ARC Observation Guide Validation Studies for 1st SFC(A)

Presenters: Louise Rasmussen, Ph.D. & Ian Edgerly, Ph.D.
Co-Team Members: Jasmine Duran, M.S., Winston Sieck, Ph.D.

Global Cognition

ILR Testing & Culture Committees
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The 1st Special Forces Command (Airborne) (1st SFC (A)) provides LREC sustainment to ensure the readiness of Special Operations Forces Soldiers and units to support missions worldwide.

1st SFC needs REC assessment capability.

Formative assessment:

- track individual development
- offer feedback to encourage growth
- carried out by staff

Provide explanatory feedback

Summative assessment:

- evaluate and reward efforts to advance and maintain readiness
- determine program effectiveness and returns on investment
- carried out by external entity to obtain independent metrics

Program evaluation

Adaptive Readiness for Culture (ARC) describes competencies that support DoD objectives.

Diplomatic Mindset	
1	Maintains a Mission Orientation
2	Understands Self in Cultural Context
3	Manages Attitudes Towards Culture
Cultural Reasoning	
7	Copes with Cultural Surprises
8	Develops Cultural Explanations of Behavior
9	Takes Perspective of Others in Intercultural Situations
Cultural Learning	
4	Self-Directs Own Cultural Learning
5	Develops Reliable Information Sources
6	Reflects and Seeks Feedback on Intercultural Encounters
Intercultural Interaction	
10	Acts Under Cultural Uncertainty
11	Plans Inter-Cultural Communication
12	Engages in Disciplined Self-Presentation

DoD Instruction 5160.70

Management of the Defense Language, Regional Expertise, and Culture (LREC) Program

Critical incident study pointed to the following high priority competencies for measurement:

ARSOF high priority ARC competencies:

- Maintains a mission orientation
- Plans intercultural communication
- Takes perspective of others in intercultural situations
- Develops cultural explanations for behavior
- Self-Directs own cultural learning

ARC was developed based on critical incident interview studies. Can it be used reliably for observation purposes?

Preliminary questions:

- Ascertain the content fit of the guide with established ARSOF schemes and exercise demands related to human interactions (content validity).
- Determine the relationships between behavioral items from the observation guide and ARC indicators developed in critical incident interview studies (construct validity).
- Determine reliability of the guide, when employed by scientists and soldiers in field observation exercises.

We reviewed ARSOF Skill Level Tasks to determine content fit.

- Identified overlaps with the five high-priority ARC competencies.
- 15 ARSOF SLTs included activities in which soldiers have opportunity to apply one or more of the five high priority ARC competencies.
- We found a high level of content overlap between ARC and ARSOF SLTs.

  - Increases confidence that assessing ARC competencies will evaluate skills and abilities that are critical for ARSOF mission success.
  - Suggests that implementing an ARC feedback mechanism could supplement and increase the learning benefits of the training or readiness exercises in which it is used.

We used a retranslation process to create a tailored ARC observation guide.

- 1st SFC REC instructors conducted ARC observations within ARSOF exercises.
- We:
  - elicited behaviors from them that “when they occurred, caused them to judge a soldier or team as being higher or lower" in a particular competency.
  - edited behaviors for clarity, eliminated redundancies, and established content overlap with ARC through backtranslation.
- A total of 46 behavioral indicators remained.

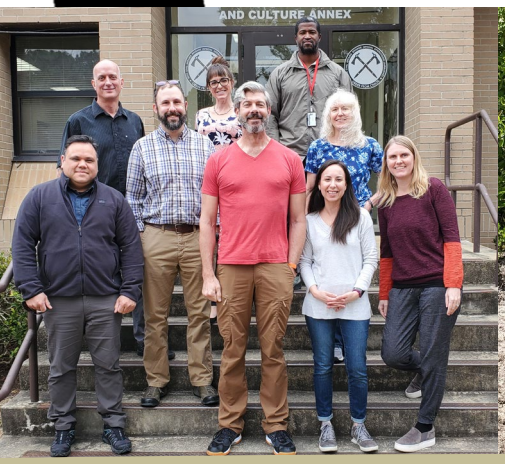
Benefits – high construct validity + behaviors are easier to observe which should boost interrater reliability.

We used a behavior checklist format consistent with behavioral rating scales used in the workplace.

- Indicators direct attention to positive and negative evidence for a competency.
- Allows observers to record their observations using a 0-2 scale:
  - 0 = behavior did not occur,
  - 1 = behavior was exhibited once
  - 2 = behavior occurred more than once.
- Notes page
- Summary evaluation, rating performance on a 5-point scale from Less Skilled to Master.

MISSION ORIENTED RELATIONSHIP BUILDING	
1 2 Discusses relationship goals in advance of engagement.	1 2 Focuses on completing tasks to the expense of building relationships.
1 2 Engages strategically to further mission objectives.	1 2 Judges who and how to enage based on character traits and value judgments.
1 2 Recognizes and builds upon relationship-building gestures initiated by partners or locals.	1 2 Misses opportunities to build relationships.

We conducted field observation studies in ARSOF Exercises to determine the reliability of an ARC observation guide, when used by scientists and soldiers.



PILOT 1: Observations were made during a PSYOP Exercise.

Observers

- Included 3 Civil Affairs Senior Non-Commissioned Officers (NCOs) and three 1st SFC REC instructors.
- Received 2-day training on ARC and the observation guide.

Exercise

- Five PSYOP teams completed a SOUTHCOM PN and a PAO engagement resulting in 10 observation opportunities.
- Observers were divided into two groups—each followed the PN or PAO engagement.
- Observers recorded their observations on the ARC observation checklist, completed summary evaluation, and provided feedback.

Interrater agreement among observers on using the behavioral indicators was acceptable.

- Interrater agreement was 65% overall.
  - 58% for the PAO and 72% for the PN lanes respectively.

Goal should be 75% - but 65% is acceptable for a pilot application.

(Graham, Milanowski, and Miller, 2012)

- On average, correlation was .91 between observers' overall judgments of performance.

Items were used with different frequencies and more and less reliably.

- The maximum number of times an item was used was 41 times, min was 0.
- Items with moderate use and higher agreement are the best items to retain as they are more likely to discriminate performance reliably.

Indicator	Competency	Description	Agreement	Times Used
i1	Mission	Discusses relationship goals in advance of engagement.	0.61	16
i10	Mission	Engages in a transactional or scripted manner.	0.64	19
i11	Mission	Signals that partner or local motivation to work with the U.S. is a given.	0.68	21
i9	Mission	Misses opportunities to build relationships.	0.62	23

Some items were highly correlated indicating that they were likely or unlikely to be checked together.

- Positively correlated items may be overlapping in content - opportunity to combine or eliminate to reduce redundancy.

MISSION ORIENTED RELATIONSHIP BUILDING		
9. Misses opportunities to build relationships.	**11.** Signals that partner or local motivation to work with the U.S. is a given.	**.92**

- Negatively correlated items give a sense of the ability of items in the guide to discriminate aspects of performance.

MISSION ORIENTED RELATIONSHIP BUILDING		
2. Engages strategically to further mission objectives.	**10.** Engages in a transactional or scripted manner.	**-.71**

Moderate reliability provided a solid basis to support ongoing development and testing.

Examining ways items in the guide were used provided insights for revisions to improve the reliability and usability of the guide.

Possible revisions:

- Reduce the number of indicators.
- Modify training.

- Reword indicator items to be more observable and distinguishable.
- Increase mapping between items and observation opportunities.

Make sure item use-pattern isn't unique to the specific exercise observed.

Optimize observation guide before investing in training.

There are different opportunities to observe cultural competence in exercises.

Intercultural Communication Planning

Engages in Disciplined Self-Presentation

Reflects and Seeks Feedback on Intercultural Encounters

Pre-Engagement Planning

Engagement

Post-Engagement AAR

We revised the observation guide for subsequent pilot studies.

Pilot 1 Observation Guide

Page 1: 46 Items

Engagement

Pilots 2 & 3 Observation Guide

Page 1: 24 Items

Engagement

Page 2: 27 Items

Pre-Planning and AAR

PILOTS 2 & 3: Observations were made during a PSYOP and a CA Exercise.

Observers

- Included 13 PSYOP and CA Senior Non-Commissioned Officers (NCOs) and one 1st SFC REC instructor.
- Received 5hr training on ARC and the observation guide.

Exercise

- Six PSYOP teams completed five AFRICOM engagements.
  - NCOs performed many functions. Three performed ARC observations, resulting in 11 paired observations.
  - Observers recorded their observations on the ARC observation checklist, completed summary evaluation, and provided feedback.
- CA exercise was too dynamic to conduct paired observations.

Interrater agreement differed by experience level.

- Interrater agreement was 63% overall.
- Interrater agreement differed by observer experience level.
  - 71% for the three experienced observers
  - 54% for the three novice observers
- Only two items were significantly correlated indicating low redundancy.

Units reacted positively to ARC feedback.

- They noted that the guide:
  - provides a framework for giving feedback on socio-cultural aspects of engagements—this is not in current METL feedback.
  - supports giving process rather than outcomes-focused feedback.
  - can drive scenario development.
- The 1st SFC REC team is receiving requests to incorporate ARC feedback in exercises.

Next phase—study effects of observer training.

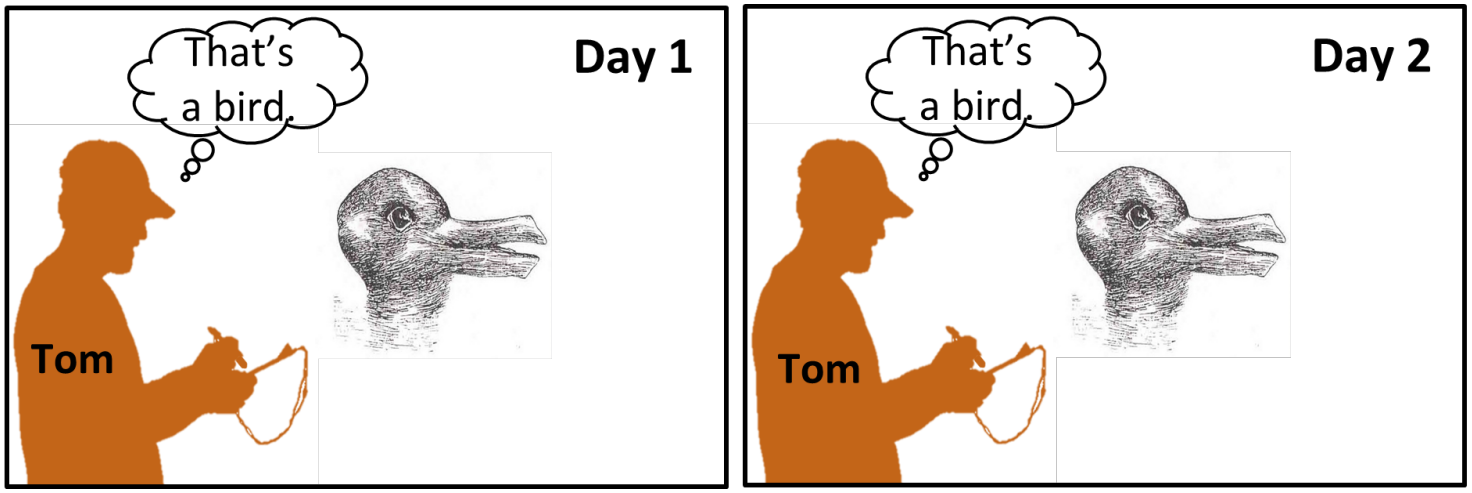
Use of videos in training will:

- Systematically familiarize observers with using a range of ARC indicators.
- Give concrete meaning to the descriptions in an observation instrument.
- Provide practice that transfers more readily to conducting field observations.
- Provide a better basis for anchoring summary evaluations of mastery levels.

Determine certification requirements and standards.

Study to identify:

- The standards observers should meet and sustain.
- Amount and kind of training needed for observers to make observations consistently – with themselves and others.



Questions

Dr. Louise Rasmussen
Email: louise@globalcognition.org
Web: www.globalcognition.org

Dr. Ian Edgerly
Email: ian.edgerly1.ctr@socom.mil