



Assessing ICAO English Levels with the *Versant*TM Aviation English Test



About Ordinate

- The leading provider of technology and services for testing spoken language.



- Founded in 1996 by two Stanford professors
- Created the patented Ordinate® Testing System
- Wholly-owned subsidiary of Harcourt Assessment
 - Harcourt Assessment → which is part of Reed Elsevier

Ordinate Experience, Expertise

Corporate	
<p>Needs:</p> <ul style="list-style-type: none"> Recruiting selection Leadership programs Training placement 	<p>Sample customers:</p> <ul style="list-style-type: none"> Dell • P&G Accenture IBM • BellSouth UK Network Rail Malaysia Airlines UAE civil aviation

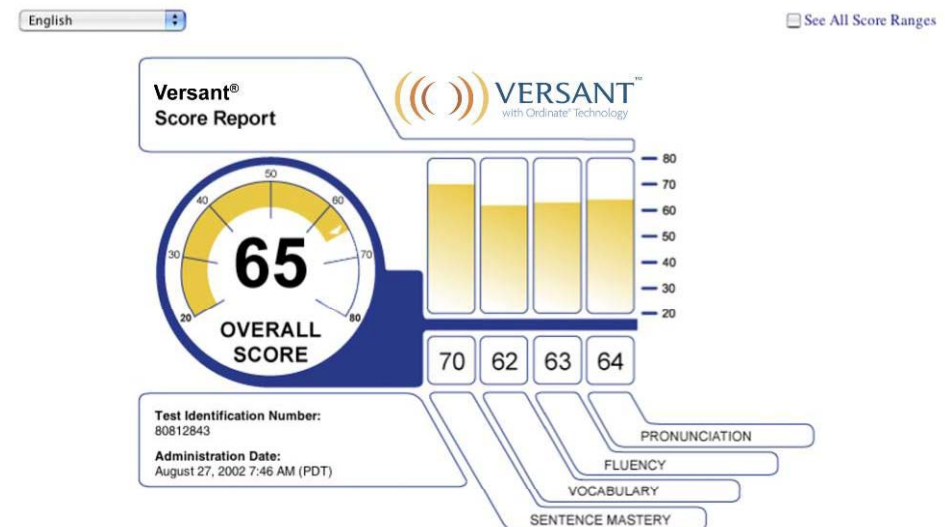
Schools	
<p>Needs:</p> <ul style="list-style-type: none"> Teacher/TA certification ELL placement Oral reading fluency 	<p>Sample customers:</p> <ul style="list-style-type: none"> Dallas Independent School District Univ. of Connecticut Tsinghua University Kobe University Waseda University

Government	
<p>Needs:</p> <ul style="list-style-type: none"> Employment screening Language certification Placement into training 	<p>Sample customers:</p> <ul style="list-style-type: none"> US Dept of Education Dutch Immigration Ministry US Dept of Homeland Security – Border Patrol US DOD – Defense Language Institute

Language and Test Specialists	
<p>Needs:</p> <ul style="list-style-type: none"> Speech recognition Language processing Speaking tests 	<p>Sample customers:</p> <ul style="list-style-type: none"> ACT WorkKeys ALC Japan Pearson • Yoons Berlitz • ETS CTB/McGraw-Hill Thomson Heinle

Versant™ spoken language tests

- Recognized leader for testing spoken language
- Taken over the phone or on a computer
- Automatically scored
- Proven to be valid and reliable
- Tests of spoken:
 - English
 - Spanish
 - Dutch
 - Arabic (*in dev*)



Versant™ Aviation English Test (VAET)



Overview of the Test

VAET Overview

- ✓ Developed under a Cooperative Research and Development Program with The FAA
- ✓ Validation Report published documenting Validity and Reliability sufficient to satisfy ICAO requirements
- ✓ Can be taken by phone or computer 24x7
- ✓ Scores available within minutes
- ✓ Designed to support both training and certification programs

Relevant: VAET Content

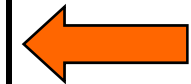
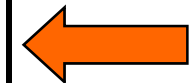
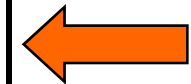
aviation
English



Section	Item Type
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



general
English



Relevant: VAET Sample

PART E: 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:

The test sheet shows a call sign: **Cessna 29**

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."*

Sample:

Global Air 295  **LISTEN**

Relevant: VAET Sample

PART F: 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:

The test sheet shows a call sign:

East Global Air 295

When you hear:

East Global Air 295, contact radar 125.

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.

Sample:

Gulf ABCJ

 LISTEN

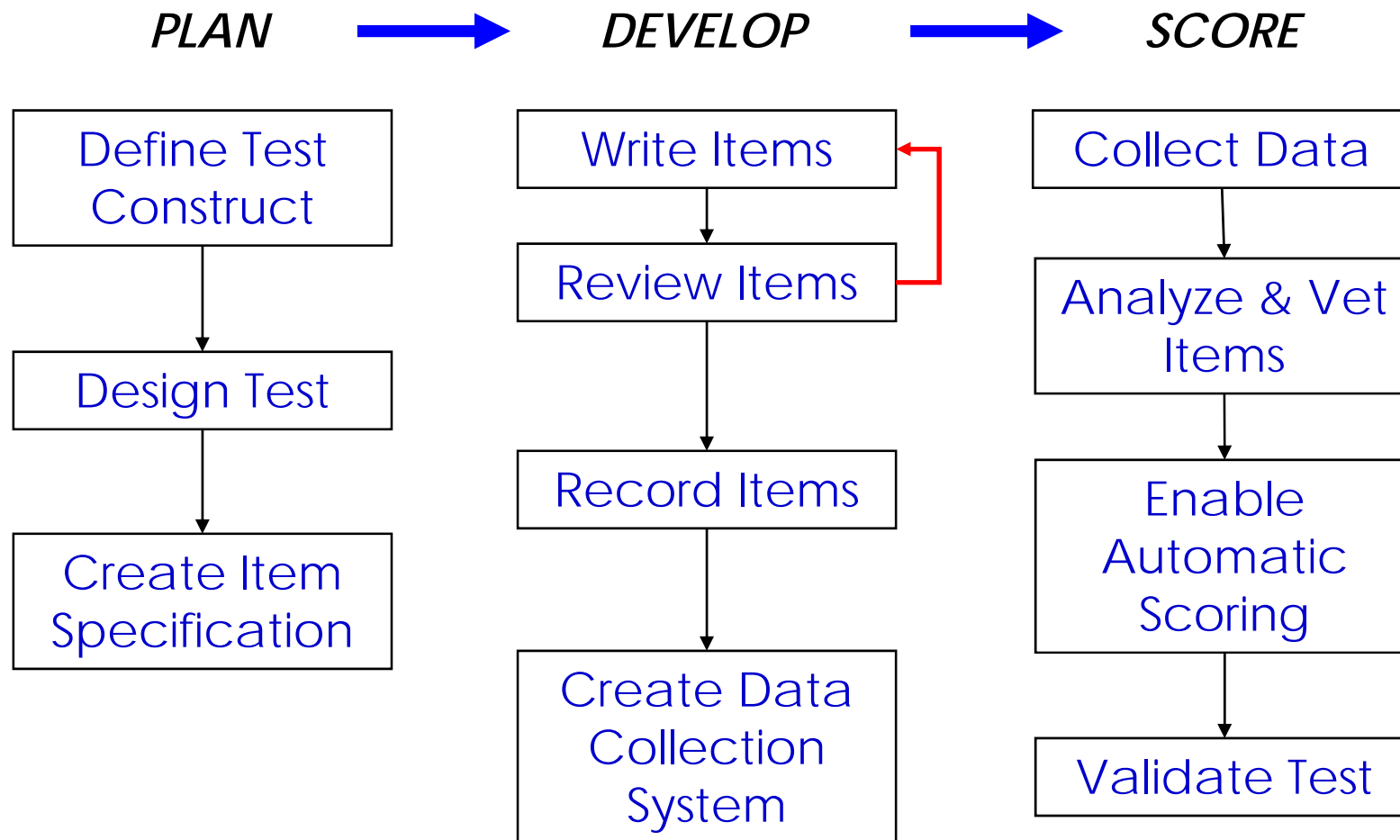
Two Versions of VAET Available Now

	Certification	Practice Placer
Purpose	The high stakes test used to assess the ICAO English language proficiency language level for official CERTIFICATION purposes. The test must be proctored, with appropriate test-taker identification and test security.	A low stakes version of the test that can be used: <ol style="list-style-type: none"> 1. to assess ICAO level and place individuals into the right level for training. 2. to allow test-takers to practice for the Certification test. 3. to use as an instructional activity within training.
Length	~25 to 30 minutes 78 questions	~15-20 minutes 54 questions
Content	Aviation Reading, Common English Reading, Repeats, Short Answer Questions, Readback, Corrections and Confirmations, Story Retelling, Open Questions	Aviation Reading, Common English Reading, Repeats, Short Answer Questions, Readback, Corrections and Confirmations, Story Retelling
Scoring	Most precise score, with reliability statistics based on field studies. Will produce the final ICAO language level, with a precise point score on a 10-to-70 point scale.	Estimate of what final score may be within a confidence range. Will produce an estimate of the current ICAO language level only. No point score is provided.
Security	Anonymous test IDs, secure test response capture, encrypted storage, secure reporting., Randomized test question generation	Anonymous test IDs, secure test response capture, encrypted storage, secure reporting. Uses a fixed form without random questions.

Robust: Development Expertise

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 and program officer for government English language center	25+ years experience developing curriculum for aviation English language training

Development Process



Field Trials

- Period: September 2006 – February 2007
- Participants: 1,250 professionals
 - Pilots and air traffic controllers
 - Both native and non-native English speakers
 - Native English speakers (about 38%)
 - Non-native English speakers (about 62%)
 - 90 different native countries (by birth place)
 - 50 different native languages (by L1)
- ***Results detailed in published Validation Report document which is available now***

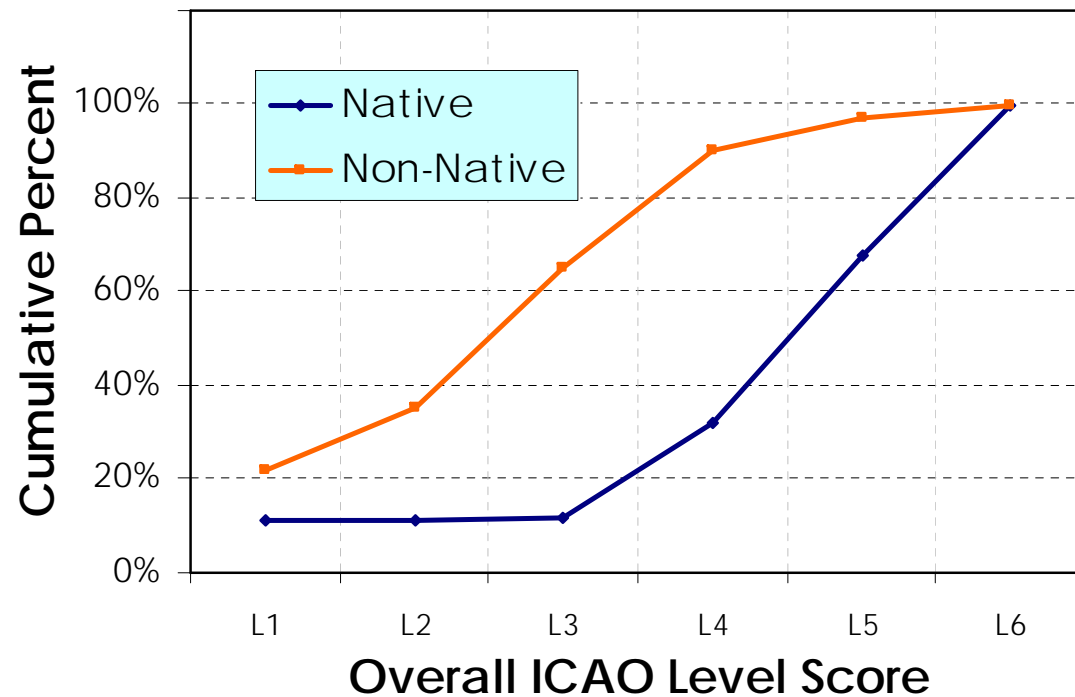
Content Validity

- Are the items in the test relevant to the construct?
 - VAET covers aviation phraseology
 - VAET covers common English in the aviation domain
 - VAET covers routine and non-routine situations

VAET Construct Validity

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

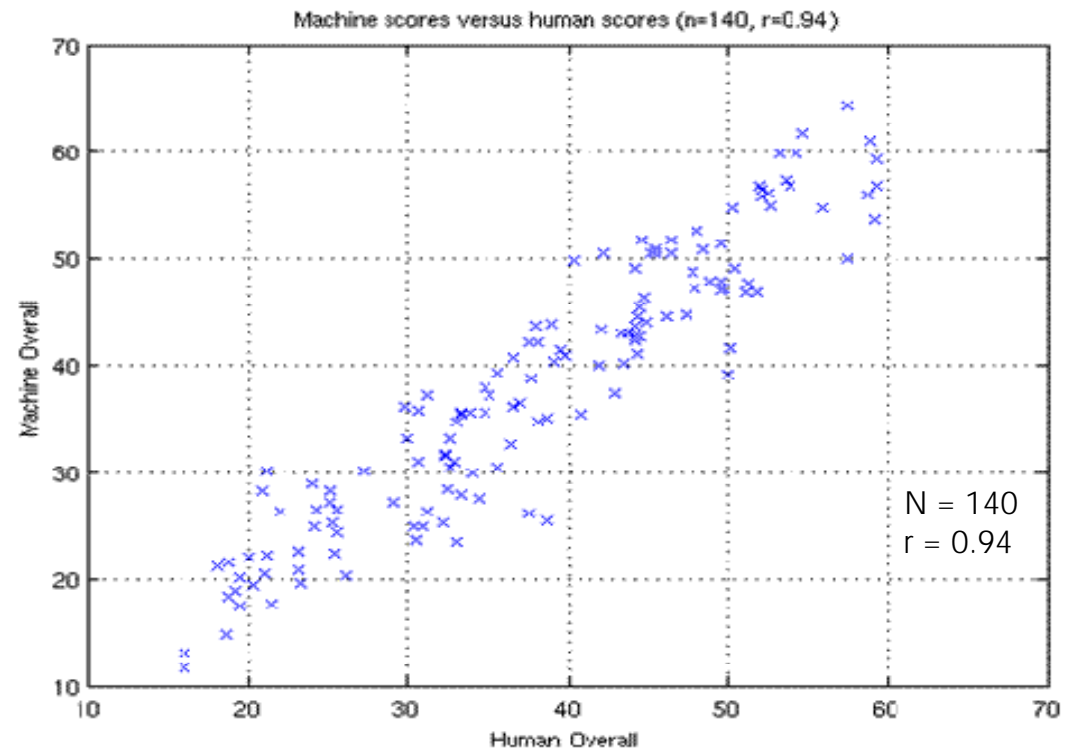
– **YES:** VAET distinguishes between native and non-native English speakers



Concurrent Validity

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

– **YES:** VAET scores correlate highly with human ratings



VAET Reliability

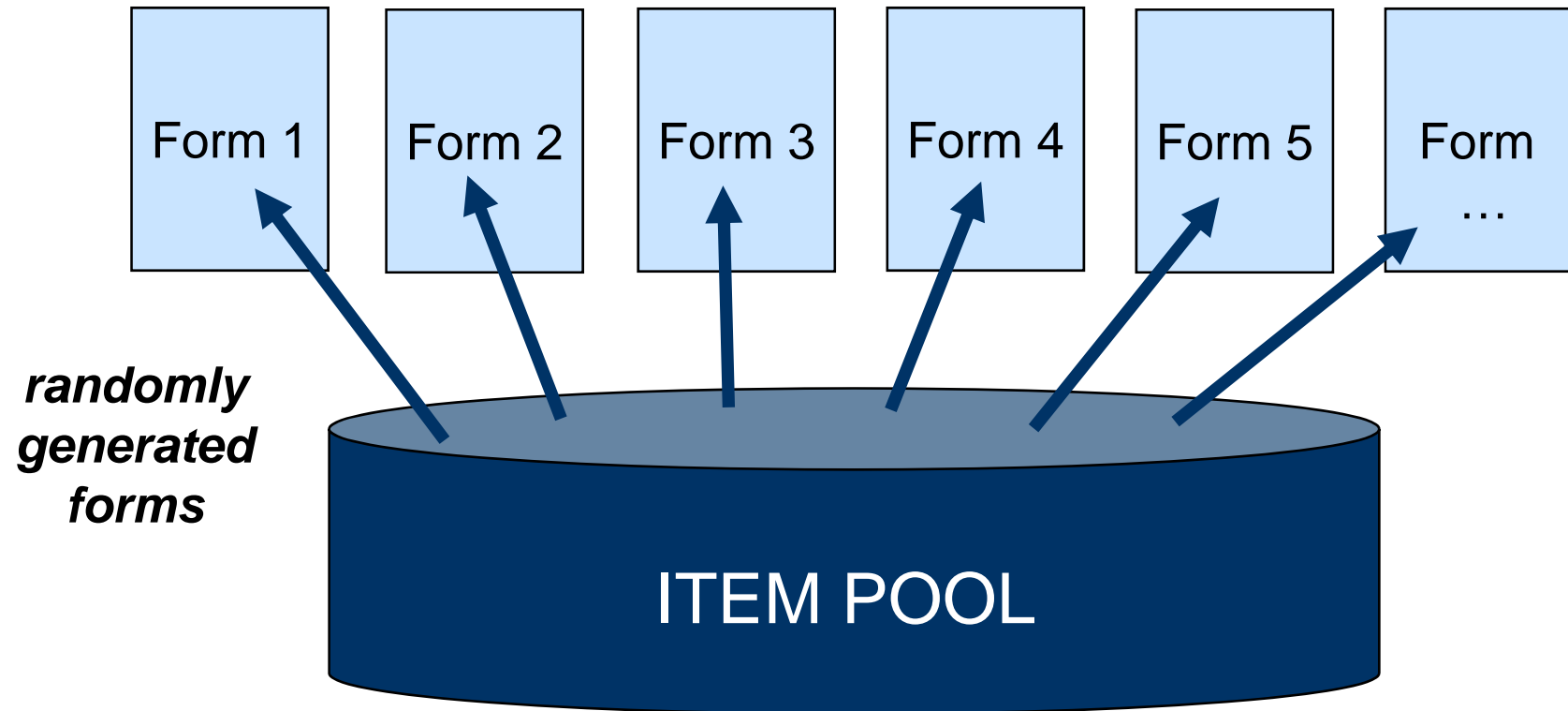
- Reliability = consistency of measurement

Split-Half Reliability by Score Type	VAET	Aviation human rated	Versant for English
Structure‡	0.82	0.84	0.93
Vocabulary	0.89	0.89	0.88
Fluency	0.95	0.97	0.95
Pronunciation	0.97	0.98	0.97
Comprehension	0.88	0.87	n/a
Interactions	0.88	0.89	n/a
Overall FINAL	0.93	0.92	0.97

‡ The "Structure" sub-skill in VAET is similar to the "Sentence Mastery" sub-skill in Versant for English

Reliable: Test Security

- Secure – resistant to cheating and coaching



Efficient: Anytime, Anywhere

- Tests delivered in a secured, proctored location by telephone or computer
- Test administration is easy
 - Instructions and test papers are created for administrator when tests are ordered
 - Administrator running the proctored location provides both to the test-taker when ready to begin
 - No complicated scheduling is required – the test administrator can have the test-taker complete the test at any time, from any authorized location



Versant Aviation English Demo Test Call: 1-800-335-6393 or +1.415.738.3800	Test Identification Number 2872 0619
<p>Introduction: <i>Thank you for calling the Ordinate testing system. Please enter your Test Identification Number on the telephone keypad. Now, please say the city and country you are calling from. This is the Versant for Aviation English Demo Test. This test has 8 parts. You will be asked several questions in each part. Now, the test will begin. Please follow the instructions for Parts A through H.</i></p>	
<p>Part A: Aviation Reading. <i>Please read the following radiotelephony messages when you are asked.</i></p> <ol style="list-style-type: none"> 1. World Air 891, request descent. 2. World Air 891, maintain flight level 280 expect descent shortly. 3. Maintaining flight level 280, World Air 891. 4. World Air 891, descend flight level 120. 	
<p>Part B: Common English Reading. <i>Please read the following English sentences when you are asked.</i></p> <ol style="list-style-type: none"> 1. Our flight didn't start very well. 2. First there were some minor mechanical issues that needed to be resolved. 3. Then all outgoing flights were delayed because of the weather conditions. 4. When we finally took off hours later, it was a smooth flight all the way. 	
<p>Part C: Repeat. <i>Listen to each sentence, then repeat it.</i></p> <p>Example: when you hear: "My next flight is on Saturday." you say: "My next flight is on Saturday."</p>	
<p>Part D: Short Answer Questions. <i>Please give a simple answer to the question.</i></p> <p>Example: when you hear: "Where is the airplane do the pilots control the aircraft?" you say: "cockpit" or "in the cockpit".</p>	

Efficient: Simple Test-Taker Process



1. Test-taker receives test paper from proctor and reviews before starting



2. Candidate accesses the secure Ordinate® Testing System (telephone or computer)

12345678

3. Candidate enters unique Test Identification Number (TIN)



4. Candidate responds to the test questions or prompts to complete the test

Efficient: Automated Scoring

- Once the test-taker submits all responses to complete the test, it is sent to the patented Ordinate® Scoring System
- The test is automatically scored and usually available within minutes after the completed test is received

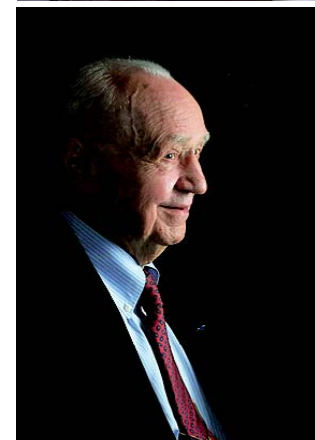
Versant[™] Aviation English Test (VAET)



ICAO Compliant Testing

About Jeppesen

- Over 70 years of industry experience
- Delivers essential information and optimization solutions to improve the efficiency of air, sea and rail operations around the globe.
- Fifteen Years of Commercial Operations Product Training
 - In 1999 Jeppesen developed theory training courses to supplement product training (ETOPS, CNS/ATM, TERPS/PANS OPS, etc).
 - Numerous online and CBT training programs currently available
- Subsidiary of Boeing Commercial Aviation Services
- Jeppesen's ICAO compliant aviation English training and testing are the authorized solutions for Boeing

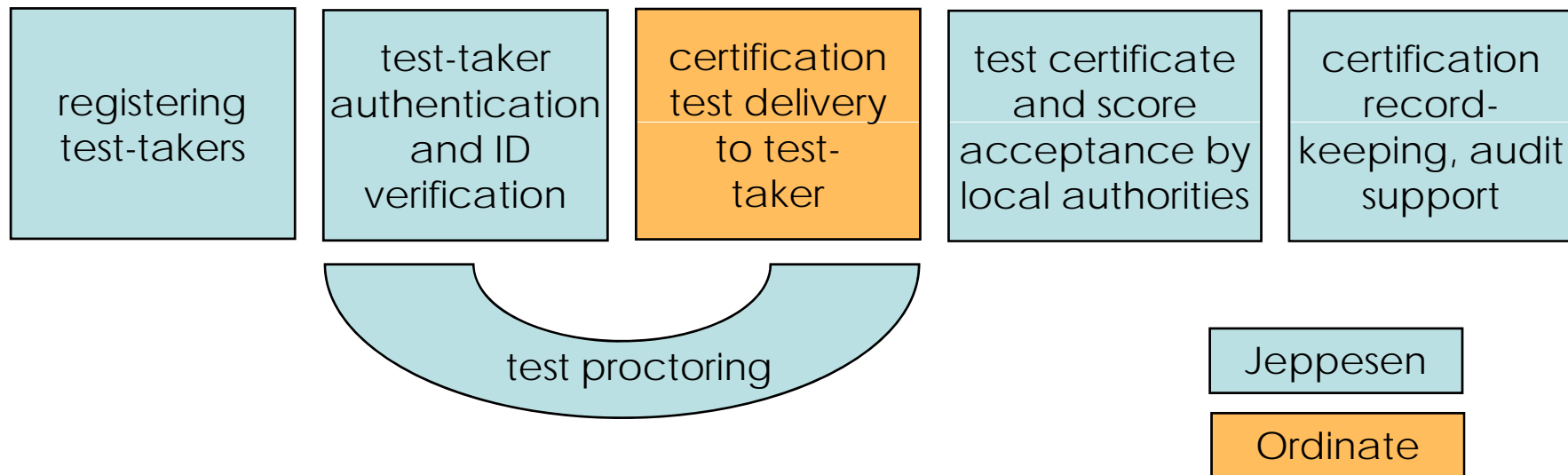


 **JEPPESEN**[®]
Making Every Mission Possible

VAET – part of Jeppesen Solutions

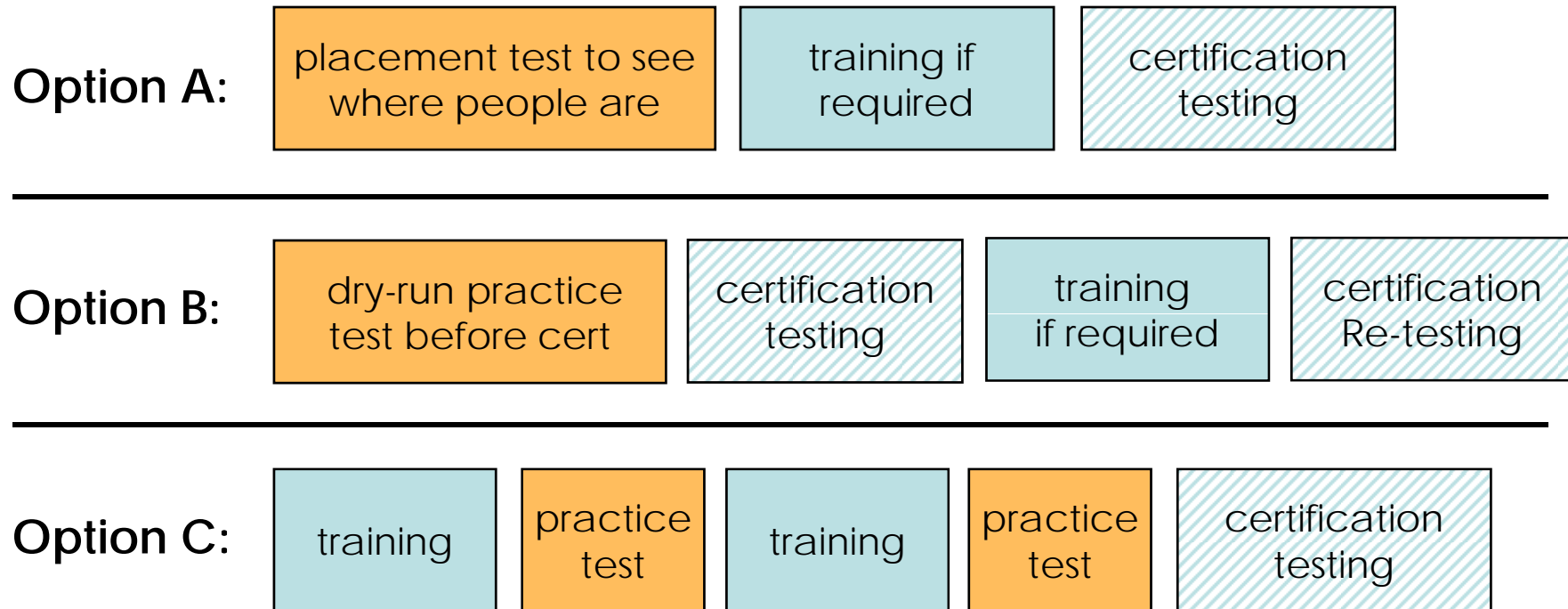
1. Full ICAO Language Certification Solutions

- for Airline, Corporate and General Aviation
- tailored for pilots and air traffic controllers



VAET – part of Jeppesen Solutions

2. Preparation for ICAO Language Certification



Jeppesen

Ordinate

Versant[™] Aviation English Test (VAET)



Summary

VAET Meets ICAO Requirements

ICAO Checklist for Aviation English Testing

- ✓ 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 or general English
- ✓ Test assesses all 6 ICAO-specified language skills
- ✓ Test is secure
- ✓ Test is reliable, valid and practical
- ✓ All sessions are recorded and stored securely
- ✓ Sample and practice tests are available

Get a Free Sample Test

- Sample test
- VAET Validation Report
- Larry_rothenberg@Harcourt.com



Questions?