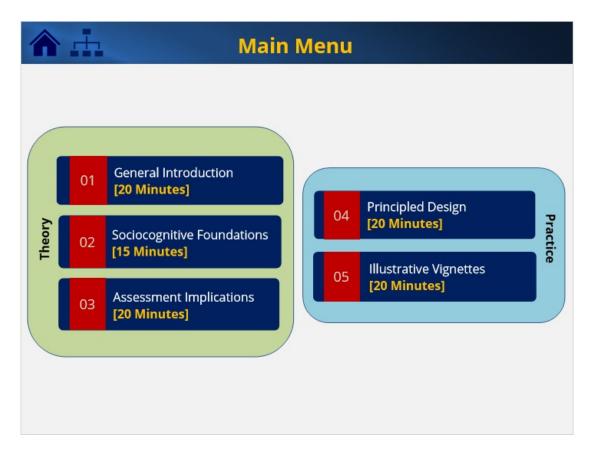# ITEMS Digital Module 09:

Sociocognitive Assessment for Diverse Populations

This document contains all core content slides from the module. In the digital module all slides can be accessed individually.
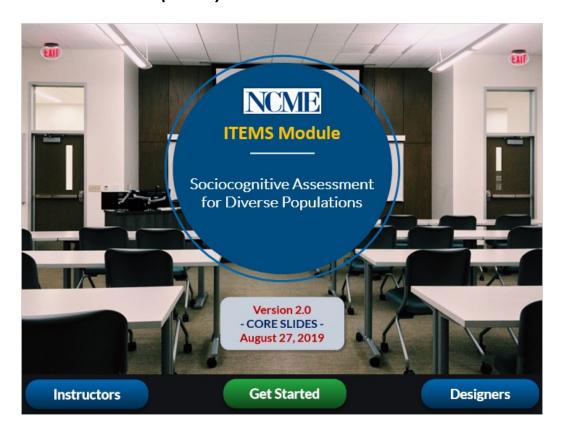
Module Organization

The module starts with an introductory section that leads to the main menu from which learners can select individual theory and application sections:
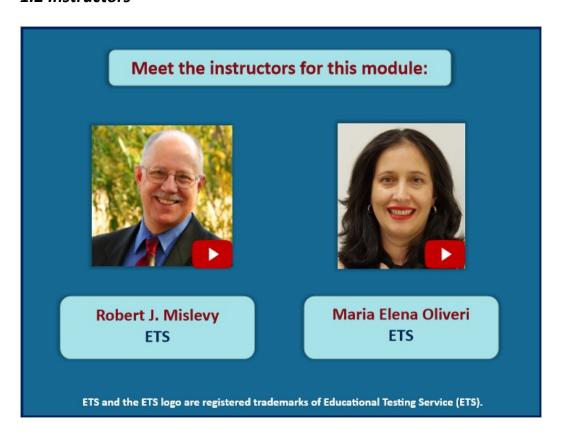
DM09 SLIDES (Sociocognitive Assessment, Version 2.0) II

1. Module Overview

1.1 Module Cover (START)

1.2 Instructors

1.3 Support

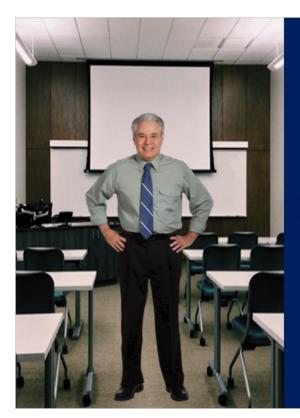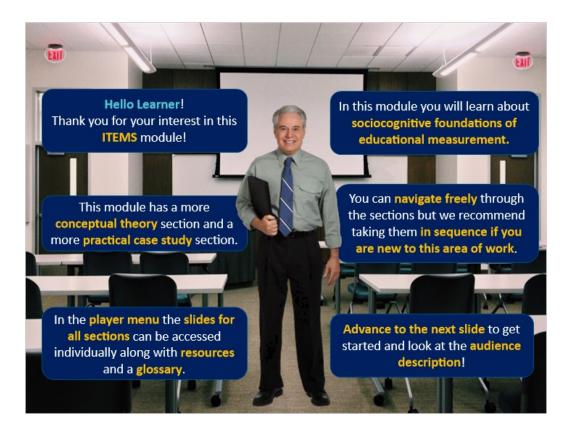### 1.4 Welcome

Welcome to the ITEMS Module!

The man to the left is Jonathan!

Along with the content developers he will be guiding you through the module content.

Please type your name in the textbox:

1.5 Overview

1.6 Target Audience

1.7 Expecations (I)

Let's discuss expectations....

1.8 Expectations (II)

1.9 Learning Objectives

1.10 Prerequisites

1.11 Resources

1.12 Copyright Statements

Copyright Notice

In the *Practice* **section** of this module, the instructors use an activity prototype called *Kitchen Design* to illustrate key conceptual ideas from sociocognitive assessment.

The **images** from the activity as well as the **concept** of the activity are protected by **ETS copyright**.
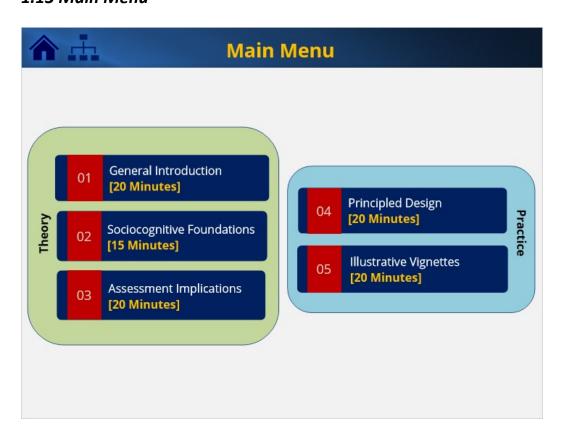
SBE Home Improvement
A Call for Submissions

We seek design proposals for a modular home kitchen. The selected finalist's design will be displayed in our Grunefeld location, then will be displayed nation wide.
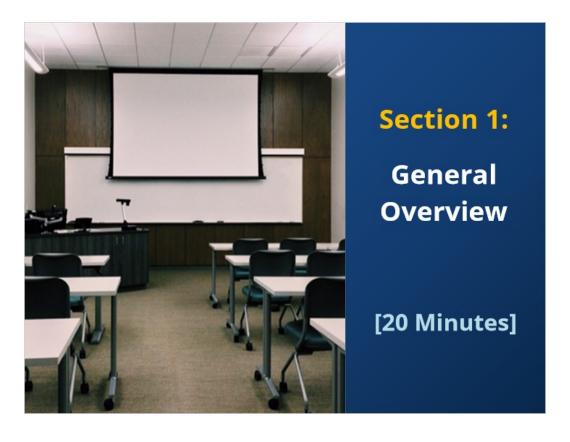
1.13 Main Menu
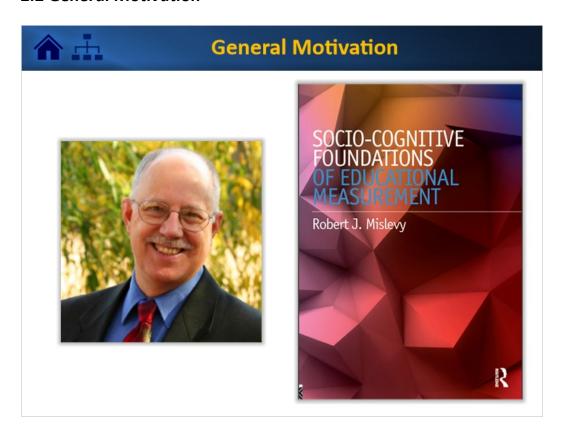
2. Section 1: General Overview

2.1 Cover: Section 1
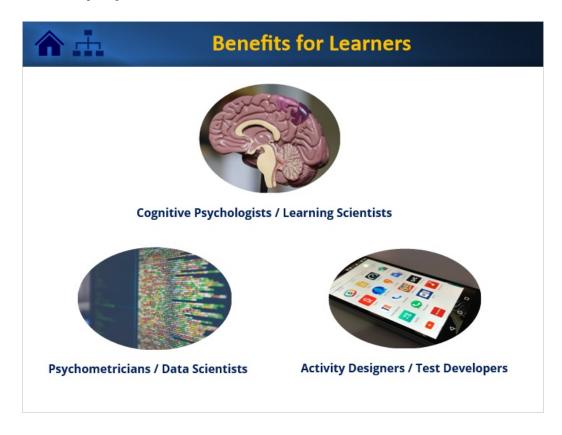
2.2 General Motivation

2.3 General Motivation
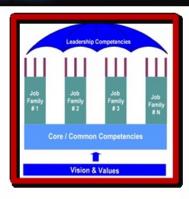
2.4 Benefits for Learners
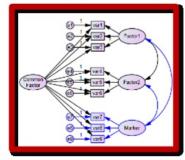
Psychometricians (Slide Layer)
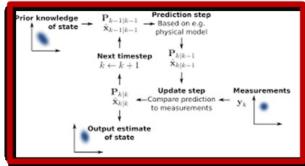
Cognitive Psychologists (Slide Layer)

Task Designers (Slide Layer)

2.5 A Question

A Question

Suppose we hold a **situative sociocognitive perspective** on the nature of **human capabilities and how they develop**.

But suppose we also think that **concepts and models of educational measurement**, which evolved under **trait and behavioral perspectives**, can nevertheless **hold value for practical work** in assessment.

How might we conceive of **educational measurement models** so that our interpretations and uses are **consistent with the sociocognitive perspective**?

2.6 A Proposed Answer
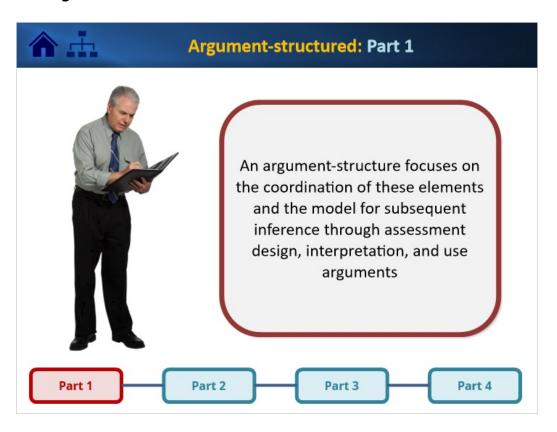
2.7 Breakdown (I)
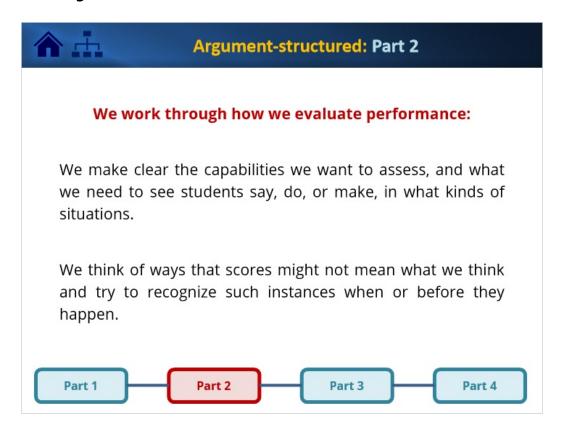
2.8 Breakdown (II)

2.9 Argument: Part 1

Argument-structured: Part 1

An argument-structure focuses on the coordination of these elements and the model for subsequent inference through assessment design, interpretation, and use arguments

Part 1 — Part 2 — Part 3 — Part 4

2.10 Argument: Part 2

Argument-structured: Part 2

We work through how we evaluate performance:

We make clear the capabilities we want to assess, and what we need to see students say, do, or make, in what kinds of situations.

We think of ways that scores might not mean what we think and try to recognize such instances when or before they happen.

Part 1 — Part 2 — Part 3 — Part 4

2.11 Argument: Part 3

2.12 Argument: Part 4

2.13 Sociocognitive: Part 1

Sociocognitively-framed: Part 1

A sociocognitive framing conditions the interpretation of the elements and interrelationships of the measurement-model semantic and mathematical layers in terms of regularities in human activity emerging from a complex adaptive system across and within individuals

Part 1   Part 2   Part 3   Part 4

2.14 Sociocognitive: Part 2

Sociocognitively-framed: Part 2

We reimagine how we think about capabilities:

We do not think of peoples' performances as caused by traits, true scores, or latent variables like variables in factor-analysis or item-response-theory (e.g., "theta" / θ).

Rather, we think of them as arising from the interactions between people (socially) and within people (cognitively).

Part 1 — Part 2 — Part 3 — Part 4

2.15 Sociocognitive: Part 3

2.16 Sociocognitive: Part 4

2.17 Constructivist: Part 1

Constructivist-realist: Part 1

A constructivist-realist interpretation of latent variables is that they are analyst's etic approximations of certain aspects of examinees' capabilities or behavioral tendencies in certain situations

Part 1 — Part 2 — Part 3 — Part 4

2.18 Constructivist: Part 2

Constructivist-realist: Part 2

We differentiate between real and constructed:

What is real is the capabilities that students use to perform in an assessment.

What is constructed is our approximations of their unique capabilities in terms of the variables in the measurement model, which are not the same thing.

Part 1 — Part 2 — Part 3 — Part 4

2.19 Constructivist: Part 3

2.20 Constructivist: Part 4

Constructivist-realist: Part 4

Understanding the difference between behaviors and skills that are real and the constructions we create for them in abstract measurement models

Understanding how generalizable interpretations around constructed statistical variables are to support claims about real learner behaviors and skills in different cultural contexts

Part 1 — Part 2 — Part 3 — Part 4

2.21 Bayesian: Part 1

2.22 Bayesian: Part 2

Subjectivist-Bayesian: Part 2

We use our models as tools for reasoning:

We take variables in a measurement model as approximations of patterns of performance in some group of persons and we take the probabilities to be expressions of our knowledge in the model framework.

The probabilities and the models are tools for reasoning, and probabilities are part of the toolkit.

Part 1 — Part 2 — Part 3 — Part 4

2.23 Bayesian: Part 3

2.24 Bayesian: Part 4

2.25 Latent-variable: Part 1

Latent-variable Modeling: Part 1

Latent-variable measurement modeling means using unobservable (latent) variables to represent aspects of persons' capabilities. Observable variables are modeled as depending on them stochastically.

Part 1 — Part 2 — Part 3 — Part 4

2.26 Latent-variable: Part 2

Latent-variable Modeling: Part 2

We approximate capabilities with unobserved variables:

Unobserved variables in measurement models that we estimate are used to reason about people.

One-dimensional models have one variable, multidimensional models have multiple variables.

This refers to the form of models and not necessarily claims about the nature of capabilities.

| Part 1 | Part 2 | Part 3 | Part 4 |

2.27 Latent-variable: Part 3

2.28 Latent-variable: Part 4

2.29 Summary (I)

We can view the **person variables in measurement models** as descriptors of individuals in a space defined by **across-person regularities in a complex adaptive system** in some cultural/ historical neighborhood. Its usefulness and span are **empirical issues**.

2.30 Summary (II)

2.31 Summary (III)

2.32 In other words….

3. Section 2: Sociocognitive Foundations

3.1 Cover: Section 2

3.2 Topic Selection

3.3 Bookmark: Processing Layers

3.4 Layers (I)

Person-level experience
Situations and events as
people experience them,
interacting with the physical
and social world.

Untitled Layer 1 (Slide Layer)

Person-level experience
Situations and events as people experience them, interacting with the physical and social world.

3.5 Layers (II)

Across-person linguistic, cultural, & substantive (LCS) patterns
Regularities over unique instances of person-level situations and events.

Person-level experience
Situations and events as people experience them, interacting with the physical and social world.

LCS patterns are culturally and historically contingent!

3.6 Layers (III)

Across-person linguistic, cultural, & substantive (LCS) patterns
Regularities over unique instances of person-level situations and events.

Person-level experience
Situations and events as people experience them, interacting with the physical and social world.

3.7 Layers (IV)

Across-person linguistic, cultural, & substantive (LCS) patterns
Regularities over unique instances of person-level situations and events.

Person-level experience
Situations and events as people experience them, interacting with the physical and social world.

Within-person sub-personal cognition
Neural associations, unique patterns developed through personal experiences.

3.8 Layers (V)

Across-person linguistic, cultural, & substantive (LCS) patterns
Regularities over unique instances of person-level situations and events.

Person-level experience
Situations and events as people experience them, interacting with the physical and social world.

Within-person sub-personal cognition
Neural associations, unique patterns developed through personal experiences.

3.9 Layers (VI)

Across-person linguistic, cultural, & substantive (LCS) patterns
Regularities over unique instances of person-level situations and events.

Person-level experience
Situations and events as people experience them, interacting with the physical and social world.

Within-person sub-personal cognition
Neural associations, unique patterns developed through personal experiences.

3.10 Layers (VII)

Across-person linguistic, cultural, & substantive (LCS) patterns
Regularities over unique instances of person-level situations and events.

Person-level experience
Situations and events as people experience them, interacting with the physical and social world.

Within-person sub-personal cognition
Neural associations, unique patterns developed through personal experiences.

A complex adaptive system

3.11 Summary (I)

Summary (I)

Every **person-level situation** builds around **many LCS patterns** of many kinds and levels.

Our experience in a situation is typically **assembled around resources** of many kinds and **blended with features of that situation**.

In detail, it is a **different situation** for each individual person.

3.12 Summary (II)

3.13 Summary (III)

3.14 In other words….

3.15 Bookend: Processing Layers

3.16 Bookmark: *Model-based Reasoning*

3.17 Model (II)

C) Mathematical structure of psychometric model

$$p(x|\theta) = \Pi p(x_i|\theta)$$

D) Allied representational forms (e.g., path diagram)

B) Psychometric model semantic entities and relationships

Mapping interpretations of aspects of real world

- A model addresses only certain **abstracted entities** and **relationships**, at certain **time scales** and **grain sizes**
- Models are **tools** people use for **evidence-based reasoning**
- **Validity** depends on the **aptness of the relationship** among a **system**, a **model**, a **user**, and a **purpose**.

A) Real-World situation

E) Situation reconceived through model

F) Model-based projection to another situation

3.18 Model (III)

C) Mathematical structure of psychometric model

$$p(x|\theta) = \Pi p(x_i|\theta)$$

D) Allied representational forms (e.g., path diagram)

B) Psychometric model semantic entities and relationships

Mapping

- The model structure and equations are **distinct from the semantics**
- The equations are about **patterns** - they don't care about how we **interpret** them
- Terms with surplus meaning can suggest **real-world interpretations** and uses that the model **does not support**

A) Real-World situation

E) Situation reconceived through model

F) Model-based projection to another situation

3.19 Model (IV)

3.20 Model (V)

3.21 Model (VI)

Diagram labels:

- **C) Mathematical structure of psychometric model**
  - $p(x|\theta) = \Pi p(x_i|\theta)$
- **D) Allied representational forms (e.g., path diagram)**
- **B) Psychometric model semantic entities and relationships**
- **Mapping interpretations of aspects of real-world things and events into psychometric-model semantic entities and relationships**
- **A) Real-World situation**
- **E) Situation reconceived through model**
- **F) Model-based projection to another situation**

3.22 Summary (I)

3.23 Summary (II)

The measurement model expresses regularities and variation:

- regularity through person and task parameters

- variation through their distributions

- variation through the probability model itself

- variation through where and how the model doesn't fit

How well this measurement model approximation suits the intended interpretation and uses is the subject of validity

3.24 Summary (III)

3.25 In other words….

In other words….

George Box said **"all models are wrong, but some models are useful."**

Understanding modeling more deeply helps us **build and use measurement models** more **effectively**, more **fairly**, and more **validly**.

3.26 Bookend: Processing Layers

This is the end of this part.

Topic Selection
Menu

3.27 Bookmark: Score Reporting

3.28 Reporting (I)

C) Mathematical structure of psychometric model

$p(x|\theta)=\Pi p(x_i|\theta)$

D) Allied representational forms (e.g., path diagram)

B) Psychometric model semantic entities and relationships

Mapping interpretations of aspects of real-world things and events into psychometric-model semantic entities and relationships

A) Real-World situation

E) Situation reconceived through model

F) Model-based projection to another situation

3.29 Model (I)

C) Mathematical structure of psychometric model

$p(x|\theta) = \Pi p(x_i|\theta)$

D) Allied representational forms (e.g., path diagram)

B) Psychometric model semantic entities and relationships

Mapping interpretations of aspects of real-world things and events into psychometric-model semantic entities and relationships

A) Real-World situation

E) Situation reconceived through model

F) Model-based projection to another situation

3.30 Reporting (II)

C) Mathematical structure of psychometric model

$p(x|\theta) = \Pi p(x_i|\theta)$

D) Allied representational forms (e.g., path diagram)

B) Psychometric model semantic entities and relationships

Mapping interpretations of aspects of real-world things and events into psychometric-model semantic entities and relationships

Interpretation through sociocognitive semantic entities and relationships

A) Real-World situation

E) Situation reconceived through model

F) Model-based projection to another situation

3.31 Reporting (III)

C) Mathematical structure of psychometric model

$$p(x|\theta)=\Pi p(x_i|\theta)$$

D) Allied representational forms (e.g., path diagram)

B) Psychometric model semantic entities and relationships

Mapping interpretations of aspects of real-world things and events into psychometric-model semantic entities and relationships

Interpretation through sociocognitive semantic entities and relationships

A) Real-World situation

E) Situation reconceived through model

F) Model-based projection to another situation

3.32 Reporting (IV)

3.33 Reporting (V)

3.34 Summary (I)

Many linguistic, cultural, and substantive patterns at many levels are involved in:

- every assessment situation

- every individual's assembly of resources to understand and act in it

Lots of opportunities for things to go awry!

3.35 Summary (II)

The **ideal circumstance** in educational measurement is that **the only sources of difficulty** an examinee might encounter relate directly to the **"knowledge, skills, or other attributes"** the assessor has in mind as the **construct of interest**.

3.36 Summary (III)

Failures in measurement are due to various factors:

- language
- construct-irrelevant variance
- differential item functioning (DIF)
- parameter drift

In sociocognitive terms, these are the result of varying prevalence of involved LCS patterns

3.37 In other words….

In other words….

A lot must be in place for persons' scores to **mean what we think they mean**.

A **sociocognitive perspective** helps us use assessments and models so as to **approximate this** and to **recognize problems**.

3.38 Bookend: Processing Layers

This is the end of this part.

Topic Selection Menu

3.39 Final Thoughts (I)

3.40 Final Thought (II)

Final Thoughts (II)

Interactive assessments
Complex performances
Diverse populations
Technological flexibility
Modern world

Cannot ignore complexities

Decisions have consequences

4. Section 3: Assessment Implications

4.1 Cover: Section 3
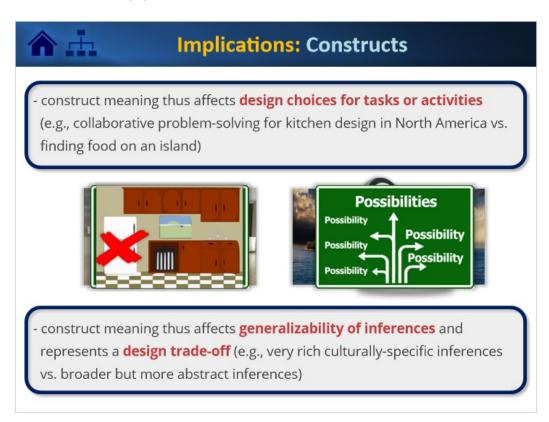
4.2 Topic Selection

4.3 Constructs (I)

Implications: Constructs

- constructs are **conceptual tools situated in particular cultural moments and contexts** (e.g., time, geography, disciplines, practices)

- construct **meaning varies** and depends on the **nature of the construct** (e.g., mixed-number subtraction vs. collaborative problem-solving)

4.4 Constructs (II)

Implications: Constructs

- construct meaning thus affects **design choices for tasks or activities** (e.g., collaborative problem-solving for kitchen design in North America vs. finding food on an island)

- construct meaning thus affects **generalizability of inferences** and represents a **design trade-off** (e.g., very rich culturally-specific inferences vs. broader but more abstract inferences)

4.5 Reliability (II)

Implications: Reliability

- reliability in **formative assessment** means one has **more measurement opportunities** but **informational value** still needs to be characterized

- reliability can be evaluated through **studies during pre-operational design phases** (e.g., for human raters, automated scoring systems, task variants)

4.6 Reliability (I)

Implications: Reliability

- reliability is still **critical under a sociocognitive perspective**, which still requires us to **characterize the value of information**
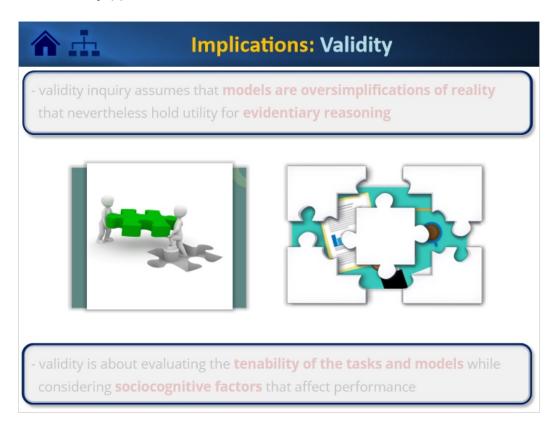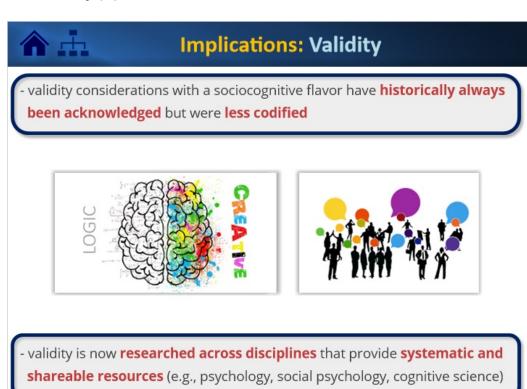
- reliability gets evaluated through **measurement models** that may be wrong; this requires more **complex measurement models and notions** that capture **informational value** under a sociocognitive perspective

4.7 Validity (I)

Implications: Validity

- validity inquiry assumes that **models are oversimplifications of reality** that nevertheless hold utility for **evidentiary reasoning**

- validity is about evaluating the **tenability of the tasks and models** while considering **sociocognitive factors** that affect performance

4.8 Validity (II)

Implications: Validity

- validity considerations with a sociocognitive flavor have **historically always been acknowledged** but were **less codified**

- validity is now **researched across disciplines** that provide **systematic and shareable resources** (e.g., psychology, social psychology, cognitive science)

4.9 Validity (III)

Implications: Validity

- validity under a sociocognitive perspective brings **greater awareness** to the required **knowledge and activity structures** (e.g., linguistic, cultural)

- sociocognitive research provides a **plethora of possible explanations** for why **things go awry in assessment** due to cultural and contextual factors

4.10 Fairness (I)

Implications: Fairness

- fairness implies that **reasoning through a measurement model structure is appropriate** given what is known about **sociocognitive factors**

- fairness evaluations require **individual person-fit statistics** and **group-level fit statistics** as well as knowledge about **task characteristics**

4.11 Fairness (II)

Implications: Fairness

- fairness evaluations with individual person fit statistics is useful when there are **enough items with different characteristics** but group-level evaluations provide **more statistical power**

- fairness evaluations should include other methods for evaluating **sources of construct-irrelevant variance** from a sociocognitive perspective via **think-aloud studies, cognitive pre-testing, process data analysis, and so on**

4.12 Teams (I)

Implications: Teams

- across all kinds of assessment – but **especially more complex ones** – there are **many complicated factors** that affect the **interactions between learners and tasks** from a sociocognitive perspective

- **no single person** can be an expert on all relevant aspects – **interdisciplinary teams that share common language and exchange ideas** are critical

4.13 Teams (II)

Implications: Teams

- everyone on the team should know at least the **first or second layers of the most important ideas** of others on the team to work together effectively

- **siloed knowledge, waterfall design processes, and limited pre-testing** are a few of the more traditional assessment design processes that **do not work for complex assessments** under a sociocognitive perspective

5. Section 4: Principled Design

5.1 Cover: Section 4

5.2 Objectives: Section 4

Learning Objectives

1. Provide an overview of issues and considerations related to a sociocognitive perspective to assessment design and development

2. Illustrate the application of a sociocognitive perspective to task design, scoring, and feedback

3. Connect the evidence-centered design approach to a sociocognitive perspective to assessment design and development

5.3 Topic Selection

5.4 Bookmark: Evidence-centered Design

5.5 Key Questions (I)

Key Questions (I)

Suppose we seek to:

- **develop a task** to assess collaboration and communication in the workplace

- **administer the task** to populations from diverse backgrounds

- **provide feedback to test takers** on their performance

5.6 ECD Introduction

ECD Primer (Slide Layer)

5.7 Topic Selection
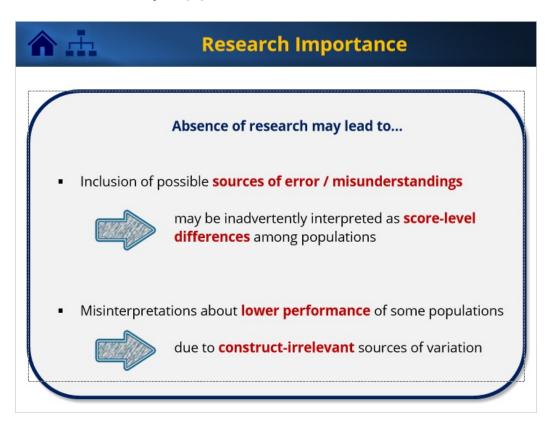
5.8 Bookmark: Domain Analysis

5.9 Domain Analysis (I)

General Principles

Substantive information about the domain is gathered.
What are the key knowledge, skills, and abilities of value?

Reading

Listening

Writing

Speaking

Interactions and social practices are identified and included.
What are valued situations and performances?

5.10 Domain Analysis (II)
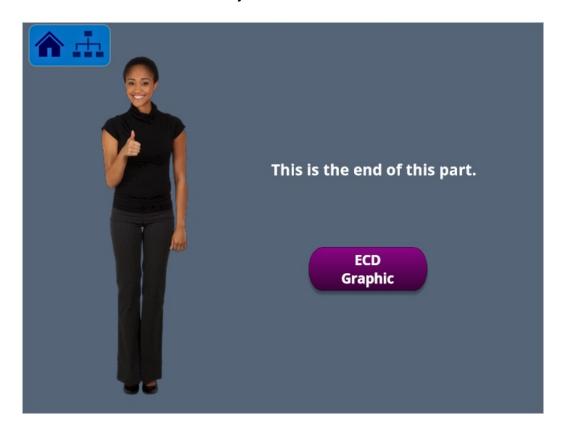
Research Questions

- How shall **individuals/avatars** be represented in the task?

- How do individuals **negotiate / solve conflicts** in the target culture?

- What level of **linguistic formalism** is used in discussions / dialogues?

- What **level of support** should the activities in the task provide?

- Does the task require **native-like fluency** in the test language?

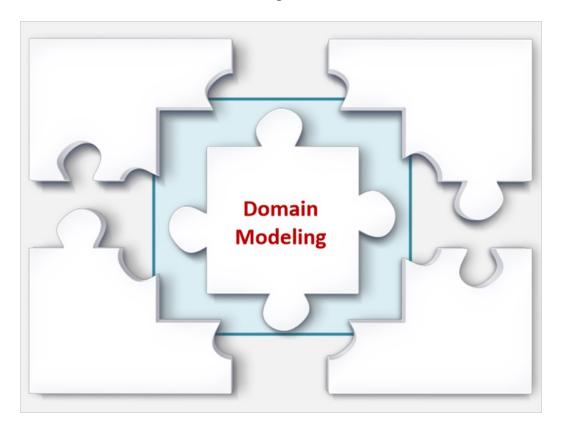- Does the task require **fluency in the cultural / social norms**?

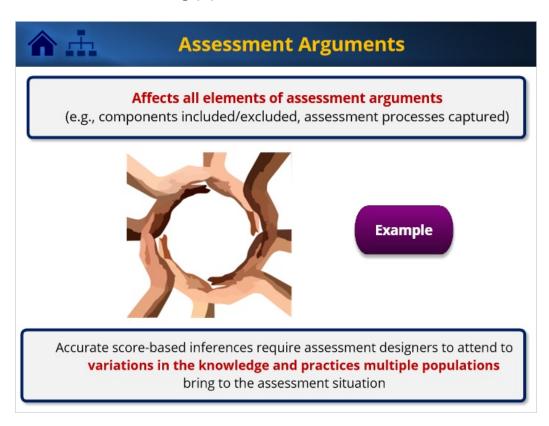## 5.11 Domain Analysis (II)

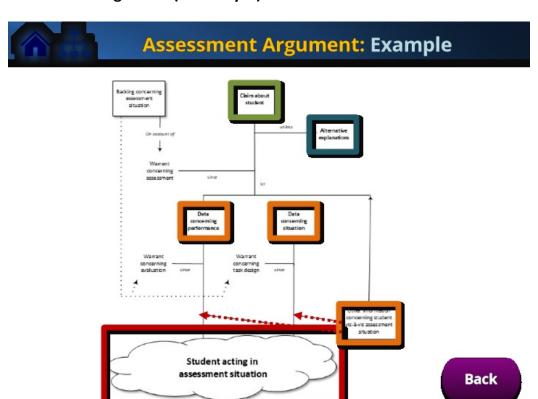### 5.12 Bookend: Domain Analysis

5.13 Bookmark: Domain Modeling

5.14 Domain Modeling (I)

General Principles

Aspects of **capabilities, situations for observing students, and evidentiary features of performance** are examined.

Tradeoffs as to **evidentiary focus**, **feedback effects**, **suitability** for different purposes / populations, and **alternative explanations** are considered.

5.15 Domain Modeling (II)

Assessment Arguments

Affects all elements of assessment arguments
(e.g., components included/excluded, assessment processes captured)

Example

Accurate score-based inferences require assessment designers to attend to
variations in the knowledge and practices multiple populations
bring to the assessment situation

Assessment Argument (Slide Layer)

Assessment Argument: Example

5.16 Domain Modeling (III)

Design Pattern (Slide Layer)

Attribute	Description
Specific skills to be assessed	Lists the component(s) and skill(s) that will be the focus of the tasks to be created
Profile of test-taker population	Describes the expected test-taker population including the population's targeted linguistic or cultural characteristics
Focal skills to be assessed	Describes the primary knowledge, skill(s), or other attributes to be assessed
Additional skills	Documents additional non-construct required skills that are necessary to perform the task (e.g., knowledge of English); possible sources of construct-irrelevant variance may be introduced and needs to be considered
Potential Observations	The range of features that could be used as (in)direct evidence of performance of the focal skills assessed.

5.17 Domain Modeling (IV)

Research Questions

- What are the **claims** sought to be made from the assessments?

- What are possible sources of **ancillary skills** that may raise **alternative explanations** of performance arising from **construct-irrelevant** demands?

- Do the test-takers have the **necessary skills** to complete the task?

5.18 Domain Modeling (V)

Domain Modeling: Sociocognitive Lens
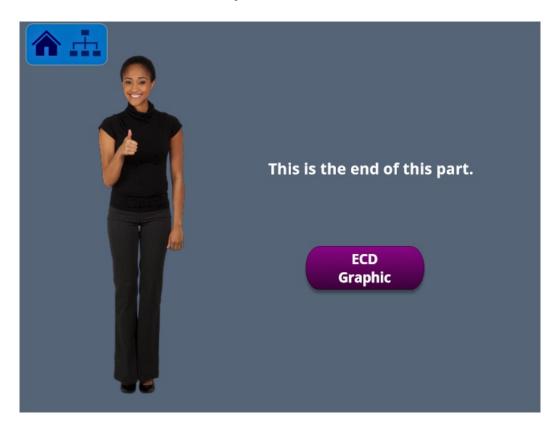
Absence of research may lead to...

- The inclusion of **alternative explanations** for test performance
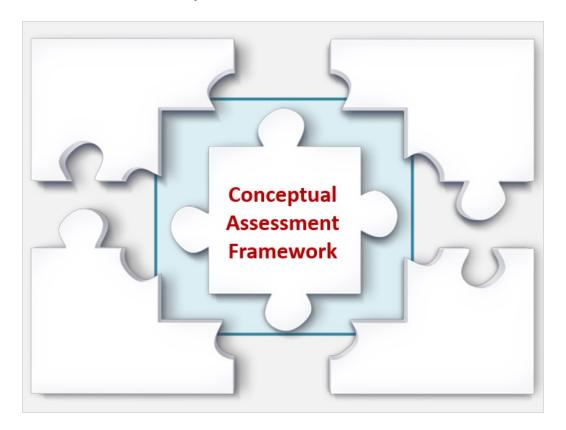
  - lack of familiarity with the format of the test
  - differences in navigational skills
  - others

- Results in **incorrect inferences about skills** based on responses
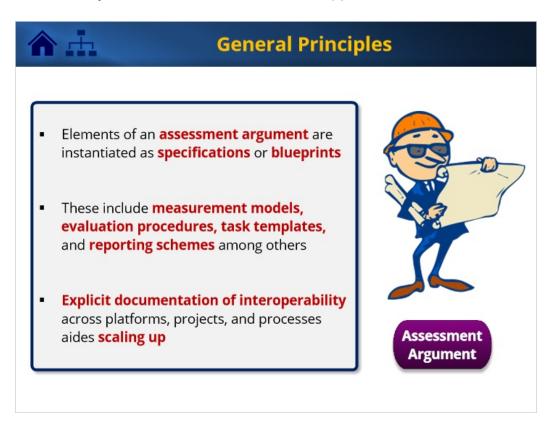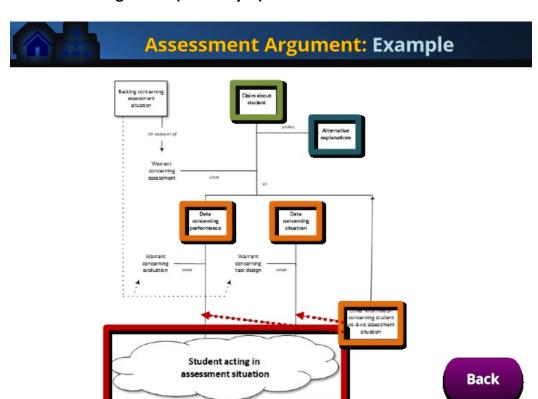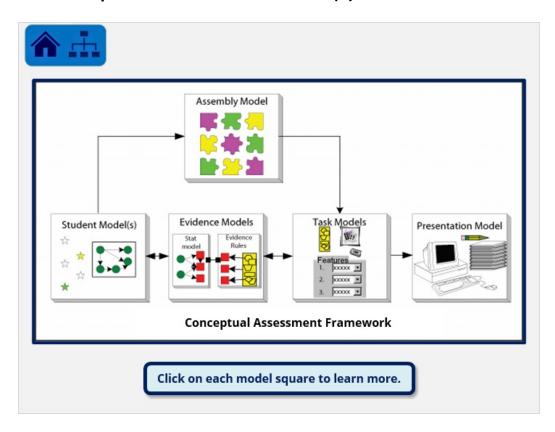
5.19 Bookend: Domain Analysis

5.20 Bookmark: Conceptual Assessment Framework

5.21 Conceptual Assessment Framework (I)

General Principles

- Elements of an **assessment argument** are instantiated as **specifications** or **blueprints**

- These include **measurement models, evaluation procedures, task templates,** and **reporting schemes** among others

- **Explicit documentation of interoperability** across platforms, projects, and processes aides **scaling up**

Assessment Argument

Assessment Argument (Slide Layer)

5.22 Conceptual Assessment Framework (II)
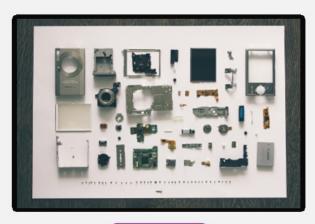

Conceptual Assessment Framework

Click on each model square to learn more.

Assembly Model (Slide Layer)

Assembly Model

Includes decisions regarding administration, analysis, reporting functions, and the ongoing creation of tasks

Back to CAF Graphic

Student Model (Slide Layer)

Student Model SC (Slide Layer)

Student Model – Sociocognitive Perspective

- Are the competencies defined in comparable ways across cultures?

- Are there aspects of focal constructs that may differ across populations or due to differences in social norms?

- Are the differences in context familiarity that may lead to construct-irrelevant scores?

General Perspective

Back to CAF Graphic

Task Model (Slide Layer)

Task Model SC (Slide Layer)

Task Model – Sociocognitive Perspective

- Are there technological, linguistic, or cultural differences that may lead different test-taker groups to understand the stimuli differentially or that may be familiar to some groups and unfamiliar to other groups?

- Are there aspects of the skills assessed that are not part of the competency model for some versus other groups?

- Are there differences across groups in background knowledge that may help explain differential response patterns across groups?
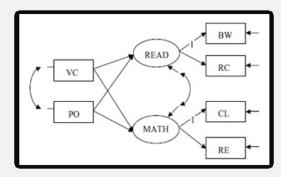
Are those factors construct-relevant or irrelevant?

General Perspective

Back to CAF Graphic

Evidence Model (Slide Layer)

Evidence Model SC (Slide Layer)

Presentation Model (Slide Layer)

Presentation Model – General Perspective

Includes decisions regarding students' interactions with the assessment platform as well as evaluation, reporting, instructional feedback, and integration in system learning components

Sociocognitive Perspective

Back to CAF Graphic

Presentation Model SC (Slide Layer)

Presentation Model - Sociocognitive Perspective

- Are the reports based on task performance understandable by the various populations?

- Is the feedback provided by the task relevant to the different populations?

General Perspective

Back to CAF Graphic

5.23 Bookend: Domain Analysis

This is the end of this part.

ECD
Graphic

5.24 Bookmark: Fairness

5.25 Sociocognitive Perspective

Sociocognitive Perspective

Describes ways to **remain attentive to key elements** of task design and construct representations and the type of resources / knowledge **culturally and linguistically diverse populations** might bring to the assessment.

Views **capabilities as emerging** from the interplay of cognitive processes **within persons** and social and cultural processes **across persons** in a complex adaptive system.

5.26 Social and Cultural Diversity

5.27 Fairness in International Contexts

Fairness in International Contexts

At **national or international levels**, student populations are **typically rather diverse** due to **student mobility** or large numbers of **immigrants and refugees**

These learners have **diverse cultural, linguistic, and professional backgrounds** that affect how they **interpret** assessment questions, **respond** to particular question tasks, and **engage with one another** in collaborative contexts

5.28 Construct-Irrelevant Variance

Construct-Irrelevant Variance

Source	Description	Examples
Item language	Use of idioms or phrases unique to a culture, which has a figurative (not literal) meaning Differential familiarity with proper names associated with particular cultures	• "struck by the fact" • "flush with" • "raining cats and dogs" Lope de Vega Inuit
Geocultural references	Differential familiarity with city, town, or county names or peculiarities of legal systems	• Rimac river • Madison county • Particulars of national legal systems
Test materials	Differential familiarity with technology-enhanced item types	• Drag-and-drop, select all
Test-taking	Different approaches to guessing, answering unknown items, or	Leaving unknown items

5.29 Assessment Standards (I)

5.30 Professional Guidelines (I)
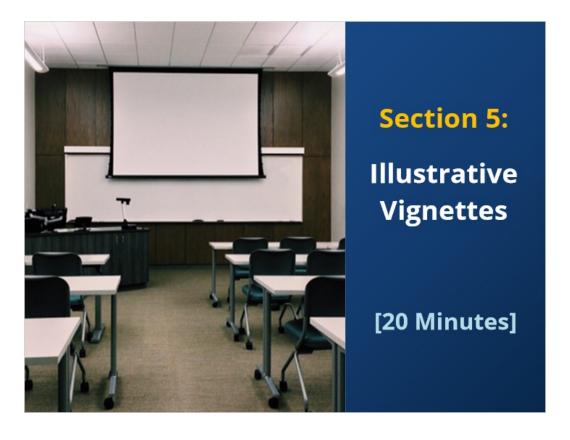
5.31 Bookend: Domain Analysis

6. Section 5: Illustrative Vignettes
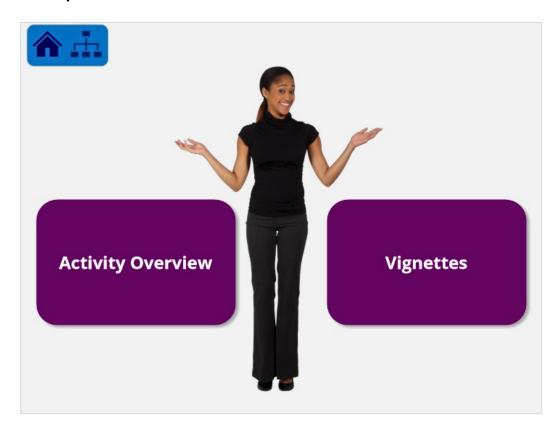
6.1 Cover: Section 5
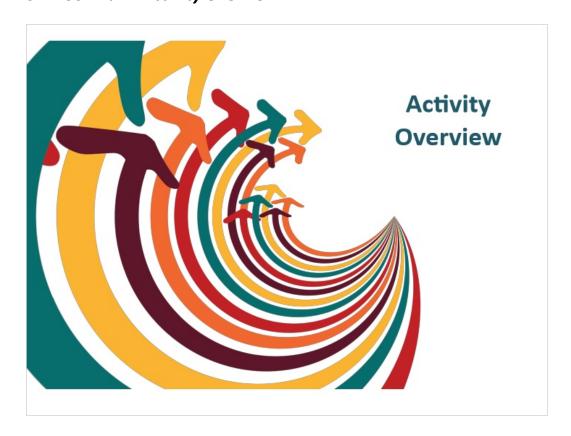
6.2 Objectives: Section 4

Learning Objectives

1. Provide a conceptual overview of issues and considerations related to a sociocognitive perspective to assessment development

2. Illustrate how these principles play out when designing a prototype of a digitally delivered formative task for communication and collaboration

3. Illustrate how the design choices related to task design, scoring, and feedback relate to the evidence-centered design approach from a sociocognitive perspective to assessment design and development
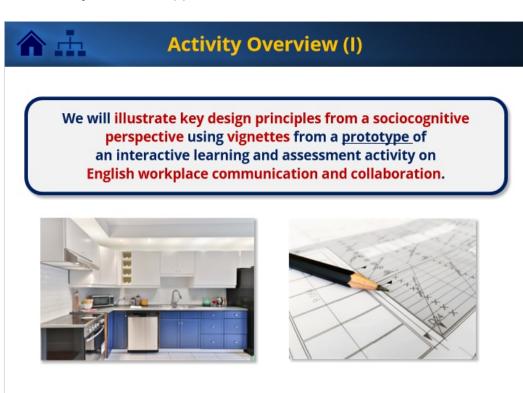
6.3 Topic Selection

6.4 Bookmark: Activity Overview

6.5 Activity Overview (I)
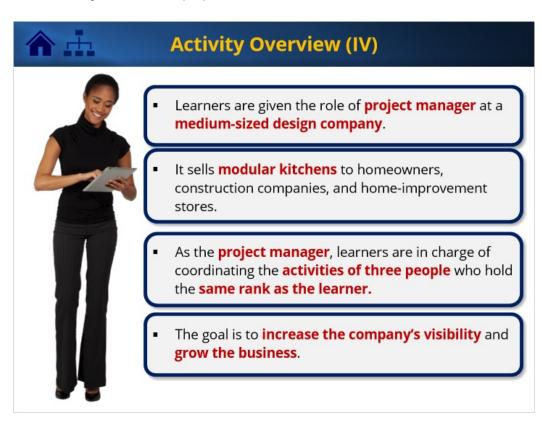
6.6 Activity Overview (II)

6.7 Activity Overview (III)

6.8 Activity Overview (IV)

Activity Overview (IV)

- Learners are given the role of **project manager** at a **medium-sized design company**.

- It sells **modular kitchens** to homeowners, construction companies, and home-improvement stores.

- As the **project manager**, learners are in charge of coordinating the **activities of three people** who hold the **same rank as the learner**.

- The goal is to **increase the company's visibility** and **grow the business**.

6.9 Activity Overview (V)

6.10 Construct (I)

Construct: Workplace Skills

Domain Definition

Workplace English Communication and Collaboration

Sources Reviewed

Research Review: Studies related to theory, assessment models, and development practices

Standards: Common European Framework, Canadian Language Benchmarks

Expert input: Meetings and focus groups with experts

O*NET Data: Secondary data analyses

6.11 Construct (II)

A circular diagram titled "Workplace English" at the center, divided into four quadrants:

Reading (to understand) — Client Needs, Policies, Instructions from Manuals, Emailed Instructions, Scholarly Articles

Listening (to) — Understand Overseas Policies, Comprehend Training Programs, Follow Verbal Instructions, Understand Accents, Dialects, Idioms, Share Resources from Conferences

Writing (to) — Write Appropriately/Grammatically, Capture Relevant Information, Summarize Effectively, Write Clear Instructions, Write Memos Efficiently/Clearly, Argue Effectively

Speaking (to) — Understand a Message's Main Idea, Convey Ideas/Procedures, Use Clear Pronunciation, Respond Appropriately, Interview & Negotiate, Lead Meetings

6.12 Construct (III)

Construct: Workplace Skills

Workplace English Communication and Collaboration

- **Rhetorical Awareness**
  - Audience Awareness
  - Understanding context of communication
  - Understanding of communication purpose
- **Situational Awareness**
  - Understanding informational needs to further the task
  - Need to repair gaps in understanding
- **Business Pragmatics**
  - Understanding one's role in a team
  - Understanding one's place in a business hierarchy
- **Maintaining & Sharing Understanding**
  - Understanding team's perspectives, abilities, and expectations
  - Establishing common ground
  - Communicating plans and status updates
  - Understanding one's place in a business hierarchy
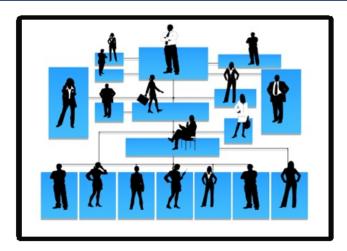
6.13 Construct (IV)

Business Pragmatics (Slide Layer)
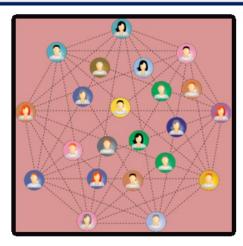

Business Pragmatics

Understanding of someone's role in a team; place in a business hierarchy; relationship to others outside one's own organization (e.g. client, vendor, advisor, or other authorities).

Back to Main Slide

Situational Awareness (Slide Layer)

Situational Awareness

Understanding of the immediate or long-term informational needs to further the task; need to repair gaps in other's understanding; need to establish/re-establish common ground.

Back to Main Slide

Rhetorical Awareness (Slide Layer)

Rhetorical Awareness

Analyzing and understanding the purpose, audience, stakeholders, and context of the situation in which one communicates to move the action forward.

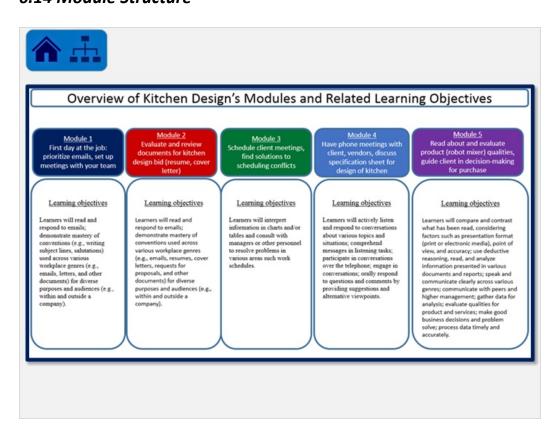Back to Main Slide

Maintaining and Sharing Understanding (Slide Layer)

6.14 Module Structure

Overview of Kitchen Design's Modules and Related Learning Objectives

Module 1
First day at the job: prioritize emails, set up meetings with your team

Learning objectives

Learners will read and respond to emails; demonstrate mastery of conventions (e.g., writing subject lines, salutations) used across various workplace genres (e.g., emails, letters, and other documents) for diverse purposes and audiences (e.g., within and outside a company).

Module 2
Evaluate and review documents for kitchen design bid (resume, cover letter)

Learning objectives

Learners will read and respond to emails; demonstrate mastery of conventions used across various workplace genres (e.g., emails, resumes, cover letters, requests for proposals, and other documents) for diverse purposes and audiences (e.g., within and outside a company).

Module 3
Schedule client meetings, find solutions to scheduling conflicts

Learning objectives

Learners will interpret information in charts and/or tables and consult with managers or other personnel to resolve problems in various areas such work schedules.

Module 4
Have phone meetings with client, vendors, discuss specification sheet for design of kitchen

Learning objectives

Learners will actively listen and respond to conversations about various topics and situations; comprehend messages in listening tasks; participate in conversations over the telephone; engage in conversations; orally respond to questions and comments by providing suggestions and alternative viewpoints.

Module 5
Read about and evaluate product (robot mixer) qualities, guide client in decision-making for purchase

Learning objectives

Learners will compare and contrast what has been read, considering factors such as presentation format (print or electronic media), point of view, and accuracy; use deductive reasoning, read, and analyze information presented in various documents and reports; speak and communicate clearly across various genres; communicate with peers and higher management; gather data for analysis; evaluate qualities for product and services; make good business decisions and problem solve; process data timely and accurately.

6.15 Bookend: Domain Analysis

6.16 Bookmark: Vignettes

Illustrative
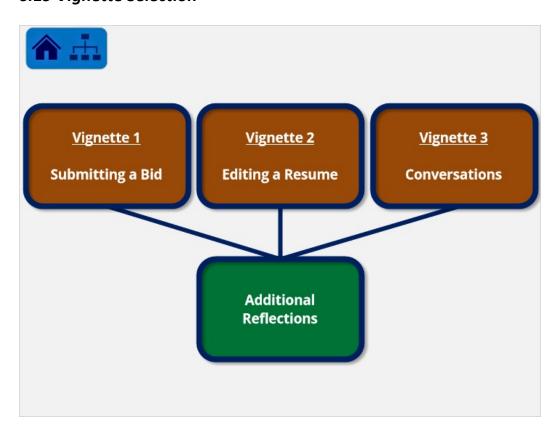Vignettes

6.17 Vignettes Overview (I)

6.18 Vignettes Overview (II)

6.19 Vignette Selection

6.20 Bookmark: Vignette 1

6.21 Bid (I)

Task Design: Submitting a Bid

Learners:

- Read and respond to emails
- Demonstrate mastery of conventions used across various workplace genres (e.g., emails, resumes, cover letters, RFPs, and other documents)
- Read and respond to documents suitable for diverse purposes and audiences (e.g., within and outside a company)

Tasks:

Provide opportunities to learners to practice reading, writing, and responding to documents from diverse workplace genres (e.g., submitting a bid).

6.22 Bid (II)

Sociocognitive Perspective

A sociocognitive perspective has an effect on the design of language, visuals, and relationships.
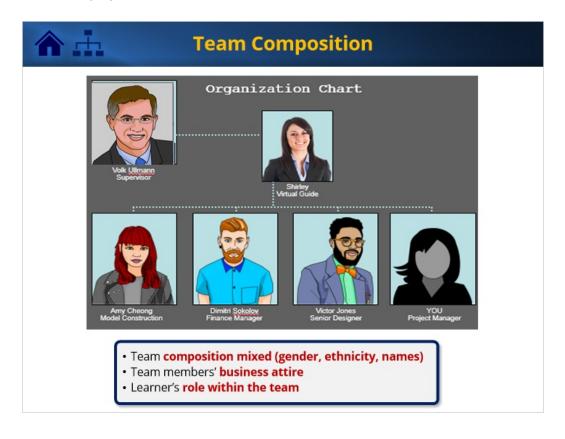
- Actors reading the avatars' scripts were selected to **correspond to** the **age and gender of the avatars** (e.g., had a North American English or international English accent)

- Language used **exemplified business telephone conversations** in terms of grammar, vocabulary, and formality

- Visually, the avatars were designed to have **relaxed body language and postures** to represent a less formal type of communication
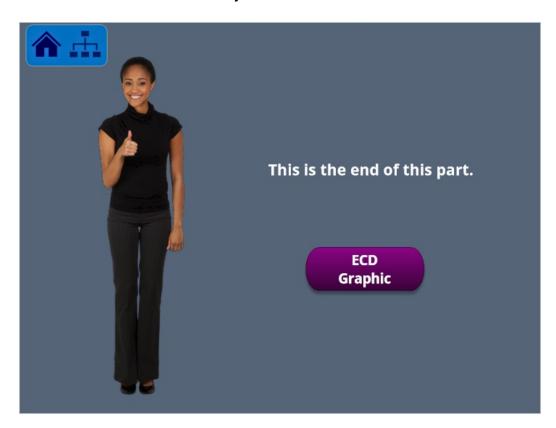
6.23 Bid (III)

6.24 Bid (IV)

6.25 Bookend: Domain Analysis

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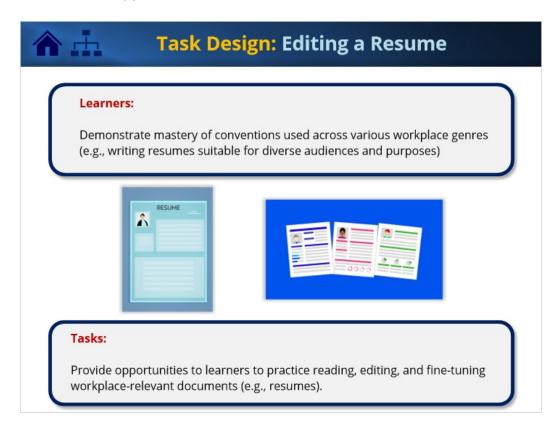
6.26 Bookmark: Vignette 2

6.27 Resume (I)

Task Design: Editing a Resume

Learners:

Demonstrate mastery of conventions used across various workplace genres (e.g., writing resumes suitable for diverse audiences and purposes)

Tasks:

Provide opportunities to learners to practice reading, editing, and fine-tuning workplace-relevant documents (e.g., resumes).

6.28 Resume (II)

6.29 Resume (III)

Diagnostic Feedback

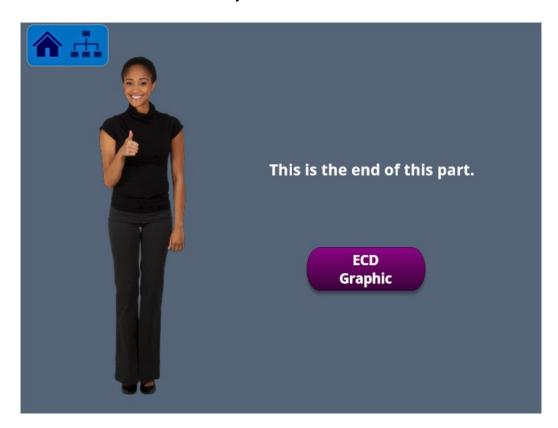| Test-taker Recommendation	Diagnostic Feedback
U of Centerville B.S in Business Finance	That's incorrect. It's important to list the higher levels of education. Try again.
Courses in Strategy Development; Purchasing Management; Corporate Management; Business Communication; Financial Accounting	That's incorrect. If the courses are related to the business, they can appear on the resume. Try again.
Plovdiv Polytechnic High School, Plovdiv, Bulgaria. Certificate of Merit*	That's correct! High school degrees should be removed from resumes once a higher level of education is attained.
Nothing should be deleted	That's incorrect, try again

Note how the feedback takes into account the **professional work / business culture** into which the task is embedded

6.30 Resume (IV)

Scoring Design

- A **sociocognitive perspective** has implications for the **scoring rules and scoring criteria** for evaluating and interpreting **student performances** in relation to the **targeted constructs**

- What is **correct/incorrect** is to be determined based on the **purpose of the assessment** and the **populations assessed**

- The degree to which **differences in behavioral patterns are errors** thus need to be examined when **providing a score or giving feedback**
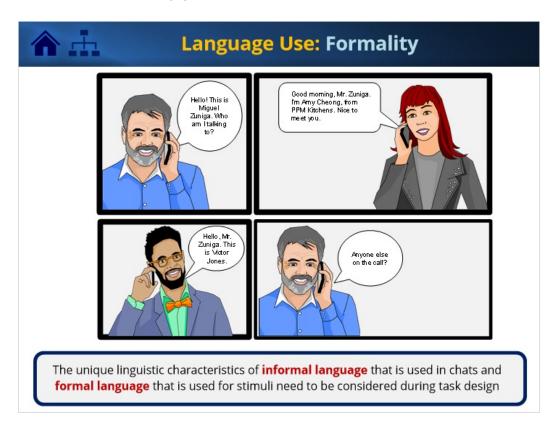
6.31 Bookend: Domain Analysis

6.32 Bookmark: Vignette 3

6.33 Conversations (I)

6.34 Conversations (II)

6.35 Conversations (III)

Language Use: Vocabulary

In addition, in an **industry-specific assessment of communication** (e.g., oil and gas, health sciences, or finance), small-team collaborations may include **domain-specific vocabulary and moves**.

6.36 Conversations (IV)

Scoring Design

- **Literature review of the use of business English** conducted to identify traditional discourse in English business communications

Results were used to:

- **Design examples of English** the avatars used in their communications

- **Determine scoring criteria** (the types of responses considered correct and the type of immediate avatar-delivered feedback they received).

- **Allow variations in the use of language** due to variability in language use across businesses ("dear X" or "hello X")

Scoring Rubric

Scoring Rubric (Slide Layer)

Scoring Rubric

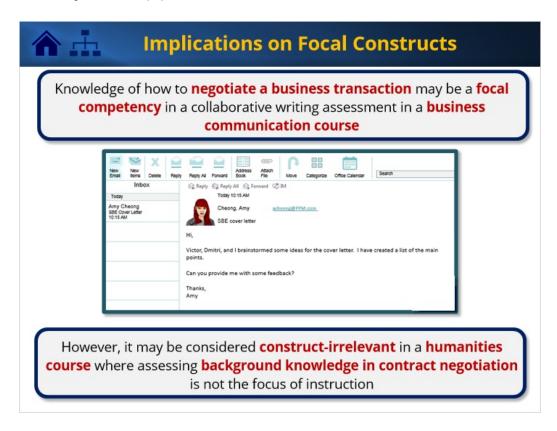| Score	Response Description
3	Candidate/Learner's use of business communication conventions is effective. • Clear understanding of the C/L's role within the organization (e.g., on a team, within a business hierarchy). • Clear understanding of C/L's relationship to others outside his or her own organization (e.g., client/vendor/advisor/governmental or other authorities).
2	Candidate/Learner's use of business communication conventions is partially effective. • Some aspect(s) of sociolinguistic appropriateness (e.g., politeness, register) may be missing. • Some aspects of C/L's role in respect to audience may be misunderstood.
1	Candidate/Learner's response demonstrates a lack of understanding of appropriate business communication conventions. • The response may not be relevant to the task. • A lack of sociolinguistic appropriateness (e.g., politeness, register) may make the response ineffective.
0	No response OR no English in the response. There may be keystroke characters that convey no meaning.

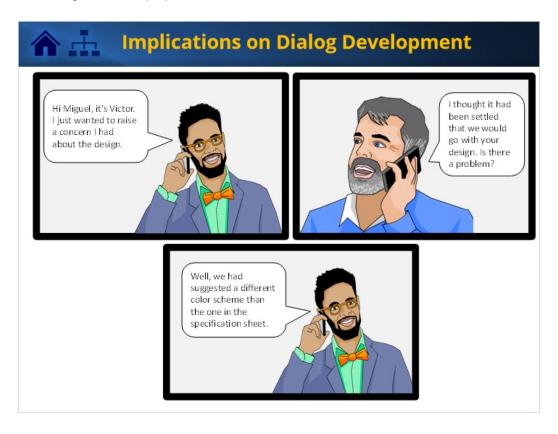### 6.37 Bookend: Domain Analysis

6.38 Bookmark: Additional Reflections
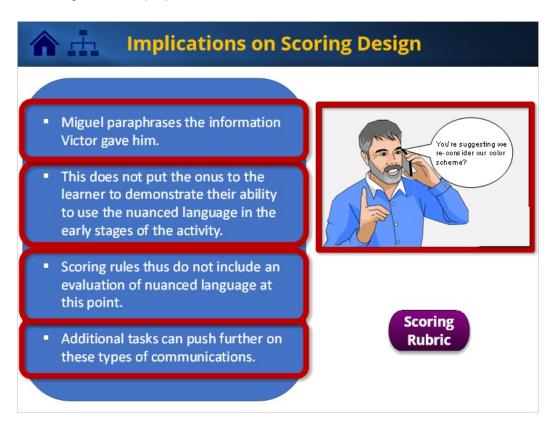
6.39 Reflections (II)

6.40 Reflections (III)

6.41 Reflections (IV)

Scoring Rubric (Slide Layer)

Scoring Rubric

Score	Response Description
3	Candidate/Learner's use of business communication conventions is effective. • Clear understanding of the C/L's role within the organization (e.g., on a team, within a business hierarchy). • Clear understanding of C/L's relationship to others outside his or her own organization (e.g., client/vendor/advisor/governmental or other authorities).
2	Candidate/Learner's use of business communication conventions is partially effective. • Some aspect(s) of sociolinguistic appropriateness (e.g., politeness, register) may be missing. • Some aspects of C/L's role in respect to audience may be misunderstood.
1	Candidate/Learner's response demonstrates a lack of understanding of appropriate business communication conventions. • The response may not be relevant to the task. • A lack of sociolinguistic appropriateness (e.g., politeness, register) may make the response ineffective.
0	No response OR no English in the response. There may be keystroke characters that convey no meaning.

Back

6.42 Reflections (I)

Sociocognitive Perspective

A sociocognitive perspective has an effect on the design of **language, visuals,** and **relationships.**

- Actors reading the avatars' scripts were selected to **correspond to** the **age and gender of the avatars** (e.g., had a North American English or international English accent)

- Language used was **prototypical of business telephone conversations** in terms of grammar, vocabulary, and formality

- Visually, the avatars were designed to have **relaxed body language and postures** as they would during a phone conversation

6.43 Module Cover (END)