# Using Needs Assessment to Align Learning and Assessment with the Capability Needed to Perform a Specific Mission

## Abstract
This presentation, which was delivered to the Interagency Language Roundtable (ILR) Testing Committee on 21 MAR 2014, described how a rigorous needs assessment process can provide a foundation for developing mission-focused, capability-based language curricula and assessments. The purpose of a training needs assessment is to guide the design of activities to close “gaps” in underlying knowledge, skills, abilities or competencies related to performance deficiencies. The presenter used models of performance (i.e., Borman, 1991; Campbell, 1999) and theories of human behavior to demonstrate that performance is determined by individual and environmental factors. The presenter described how conducting a needs assessment that fits the purpose and context, can produce information at the level of detailed needed to construct language curricula and assessments.

## Subject Terms
Needs assessment interagency language roundtable ILR testing assessment capability mission-focused

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Using Needs Assessment to Align Learning and Assessment with the Capability Needed to Perform a Specific Mission

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Research and Publications


USSOCOM NA Projects

• Organizational Level Needs Assessments
  – 2004 Language Needs Assessment
  – 2009 Language, Regional Expertise, and Culture Needs Assessment

• Training Needs Assessments
  – Naval Special Warfare (2010)
  – Air Force Special Operations Command (2012)
  – Special Forces (2013)
  – Marine Corps Forces Special Operations Command (2013)
Focus: Mission Requirements

- Assignment
- Testing
- Training
- Incentives

Mission Requirements
Capability

• Organizations must ensure they have capability to perform the activities and tasks that support their missions and objectives.
  – How do organizations identify and define these capability requirements?
  – How do organizations ensure they have this needed capability?
  – How do organizations identify and closer their capability gaps?

• Work analysis techniques, such as training needs assessment, help to align organizational processes and capability with organizational objectives. The more alignment between learning, testing, policy, capability, and performance created throughout the system, the more likely individual, team, and organizational outcomes will be achieved (Surface, 2012).
Organizational Needs Assessment

- A process which identifies gaps between current and desired states and makes recommendations about how these gaps can be closed in order to align organizational capabilities with mission and organizational requirements (Surface, 2012)

Current State
- Identify current state of language- and culture-related skills

Desired State
- Identify desired state of language- and culture-related skills

Identify Gaps
- Identify any gaps between current and desired states and possible reasons why the gaps exists

Close Gaps
- Recommend how the gaps can be minimized
There is a GAP

Current State  

GAP  

Desired State

Closing the Gap

Rely on Non-Organic Capability: Outsource

Develop Organic Capability: Select for Needed Capability 
Train Existing Personnel

Job aids/technology
Change job or mission
Combination Approach
Closing the GAP

Current State

GAP

Desired State

Closing the Gap

Develop Organic Capability:
Train Existing Personnel and certify capability
“...I don't need to be able to send a letter at the post office or ask how to open a savings account at a bank. I need to be able to say ambush, grenade, fire your weapon, align your sights properly, etc...”

-Leader of a Deployed SO Unit

“A lot of those military terms basically you can learn just as easily as anything else. So maybe instead of ‘see Spot run’ you could have ‘see Pedro dodge bullets’ or something.”

-NSW Interviewee
Mission-Relevant Language Training

• Surveys, focus groups, and interviews with SOF personnel identified the need for mission-relevant training and assessment.

“The instructors are told to teach for the test the Soldiers will take, so the Soldier knows how to ask for a blue dress but cannot teach rifle marksmanship.”

-5th SFG Operator

• How do we make training mission-relevant?
  – Needs Assessment: What does the mission require?
  – Align learning activities and assessment with mission requirements
  – “Wash back” effect of assessment and assessment policy
Training Needs Assessment (TNA)

• A process which provides a mechanism for aligning organizational objectives and capability through specifying focused, relevant training requirements and objectives which drive training design and measurement (Salas & Cannon-Bowers, 2001; Surface, 2012)

• Needs Assessment to create mission/job-related test specifications is very similar; both require specific information about desired performance
Training Needs Assessment (TNA)

• **Definition:**
  - Systematic process
  - Applies work analysis techniques and procedures
  - Identifies and specifies training requirements that have been linked to deficiencies in individual, team, or organizational performance
  - Develop learning objectives to address deficiencies

• **Purpose:**
  - Guide design (or selection), delivery and evaluation of learning activities to close the “gaps” in underlying KSAOs or competencies related to deficiencies in the performance of critical tasks in context
Training Needs Assessment (TNA)

**TNA Value:**

- Mechanism for aligning organizational capability with performance requirements to meet organizational objectives
- Specifies focused, relevant training/assessment requirements and objectives which drive design, delivery and measurement
- Facilitates transfer of learning to the work environment
- Increases efficiency and effectiveness of learning enterprise
- Increases organizational effectiveness (NZ study)

However, unfortunately, just doing a “needs assessment” is not enough; the needs assessment must fit the purpose and context, produce useful information at an appropriate level of detail, and be used.
NA as Part of a Systematic Approach

Developing Mission-focused LREC Capability

This model was originally presented at the 2013 United States Special Operations Command (USSOCOM) Command Language Program Manager (CLPM) Advanced Competencies Course in a presentation titled, *The Language Needs Assessment Process and Resulting Products*.
Performance

- “Performance is not the outcome or the consequence of behavior; it is the behavior itself” (Campbell et al, 1993).
- Campbell (1999): [Work, job, mission] “performance is defined as behavior or action that is relevant for the organization’s goals and that can be scaled (measured) in terms of the level of proficiency (or contribution to goals) that is represented by a particular action or set of actions.”
- Performance happens in context and is defined in part by the context.
- Lewin: $B=f[I,E]$ so $P=f[I,E]$

• Behavior (action), performance (action that contributes to organizational goals) and effectiveness (outcome) (Borman, 1991).
P = f[Individual, E]

Performance models have performance determinants...

- Campbell’s Determinants: DK, PK/S, M
- Knowing facts, knowing how, practiced acts, and choice behaviors
- Individual differences
- Determinants are not performance but performance is a “joint function” of individual difference on DK, PK/S, M
- Determinants can be in general and specific domains
- Assessment and learning can be determinant deficient
- KSAO analysis: KSAOs must be relevant and tied to performance
\[ P = f[l, \text{Environment}] \]

- All behavior happens in context
- Johns (2006)
  - Discrete (Physical, Task, Social)
  - Omnibus
  - Context changes relationships/requirements
- Each activity, task or incident happens in a ‘situation’
- Situation/contextual characteristics influence task and activities and KSAO requirements
- Recognize cues for performance
- Situation strength, KSAO relevance and activation
Aligning with Job/Mission Requirements

This model was originally presented at the 2013 United States Special Operations Command (USSOCOM) Command Language Program Manager (CLPM) Advanced Competencies Course in a presentation titled, *The Language Needs Assessment Process and Resulting Products*. 

1. **Step 1**: Identify the job/mission language/culture needs via Needs Assessment
2. **Step 2**: Translate identified needs to Learning & Assessment Objectives
3. **Step 3**: Create...
   - Curriculum Plan
   - Assessment Plan

4. **Step 4A**: Develop Job- & Mission-relevant Curriculum and Materials from LOs & Curriculum Plan; Instructor Training; Piloting
5. **Step 5**: Implementation; Train/Certify
6. **Step 6**: Evaluation & Revision
   - Process improvement for training and assessing
USSOCOM LREC Process

**Step 1**
- Mission Task Analysis (MTA)
- Knowledge, Skills, and Abilities (KSA) Analysis
- Validation

**Step 2**
- Learning Objectives
- Assessment Objectives

**Step 3**
- Scope and Sequence
- Program Review
- Technology Review

**Step 4**
- Curriculum Development OR Modification
- Assessment Development
Step 1: MTA and KSA Analysis

1. Identify Mission Tasks
2. Recruit Operational SMEs
3. Gather ratings from Operational SMEs related to mission tasks
4. Select LREC Experts and Operational SMEs
5. LREC Experts meet with Operational SMEs to determine KSAs for LREC
6. Eliminate tasks that do not require LREC to perform
7. Validate MTA and KSA Results
Step 2: Develop Objectives

Mission Task Analysis

Knowledge, Skills, and Abilities Analysis

Learning Objective Structure

Learning Objectives
Steps 4, 5, and 6

Step 4: Develop Curriculum/Assessment
Step 5: Implementation
Step 6: Evaluation and Revision

Step 4: Modify Existing Curriculum/Assessment
Step 5: Implementation
Step 6: Evaluation and Revision
Typical Learning Objectives

8 Identify family relationships
   ELO: Identify family members
   ELO: Talk about your family
   ELO: Ask about other family members
   ELO: Talk about family events
   ELO: Identify family relationships in the TR

9 Express quantities up to 20
   ELO: Count from 0 to 20
   ELO: Number the objects in the classroom
   ELO: Count currency
   ELO: Identify your license plate

11 Express cardinal numbers
   ELO: Provide your home address
   ELO: Provide the age of your family members
   ELO: Request the price of merchandise
   ELO: Buy merchandise
Typical Learning Objectives (cont.)

33. Engage Targets with an M-4
- ELO: Zero an M-4
- ELO: Load an M-4
- ELO: Unload an M-4
- ELO: Maintain an M-4
- ELO: Perform Function Check on an M4
- ELO: Correct Malfunction on an M-4

34. Engage Targets with an M-9
- ELO: Load an M-9
- ELO: Unload an M-9
- ELO: Maintain an M-9
- ELO: Correct Malfunction on an M-9

35. Detainees
- ELO: Search an Individual
- ELO: Search a Detainee
- ELO: Guard Detainees
- ELO: Search a vehicle in a tactical environment
Example NSW Learning Objective

TAG: CB-02-02-145-13-01-01-02-02

The NSW SEAL/SWCC personnel will **give commands** in order to **train others to accomplish small arms qualifications** as part of **NSW Range Safety Operations** at the **tactical level of conflict** and **within a level 1 socio-cultural context** and to an **emerging** standard of performance in relation to the targeted proficiency level **ILR level 1** as measured by appropriate formative and summative assessments.
Example: Civil Affairs LNA (2001)

- Each task was reviewed and a proficiency level for each language modality was assigned.

- Result: Absolute minimum profile in L/S/R/W is 2+/2+/2/1+. The safest profile is 3/3/2/1+.
# How we assign ILR levels to tasks

**NSW Tactical Communications Tasks, Train Others Context, Tactical LOC**

<table>
<thead>
<tr>
<th>Tactical Communications Tasks</th>
<th>Interpersonal Speaking Proficiency</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>ILR 1</td>
</tr>
<tr>
<td>Conduct full spectrum non-verbal communication (e.g., loss of comms, hand/arm signals, pop flares, signal devices)</td>
<td>Limited</td>
</tr>
<tr>
<td>Operate communication systems</td>
<td>Unsustained</td>
</tr>
<tr>
<td>Maintain communication systems</td>
<td>Unsustained</td>
</tr>
<tr>
<td>Supervise/manage partner nation communication systems</td>
<td>Unsustained</td>
</tr>
</tbody>
</table>

**Note.** *Unsustained* = Random and often incomplete performance, *Limited* = Performance of the task in a limited context and manner, *Full* = Can perform the task minimally as described for NSW operations. *Full/Limited* is used when the requirements of the task are so high that even some speakers above ILR Level 2 may not be able to perform them fully.
Questions & Discussion