Title of Presentation

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VAET Presentation Topics

Versant Aviation English Test – a fully machine-scored test of aviation English

- Background on Ordinate and Ordinate's spoken language assessment technology
- Test overview
- How test aligns with ICAO guidelines
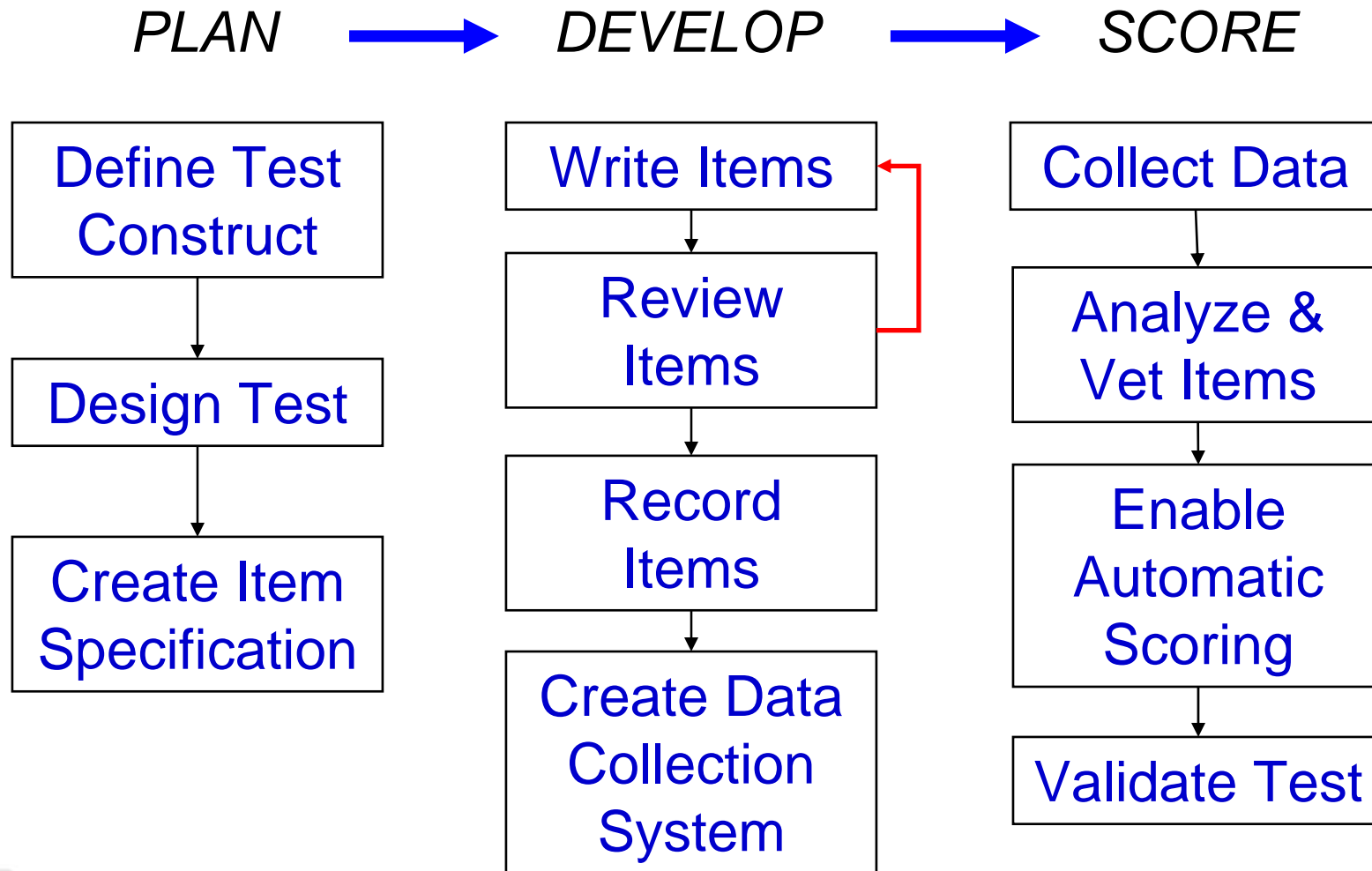- How we will validate VAET

Ordinate Background

- **Leader in machine-scored spoken language testing since 1996**

- **Other published tests:**
  - English
    - Versant for English
    - Versant for English – School Edition
    - Versant Call Center Screener
  - Versant for Spanish
  - Toets Gesproken Nederlands (Dutch)
  - Arabic (in development)

Development Team

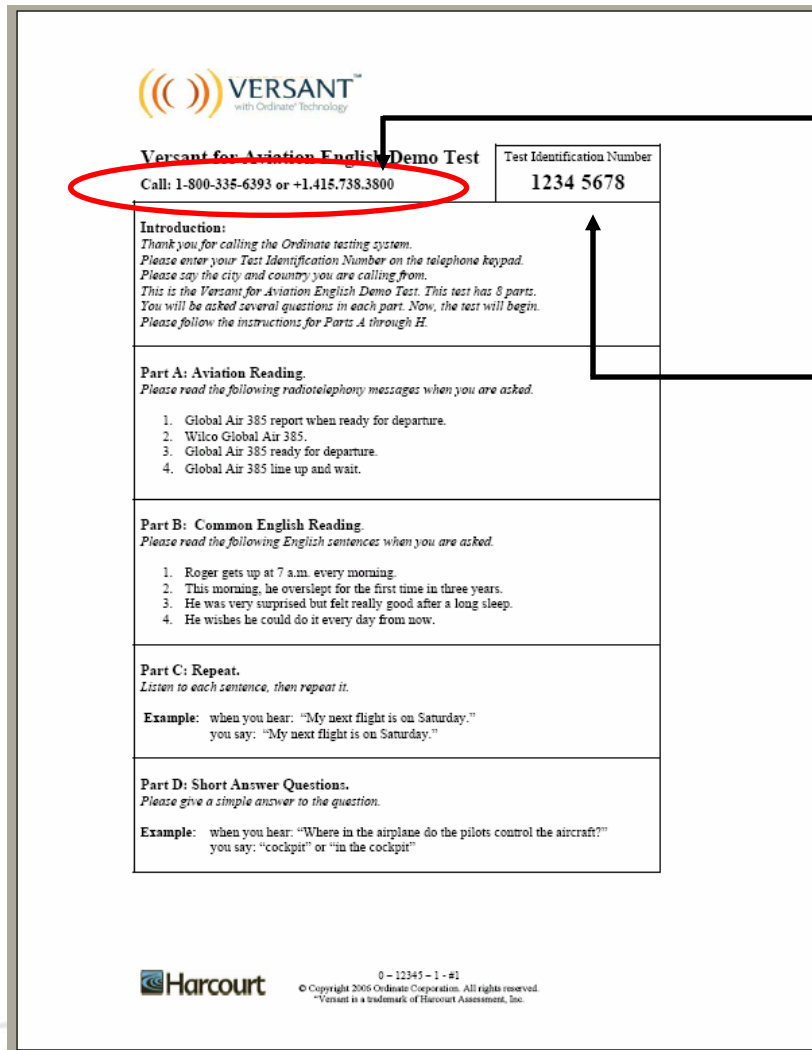| Education	Experience
Ph.D., Linguistics	University professor specializing in applied linguistics and language testing, especially in the aviation domain
Ph.D., Psycholinguistics	10+ years of experience developing and conducting research on second/foreign language tests
M.A., TESOL	4+ years of experience developing and conducting research on second/foreign language tests
Ph.D., Psychology	3 years of experience developing and conducting research on second/foreign language tests
Occupation	Experience
Program manager for aviation language training, ICAO committee member	25 years of experience in human resource development and language training
Consultant for ICAO English language competency project	30+ years of experience as Air Traffic Control Officer in the UK and Australia
Pilot	10+ years of experience as pilot in the UK
International air traffic training program manager	10+ years of experience in international air traffic training
Policy, plans, and program officer for government English language center	25+ years experience developing curriculum for aviation English language training

Development Process

PLAN → DEVELOP → SCORE

PLAN	DEVELOP	SCORE
Define Test Construct	Write Items	Collect Data
Design Test	Review Items	Analyze & Vet Items
Create Item Specification	Record Items	Enable Automatic Scoring
	Create Data Collection System	Validate Test

Data Collection

- **Period: September 2006 – February 2007**

- **Participants: 1,250 professionals**
  - Mostly pilots, ATCs
  - Natives (about 480)
  - Non-natives (about 770)
  - 90 different countries (by birth place)
  - 50 different languages (by L1)

Automatic Administration

Telephone Number to the System

Test Identification Number

Process flow

1. Proctor downloads test from web site and prints out

2. Candidate reviews test sheet & instructions (5min)

3. Candidate calls toll free number on test sheet

4. Candidate keys in unique (8-digit) Test Identification Number

5. Candidate takes test (~30min)

6. Candidate/Proctor retrieves score from web site (within minutes after taking the test)

Test Sections
Part A: Reading (Aviation Phraseology)
Part B: Reading (Common English)
Part C: Repeat
Part D: Short Answer Questions
Part E: Readbacks
Part F: Corrections and Confirmations
Part G: Story Retellings
Part H: Open Questions

AVIATION READING

Please read the following radiotelephony messages when you are asked.

1. World Air 891, request descent.

COMMON ENGLISH READING

Please read the following English sentences when you are asked.

1. The Lee sisters are flying to Seoul this summer for a family reunion.

REPEAT

Listen to each sentence, then repeat it. For example,

when you hear,   *"My next flight is on Saturday."*

you say,   *"My next flight is on Saturday."*

SHORT ANSWER QUESTIONS

Please give a simple answer to the question. For example,

when you hear: *"Where in the airplane do the pilots control the aircraft?"*

You say,   *"cockpit" or "in the cockpit".*

READBACK

You will hear several spoken radiotelephony messages. Say an appropriate readback after each one. For each question, a call sign is printed on the test sheet for your information. Use this call sign to say an appropriate readback. For example, you see a call sign on the test sheet.

When you hear: *"Cessna two niner, exit taxiway Hotel.",*

one possible answer is: *"Exit taxiway Hotel, Cessna two niner."*

or another possible answer is: *"Exiting taxiway Hotel, Cessna two niner."*

Coastal Air 315

CORRECTIONS AND CONFIRMATIONS

In this task, you will hear a radiotelephony exchange between two speakers, Speaker 1 and Speaker 2. The speakers are a pilot and an air traffic controller, but not necessarily in that order. Speaker 1 speaks first, then Speaker 2 responds next. If Speaker 2's response includes wrong information, correct that information. If Speaker 2's response includes a question or request, respond appropriately. For each question, a call sign is printed on the test sheet for your information. For example, you see a call sign on the test sheet. You will hear Speaker 1's message, then immediately hear Speaker 2's response to the message.

East Global Air 295

When you hear this exchange, one possible answer is:

> *East Global Air 295, negative, contact Radar 122.15.*

OR another possible answer is:

> *East Global Air 295, I say again, 122.15.*

Charlie Romeo 4013

STORY RETELLING

Now, you will hear three stories. After each story, you will have 30 seconds to retell it. Retell the story as best you can in your own words in English.
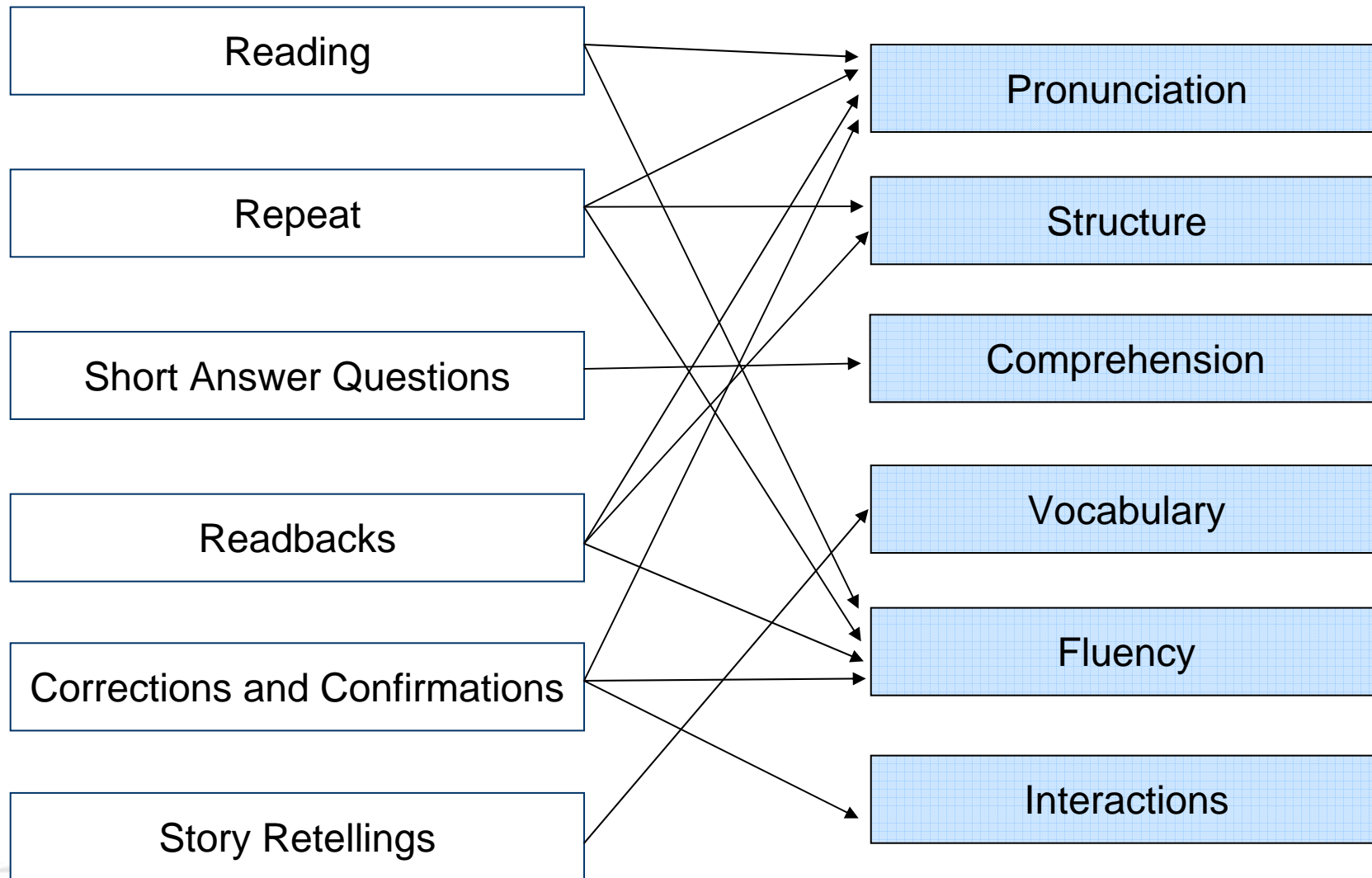
OPEN QUESTIONS

You will hear two questions. You will have 30 seconds to answer each question. Each question will be spoken twice. When you hear this beep, you will have 30 seconds to answer. You will hear another beep at the end of the 30 seconds.
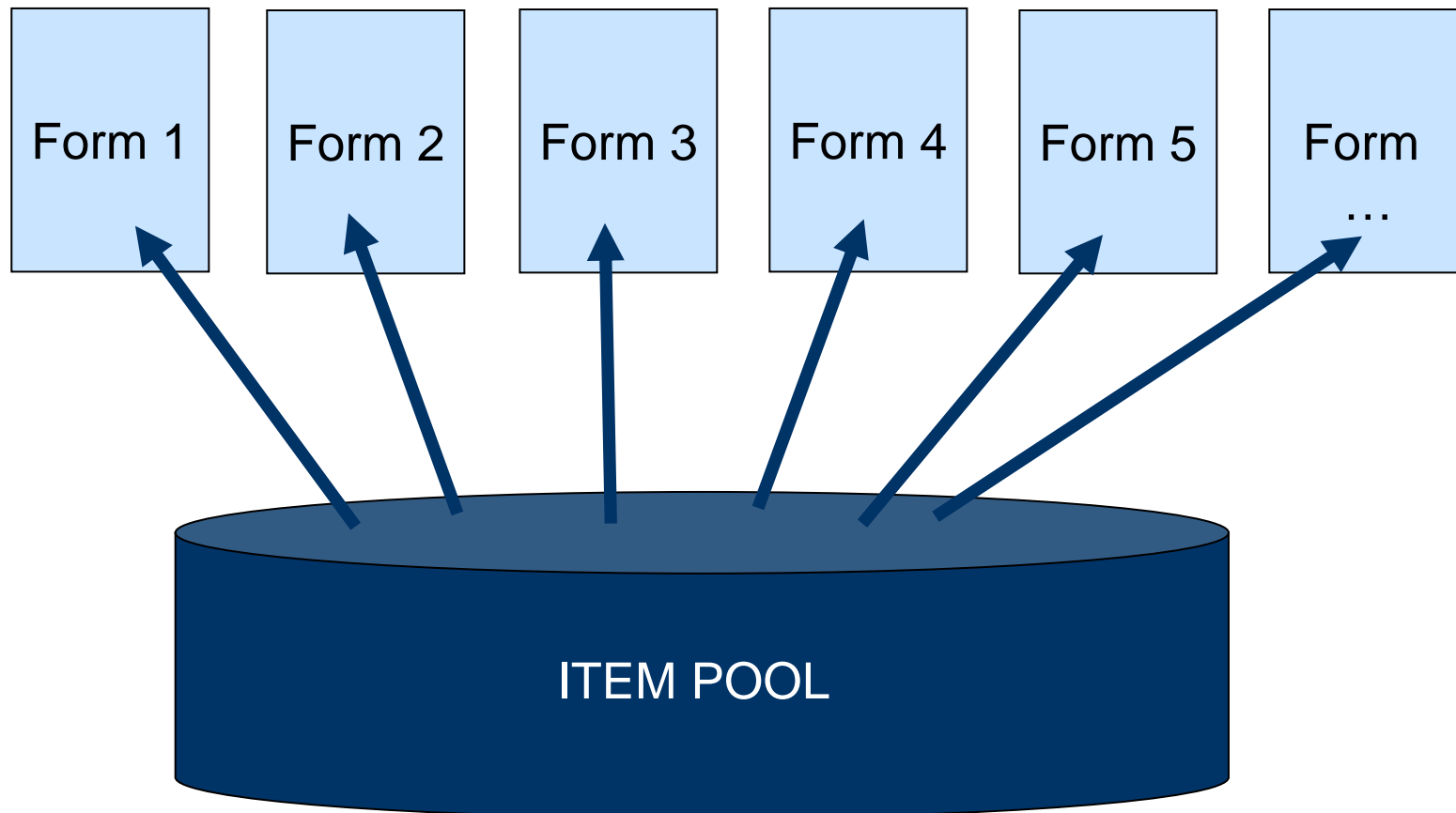
Scoring Logic

Reading	Pronunciation
Repeat	Structure
Short Answer Questions	Comprehension
Readbacks	Vocabulary
Corrections and Confirmations	Fluency
Story Retellings	Interactions

Test Security

Secure – resistant to cheating and coaching

Form 1 Form 2 Form 3 Form 4 Form 5 Form …

ITEM POOL

Reliability

Consistency of measurement
Split-half Reliability

Score Types	Versant for English	Versant for Spanish
Overall	0.97	0.96
Sentence Mastery	0.93	0.96
Vocabulary	0.88	0.77
Fluency	0.95	0.94
Pronunciation	0.97	0.95

Content Validity

Are the items in the test relevant to the construct?

- Covers aviation phraseology

- Covers common English in the aviation domain

- Covers routine and non-routine situations

Construct Validity

Can the test distinguish groups with and without the ability being measured?
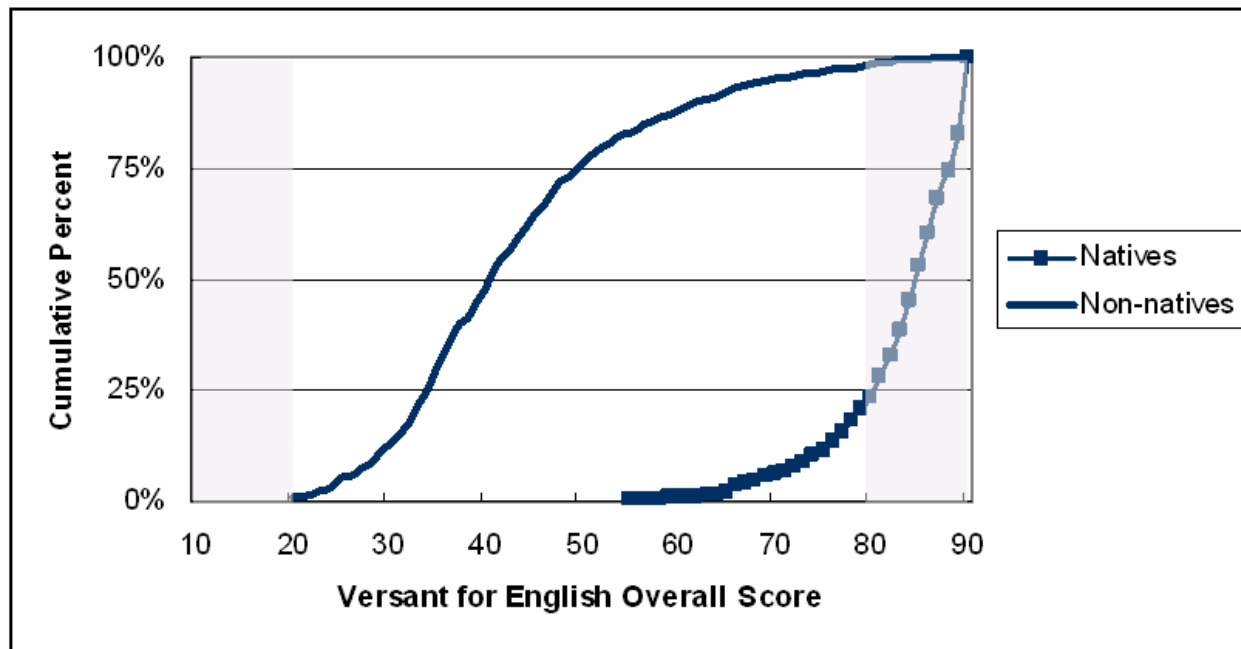
Concurrent Validity

Do the scores correlate with other measures of the same construct?

Sample Tests Available

ICAO Guidelines

❄ **Test evaluates speaking and listening**

❄ **Development team is qualified**

❄ **Development process is validated**
  - All tasks and items reviewed by independent experts
  - Test instructions reviewed by stakeholders

❄ **Test addresses aviation work-related topics**

❄ **Test covers ICAO phraseology and plain English**

❄ **Test assesses all 6 six language skills**

❄ **Test is secure**

❄ **Test is reliable, valid and practical**

❄ **All sessions are recorded and stored securely**

❄ **Sample test is available**