# Evidence-Centered Design as a Foundation for ALD Development

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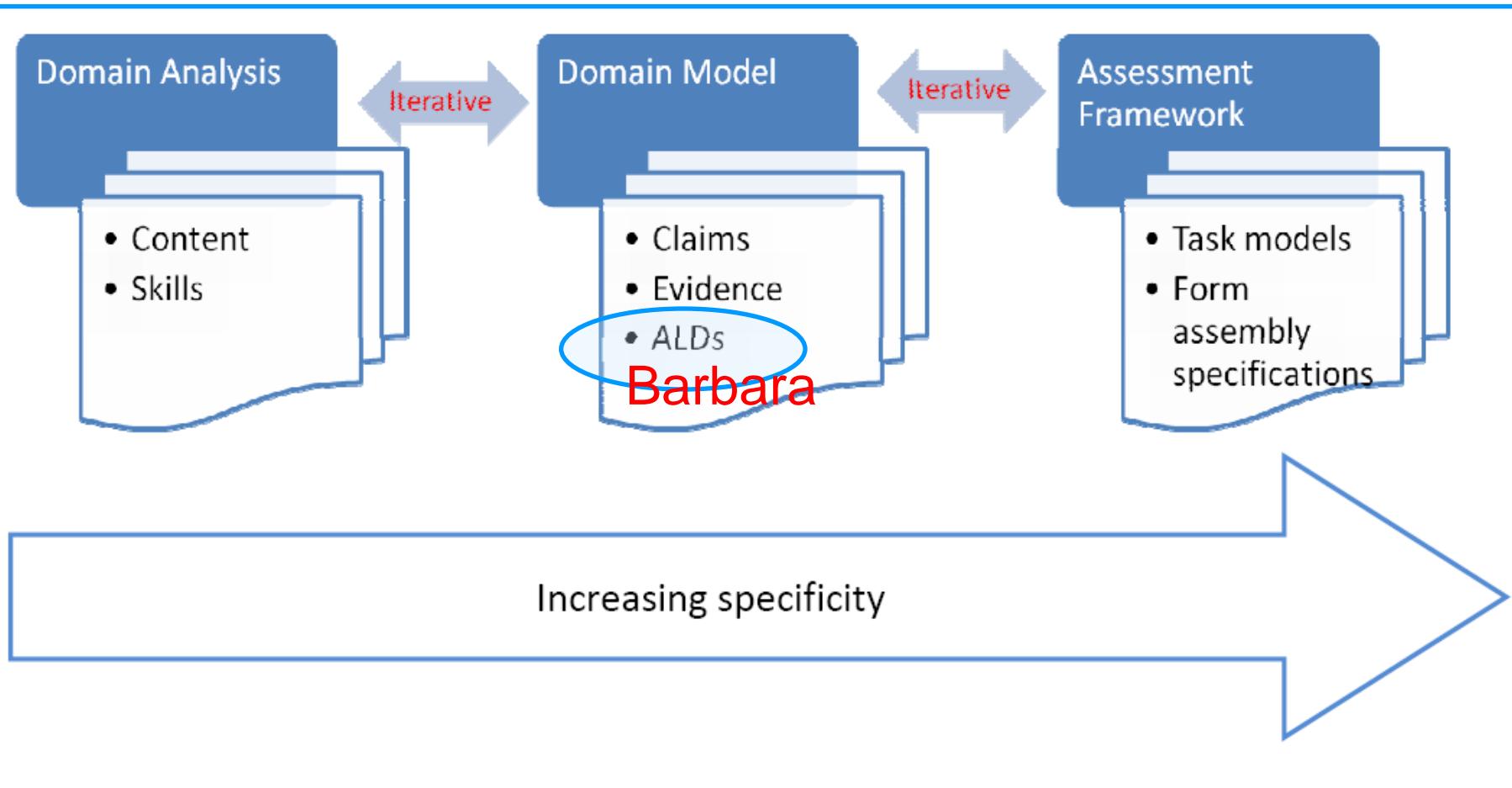
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# Overview of Session



Domain Analysis
- Content
- Skills

Iterative

Domain Model
- Claims
- Evidence
- ALDs
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Iterative

Assessment Framework
- Task models
- Form assembly specifications

Increasing specificity

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# ALDs Role in Score Reporting

- Communicate what scores mean

- Communicate what examinees at different performance levels know and are able to do

- Descriptions of performance level communicated through the ALDs

# ECD & ALDs

- Through the domain analysis & domain modeling, claims and evidence pairs are generated

- These claims and evidence pairs and evidence pairs are then mapped onto the performance continuum

- Focus is on exemplar claims that differentiate performance levels

# Articulation of ALDs

- Using exemplar claims SMEs then put into words the defining characteristics of the performance level to generate preliminary ALDs

- Iterative process

  - Identification of gaps in current set of claims

  - New claims may identify need to refine ALDs

# Benefits of Creating ALDs with ECD

- Continues the direct connection to intended score interpretations (through claims and evidence pairs)

- Reinforces the need to have tasks developed and included in the assessment that represent the ALD levels of performance – both in item development and form assembly specifications

- Strengthens the trail of validity evidence to support score interpretation and use

# ALD Methodology

## Illustrative study

- History (World, European, US)

- SMEs from the committees who worked on the domain analysis and generated claims and evidence pairs

# General Procedures

- Work in subject-specific groups

  - Map illustrative claims (typically 3) from the major domain topics identified from the domain analysis to score levels 3, 4, 5

  - Synthesize these claims into ALDs for score levels 3, 4 & 5

- Discipline-level ALDs

  - Look for similarities across subject-specific ALD

  - Articulate discipline-level ALDs based on commonalities

# History ALDs: ECD Input

- Domain analysis organized content primarily by time periods

- Claims and evidence pairs from domain modeliing

- Draft Historical Thinking Skills

# History: Subject-specific Groups

- Orientation included modeling of how a claim could be modified (e.g., through changing the HTS) to change its location on the score continuum

- Each group was tasked with mapping (or modifying) exemplar claims onto performance continuum

- Forms were provided for recording exemplar claims

- Each group chose own strategy; task to be completed by end of day

# History: Generation of Draft ALDs

- Subject-specific groups:  morning task

  - Bulleted lists/tables

  - Preparation of presentation

- Discipline ALD

  - Afternoon

  - Each group presentation

  - AP History coordinator summarized, looked for trends and commonalities

# Results

- Generated less than fully articulated subject-specific ALDs or discipline ALDs

  - Generated bulleted lists

  - Identified "difficulty drivers"

  - Needed more time to process similarities


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# Iterative Process

- Expected that subject-specific and discipline-level ALDs would not be fully articulated

- Study was first step in generating initial ALDs

- These were then used to develop more claims and evidence pairs for domain modeling

- Symbiotic relationship through iterations
  - Claims informed initial ALDs
  - ALDs were refined by more development of claims

## History (11)

| | |
|---|---|
| Orientation clear | 100% |
| Orientation helpful | 100% |
| Understood purpose | 100% |
| Understood task | 82% |
| Adj perf cats | 73% |
| Mapping for ALDs | 90% |
| Consensus | 90% |
| Time | 82% |
| Role in ALDs | 100% |
| Subject-specific ALD | 90% |

# Conclusion

- ECD supports intended score interpretations through

    - Domain analysis & modeling -- claims and evidence pairs

    - Claims and evidence pairs are mapped to score scale -- create ALDs

    - ALDs helps inform task development & form assembly specifications

    - ALDs and examinee performance can inform cutscores & provide validity evidence