to design training that helps learners acquire cross-cultural skills this quickly, and retain them until a later time when they use them on the job.

Culture is a very broad topic, potentially comprising all knowledge, habits, and capabilities acquired by human beings as members of a society [6]. This can make it hard for learners to know where to focus their study of culture. One can study facts about a culture at length, say by reading guidebooks, and still come away without the necessary practical skills to handle specific cross-cultural situations. To promote effective cross-cultural skills in a very short amount of time we must identify the specific training end state that the trainees require, and help them overcome gaps to achieve that end state. In VCATs the end state is the ability to handle the cross-cultural encounters that the trainees are likely to encounter as they carry out their planned mission overseas. We therefore design training modules that center on the application of cultural skills in particular missions, such as meeting with local leaders, countering transnational organized crime, or humanitarian assistance and disaster relief. Each trainee receives a personalized course of instruction based upon the specific missions that they are training for. They are free to review other learning materials outside of the personalized required set as time permits.

Fig. 1. VCATs prepare trainees for cross-cultural interactions they are likely to encounter.

The goal is to prepare trainees so that when they are in a real cross-cultural encounter, such as the Chinese business dinner shown in Fig. 1, they are comfortable with the situation and know what to do. They must know

when to sit down, to show appreciation for the dishes, and to give and receive toasts in accordance with cultural expectations. This requires not just knowledge of cultural practices but the ability to apply those practices when the situation calls for them. It requires thinking on your feet, and adapting one's behavior in ways that might be unusual in one's own culture.

Kirkpatrick identified four levels for evaluating training programs: reaction, learning, behavior, and results [7]. For cross-cultural training programs such as VCAT the behavior level is particularly important. Training must be designed to have a lasting effect on behavior, since trainees may deploy overseas months after receiving training. It must achieve results for the organizations, the operational Combatant Commands, so that they continue to support the VCAT program and mandate VCAT training for their personnel.

Having identified the end state, we must focus on the gaps in the learners' knowledge, skills, and abilities, and how to overcome them to reach the end state. The Defense Regional and Cultural Capabilities Assessment Working Group (RACCA WG) identified 40 learning statements pertaining to cross-cultural competence [2], all of which are potentially relevant to overseas deployments. In the interest of time we must focus on those aspects of knowledge, skill, and ability that are most relevant to the tasks and missions that learners are likely to undertake. In practice we provide learners with a general introduction to culture and then illustrate general cross-cultural learning objectives in specific situations. For example we can illustrate the general cultural concept of reciprocity in the context of a specific cultural practice such as exchanging toasts at business banquets. Once learners become aware of these general concepts they may notice other situations where these concepts come into play,as they become familiar with the new culture.

Some of the abilities identified by the RACCA WG as conducive to cross-cultural competence, such as willingness to engage in cross-cultural encounters, tolerance of ambiguous situations, and ability to suspend judgment are deep-seated attitudes and personal characteristics. They may be difficult for a given learner to change, but they can be learned and it may be possible to influence them to some extent in a cultural awareness course. At the very least the course design must take into account the broad variance in these abilities across the learner population taking the course.

One of the biggest gaps that many learners face is lack of awareness of differences between cultures, and lack of acceptance of those differences. As Bennett notes in his Developmental Model of Intercultural Sensitivity [8], people vary greatly in their sensitivity to intercultural differences, from denying that differences exist to fully accepting them and integrating them into their performance. Among military personnel the denial of cultural differences can result in an attitude that "the only culture I need to know comes out of the barrel of my gun."[1] Lack of intercultural sensitivity can affect not just how people apply what they learn from a cultural awareness course, but whether they are engaged and committed to learn in the first place. We must assume in courses like VCATs that learners come to the course with a variety of different degrees of intercultural sensitivity and predispositions to cultural learning, and so we must plan accordingly.

3. Promoting behavior change

Given the above constraints, a cultural awareness course that simply presents cultural information is unlikely to be very successful. It is unlikely to produce lasting effects on behavior or organizational results, particularly among learners who do not already have intercultural sensitivity and positive attitudes toward cultural learning. Instead, we recognize that learning intercultural competence is a process. It is a process that results in the adoption of new behaviors and attitudes conducive to cross-cultural encounters, possibly overcoming old behaviors and attitudes that stand in the way. This ultimately it is a process of behavior change. A course such as VCAT should be sensitive to where learners are in this process, and help them progress through the process to achieve maximum results.

Our work is influenced by models of behavior change in the health professions, in particular the transtheoretical model of behavior change [5, 9]. The transtheoretical model was designed for promoting healthy behaviors such as dieting or quitting smoking, not job training. However Zimmerman et al. [9] claim that it applies to any desirable

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[1] An Army First Sergeant at the National Training Center, personal communication.

behavior. There are many aspects of it that are relevant to training problems where the desired outcome is behavior change and where negative attitudes and affective and motivational barriers can stand in the way of that behavior change. Cultural awareness training, even military mission-oriented cultural awareness training, falls into this category. Although military personnel are motivated to carry out their missions successfully, they still may be skeptical of the importance of cultural competence in accomplishing their missions, may be uncomfortable in cross-cultural situations, may lack the self-efficacy to apply cross-cultural skills successfully, or may be prone to lapse into culturally inappropriate modes of behavior in cross-cultural settings.

According to the transtheoretical model a person progresses through a series of stages toward behavior change, as follows.

- **Pre-contemplation:** The individual does not even consider changing behavior. She may feel that her current behavior is perfectly adequate, and sees no reason to change. She may not believe that she is capable of performing the new behavior.
- **Contemplation:** The individual is considering changing, but is ambivalent about it. He weighs the pros and cons of changing, and may feel that the cons outweigh the pros. He may intend to take action at some point in the future, but is not sure how.
- **Preparation:** The individual prepares to make a specific change in the near term. She may already be experimenting with incremental changes.
- **Action:** The individual has committed and undertaken behavior change for a short period.
- **Maintenance:** The individual attempts to continue the new behavior over time. He may sustain it, or he may occasionally relapse and revert to old behaviors. Or he get discouraged and give up entirely, returning to the pre-contemplation stage.

If health professionals know what stage a patient is in they can tailor their intervention accordingly, increasing the likelihood that that change will be achieved and sustained. Interventions that are not tailored in this way may fail for some individuals, and repeating failed interventions such as educating the patient over and over about the risks can cause frustration and discouragement.

Trainees in cultural awareness courses such as VCATs can also be regarded as being in distinct stages of behavior adoption, either for specific types of cultural competencies or for the topic in general. Some trainees, particularly those who are at a low stage of intercultural sensitivity on the Bennett scale and are taking the course only because it is required, may be at the pre-contemplation stage for all skills taught in the course. They must be persuaded to shift to a more advanced stage otherwise the course is unlikely to have any lasting effect on their performance. Some trainees may contemplate applying the skills that they are learning, but are afraid they will not perform well and will make a fool of themselves. This is a general tendency in cross-cultural encounters, which are unfamiliar and therefore lead to awkwardness and discomfort [1]. Some people can be particularly reluctant to attempt to communicate in a foreign language that they have only a limited mastery of. Such learners must be persuaded that the pros outweigh the cons, e.g., that it's worth a try, it will make a positive impression on their counterparts, and it's easier than they may think. For learners who are at the preparation stage and are ready to try learning cross-cultural skills the challenge is to help them build competence and self-confidence so that they are ready to take action to learn and then apply what they learned in real cross-cultural encounters.

This view of cross-cultural learning as behavior change has significant implications for course design. VCAT courses are designed to affect not just learner knowledge and skill but also learner motivation. They motivate learners to advance through stages of behavior change during the course, and train them in such a way that they are prepared to apply what they learned after they complete the course.

4. Implications for the design of VCATs

The following examples illustrate how learning activities and presentations in VCATs support learners at various stages of readiness to adopt new cross-cultural behaviors, and motivate them to progress toward more advanced stages.

Fig. 2 (left) shows the VCAT Virtual Coach introducing the purpose of the course and explaining why the course topic matters. The Virtual Coach is present throughout the course explaining, motivating, and providing feedback. Fig. 2 (right) shows a video of South American and US military personnel training together. Presentations such as these can help learners, who may never have undergone cultural training before, understand the importance of training and how it might help them to be more effective during the mission. The videos serve to model what successful cross-cultural interaction is like, and show what the trainees can aspire to.
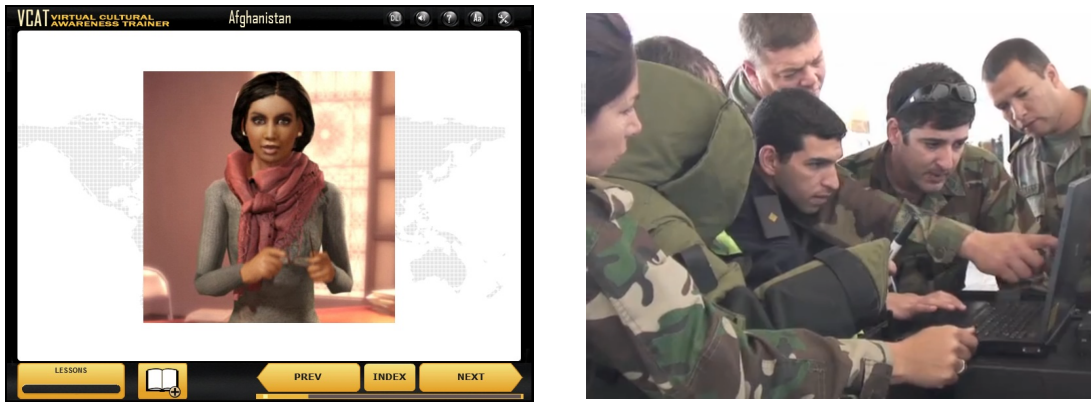

Fig. 2. Left: The Virtual Coach explains the purpose of the course and why it matters. Right: a frame from a video showing South American and US military personnel training together.

Video interviews of service members who have worked in the country in question, and former residents there, help motivate learners at the contemplation phase in their training. Fig. 3 shows two such examples. The service members are people that the learners can relate to and identify with, and so provide a model for what the learners can aspire to. The evocative stories they tell help learners to visualize how the skills they are developing will be useful during deployment overseas. The videos of the former residents help learners to understand the perspective of people from the other culture about cross-cultural interactions. This helps to break down any initial apprehension or sense of embarrassment that learners might have, and is an important initial step toward developing perspective-taking skills. For example in the video in the right of Fig. 3 the former resident is explaining how even attempting to speak the local language sends a message that you respect the other person's culture. VCATs also incorporate realistic animated characters throughout, but these videos of real people offering their perspectives are invaluable.
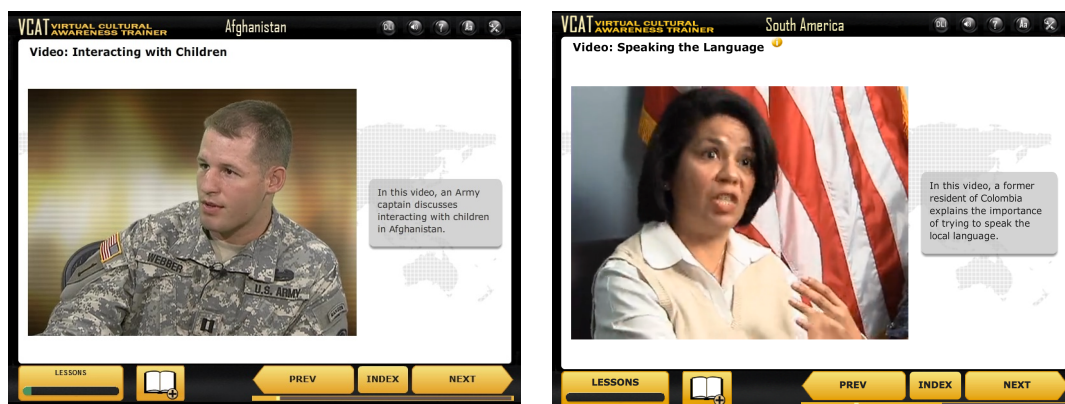

Fig. 3. Left: A video first-person perspective from a military service member. Right: a video perspective from a former resident, explaining why it is important to at least try speaking the local language.

Instructional pages introduce learners to the cultural knowledge and skills covered in the course. As learners progress they are given opportunities to practice individual cultural skills in virtual role-play with virtual characters. This is helpful for learners at the preparation stage who are just getting started applying their cultural skills. Fig. 4 shows two such examples. Learners receive feedback from the from the character they are interacting with (signified in the example on the right by the green plus over the head of the character), as well as from the Virtual Coach. The Virtual Coach provides feedback and further explanation as to why the virtual character responded as he or she did. This can be important when the learner is just getting started and has a poor understanding of behaviors are appropriate in the target culture, and so is surprised when the other person reacts negatively to what they say or do.

Fig. 4. Two examples of short practice interactions with virtual characters.

When the learner is ready he can undertake extended virtual role-play simulations of the situations that they are likely to encounter as part of his overseas mission. There are two types of such simulations in VCATs: practice scenarios and test scenarios, as shown in Fig. 5. In practice scenarios (Fig. 5 left) the Virtual Coach is available throughout to evaluate the learner's actions and provide feedback. The trainees can try different tactics and see their consequences, in a safe simulation environment. In test scenarios the Virtual Coach support is removed and the learner must successfully complete the scenario on their own. At the end of the scenario the trainee receives a detailed report of which cross-cultural skills the trainee performed well, and where further is improvement is needed. The trainees can then practice further and try the assessment again, until they succeed.

Fig. 5. Extended virtual role-play simulations, for practice (left) and assessment (right).

By this point the learner has hopefully progressed to the action stage – is able to take appropriate actions in simulation, and in real life as well. If they continue to maintain these skills until deployment, then when the learners encounter similar situations in real life they will be able to negotiate them with confidence, knowing that they have mastered similar situations in simulation. For more details on the use of virtual role-play in Alelo courses, see [10].

5. Experience and future directions

VCATs have now been developed for over 80 countries around the world, for all regions of operation except for Europe. As each Combatant Command has adopted VCAT training, others have followed suit. Over 60,000 personnel to date have undergone VCAT training.

To assess whether the approach is effective in promoting behavior change, a small study was conducted with trainees of VCAT trainees deploying to Afghanistan and South America. A total of 102 subjects participated. The trainees completed a four-hour VCAT course, and then completed a 5-point Likert-scale survey to assess their reactions to the course and how much they learned from it. We followed up two months later with another survey, both of the trainees and the trainees' supervisors. By this time many of these trainees had deployed overseas, making it possible for the trainees and their supervisors to assess the impact of the VCAT training on the trainees' cross-cultural skills in country. The study confirmed that the trainees had a positive reaction toward the course (4.1 out of a possible 5) and learned from the course (3.9 out of a possible 5). 21 subjects completed the follow-on survey, and indicated that the VCAT training had a lasting positive effect on their behavior (3.5 out of 5). By this time half of the trainees had been deployed overseas, and the ones who deployed overseas reported a greater benefit from VCAT training (3.9 out of 5). Nine supervisors participated in the study, and their impressions were also positive (3.5 out of 5). Considering that the study took place months after a four-hour training course, the results are encouraging.

Looking ahead, there are ways to improve on the utilization of VCATs to achieve higher levels of cross-cultural competence and behavior change. The first step is to encourage use of VCATs on mobile devices as an ongoing resource. VCATs are already designed for use on mobile devices. Courses are organized in microlearning modules, making it easy for learners to complete the course over multiple sessions instead of all in one sitting. VCAT trainees should be encouraged to train in this manner. They can also continue to practice the VCAT virtual role-play simulations after course completion and prior to deployment, to maintain peak levels of performance. Learning science research provides multiple important reasons for doing this. It is well known that spaced practice achieves more long-lasting learning results than massed practice. This effect applies to language learning [11], and so can be expected to apply to cultural learning as well. The transtheoretical model suggests that learners at early stages in the behavior change process are likely to achieve better performance if they undertake training in multiple stages, so they have an opportunity to progress through the stages. Once they get to the action stage they are likely to engage fully in the training. Finally as learners advance in intercultural sensitivity they will have a better understanding of the importance of cultural training and derive greater benefit from it.

Trainees would gain greater benefit from virtual role-play simulations if there were greater variability in the behavior of the virtual role-players. In current VCAT scenarios the behavior of the virtual role-players is predictable, which may tempt learners to memorize a fixed sequence to get through the test scenario and complete the course. If instead the virtual role-players exhibit nondeterministic behavior and throw occasional curve balls at the trainee, they would better prepare trainees for the unexpected in real-life cross-cultural encounters.

As noted at the beginning of this article, trainees preparing for cross-cultural encounters have a lot of learn. Because VCAT courses are so compressed, they provide trainees with just the basics of cross-cultural competence. If trainees utilize VCATs as an ongoing resource they are more likely to broaden and deepen their understanding of cross-cultural competence. Each new virtual role-play simulation, although situated in a specific situation, can reinforce general cross-cultural skills.

Nevertheless, military trainees will continue to be under time pressure to perform training in a limited amount of time. To make best use of the time that trainees have available, an adaptive approach should be used that tailors the cultural training to the characteristics of the learner. VCAT already provides personalized courses of instruction based upon the trainee's planned mission, however there is much more that can be done to personalize training according to the profile of each trainee. Alelo has been developing an adaptive approach for language learning and

sustainment [12], in which training experiences are tailored based upon each trainee's competency profile. This approach can be extended to cultural training by including cultural competencies as well as language competencies. Integration of the transtheoretical model can lead to further tailoring based upon each trainee's motivational profile and willingness to develop and apply intercultural skills.

Acknowledgements

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