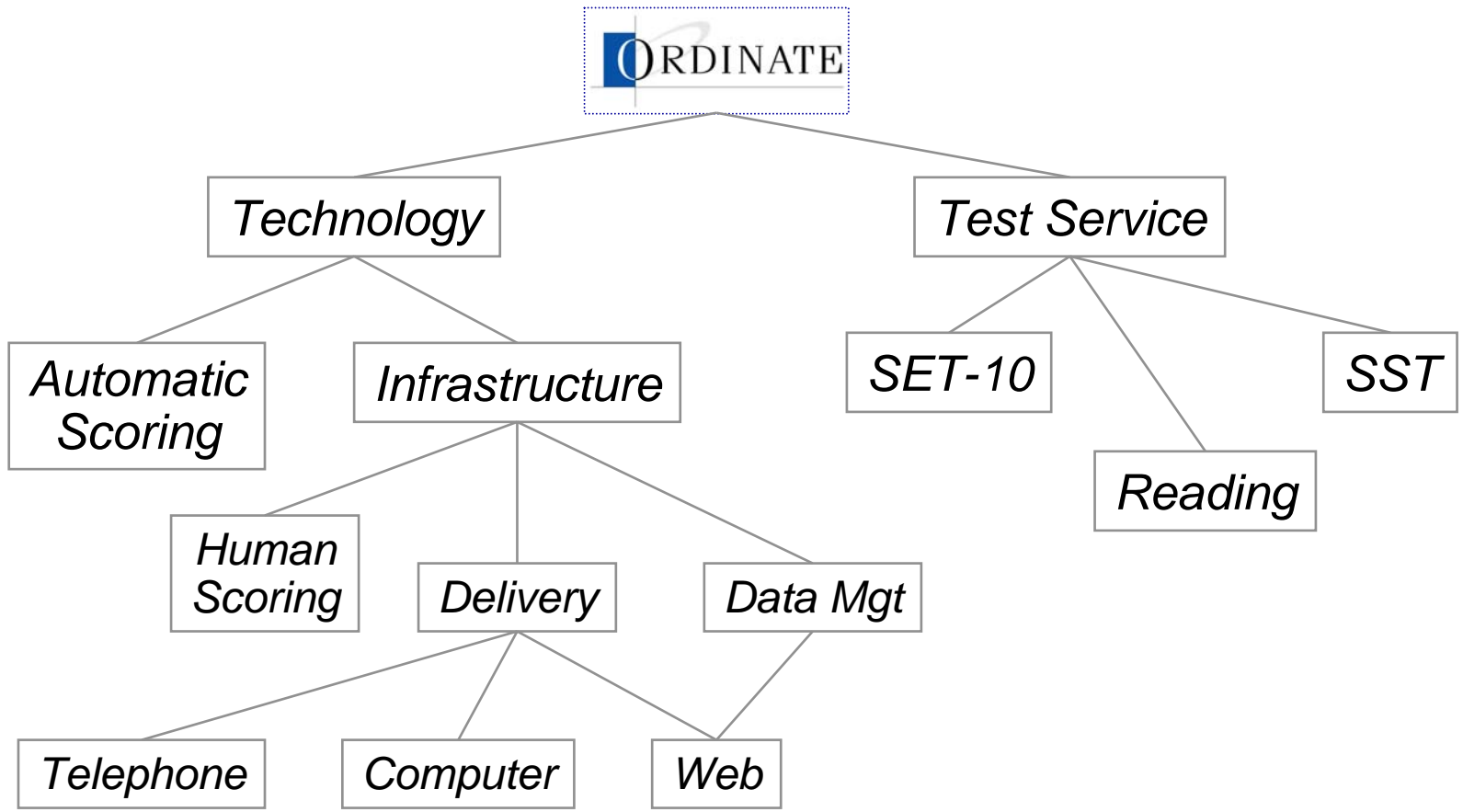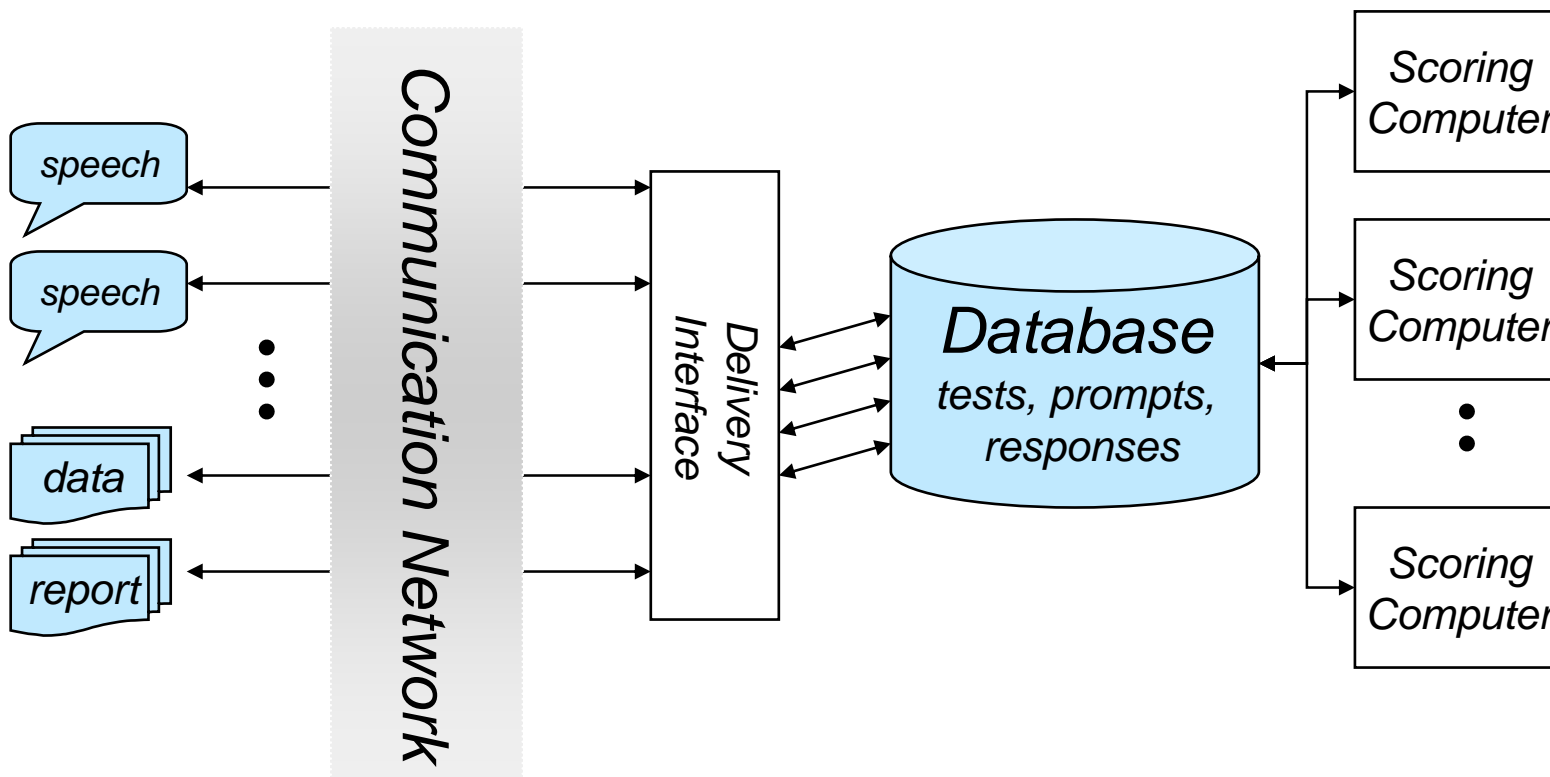# Spoken Language Testing: Ordinate's SET-10

TESOL 2004, Long Beach

Jared Bernstein
Ordinate Corporation
Menlo Park, California

Ordinate Technology & Services

Testing Service System

Spoken English Tests

SET-10: An efficient, reliable ESL proficiency test that measures listening and speaking performance in integrated tasks.

Junior SET (I, II): SET forms for early learners, with more graphic support and spoken instructions in the local language.

SST: Spoken Spanish Test (*others on the way*)

SET Tests

Construct: *facility in spoken English* – the ability to understand spoken English and speak appropriately in response at a native-like pace on everyday topics.

Benefits:

Simple administration at any location

Fair, accurate scores

More reliable (consistent) than human judgment

Relevant to practical language use

Precision for formative progress tracking

Test Format:

Test number (PIN)

Part A: reading   **8 items**

Part B: repeat Ss   **16 items**

Part C: short Qs   **24 items**

Part D: build Ss   **10 items**

Part E: open Qs   **3 items**

ORDINATE **PhonePass**

Call: 1-800-444-7277

Test Identification Number
8607 2171

Introduction:
Thank you for calling Ordinate's PhonePass system.
Please enter your Test Identification Number on the telephone keypad.
Now, please say your name.
Now, please follow the instructions for Parts A through E.

Part A: Reading. *Please read the sentences as you are instructed.*

1. Traffic is a huge problem in Southern California.
2. The endless city has no coherent mass transit system.
3. Sharing rides was going to be the solution to rush-hour traffic.
4. Most people still want to drive their own cars, though.

5. Larry's next door neighbors are awful.
6. They play loud music all night when he's trying to sleep.
7. If he tells them to stop, they just turn it up louder.
8. He wants to move out of that neighborhood.

9. My aunt recently rescued a dog that was sick.
10. She brought her home and named her Margaret.
11. They weren't sure she was going to live, but now she's healthy.
12. I just wish she could get along better with their cat.

Part B: Repeat. *Please repeat each sentence that you hear.*
Example: a voice says, "Leave town on the next train."
and you say, "Leave town on the next train."

Part C: Questions. *Now, please just give a simple answer to the questions.*
Example: a voice says, "Would you get water from a bottle or a newspaper?"
and you say, "a bottle" or "from a bottle".

Part D: Sentence Builds. *Now, please rearrange the word groups into a sentence.*
Example: a voice says, "was reading" ... "my mother" ... "her favorite magazine"
and you say, "My mother was reading her favorite magazine."

Part E: Open Questions. *You will have 20 seconds to answer each of three questions. The questions will be about family life or personal choices. You will hear each question twice. When you hear a beep, you will have 20 seconds to answer the question. At the end of the 20 seconds, another beep will signal the end of the time you have to answer.*

Expires: 2003/3/20

SET - 44 - 4648 - 1

Core Technologies

Computational Linguistics

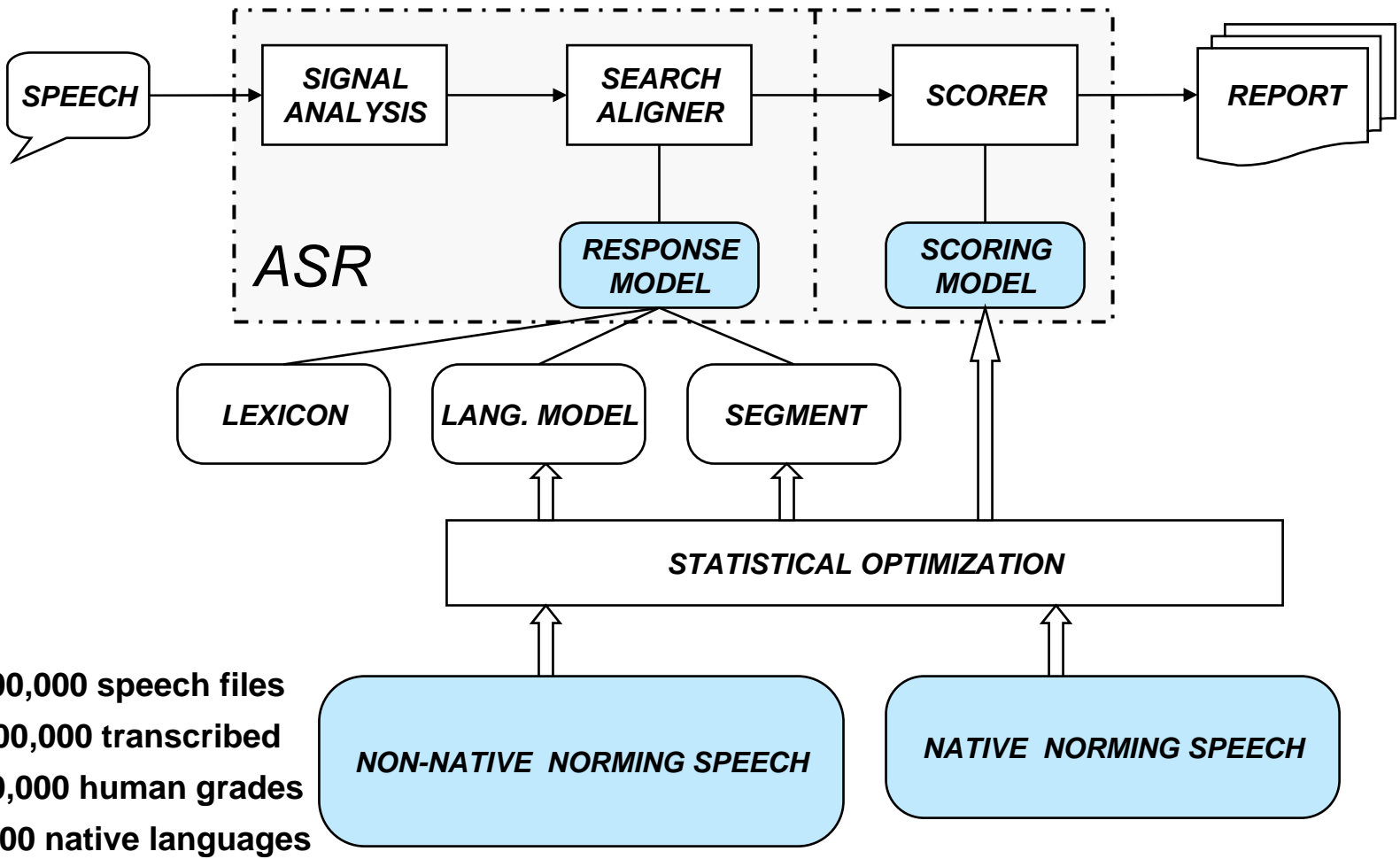   base materials/scoring on actual language usage

Speech Recognition

    measure what people say, and how they say it

    recognition optimized for special populations

Psychological Measurement

    careful validation assures reliability and fairness

Augmented Recognition Design

4,000,000 speech files
500,000 transcribed
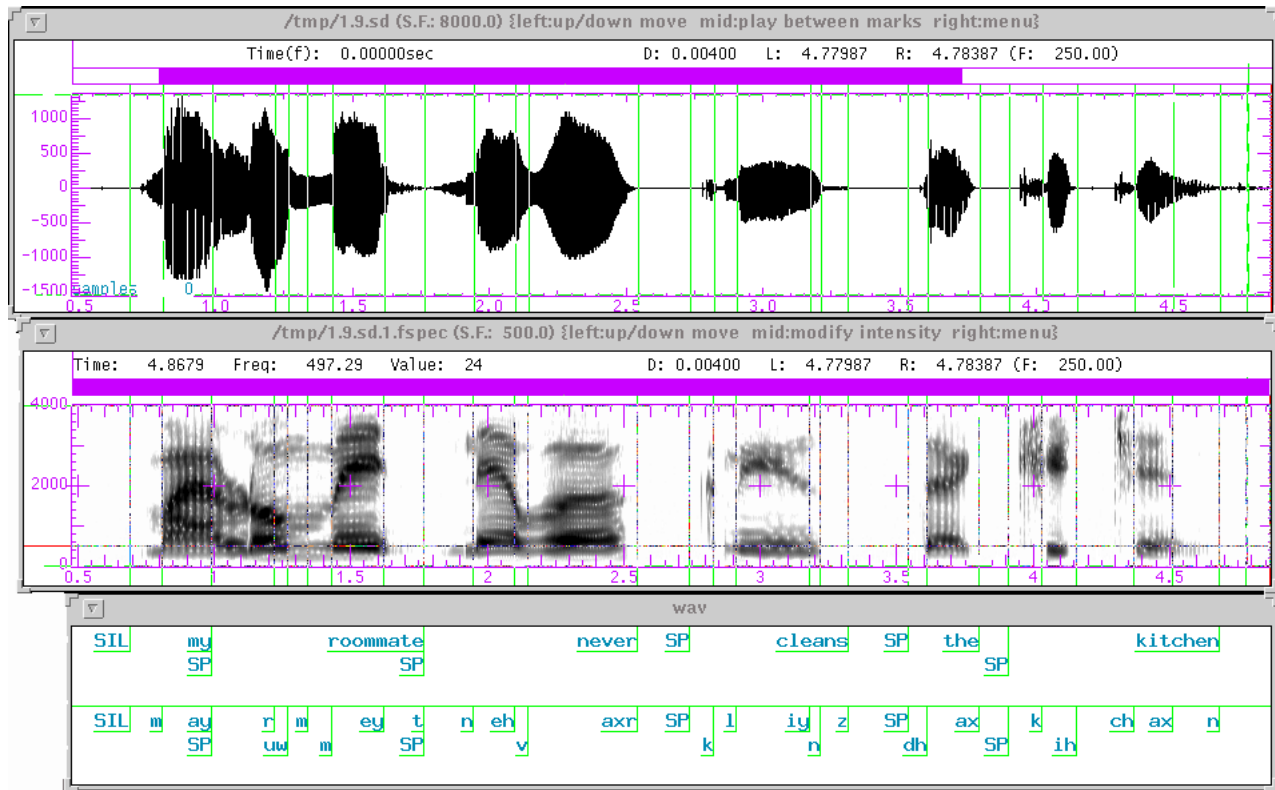**250,000 human grades**
> 100 native languages

Phoneme & Word Alignment

w1	w2		w3	w4	w5	w6

75-90 Words/Min

p p pppp p   p p p p   pp ppp   pp   p p p p p

5.8 Phones/Sec

waveform

spectrum

words

segmentation

Machine-Human Comparison

correlation = 0.94

N = 288
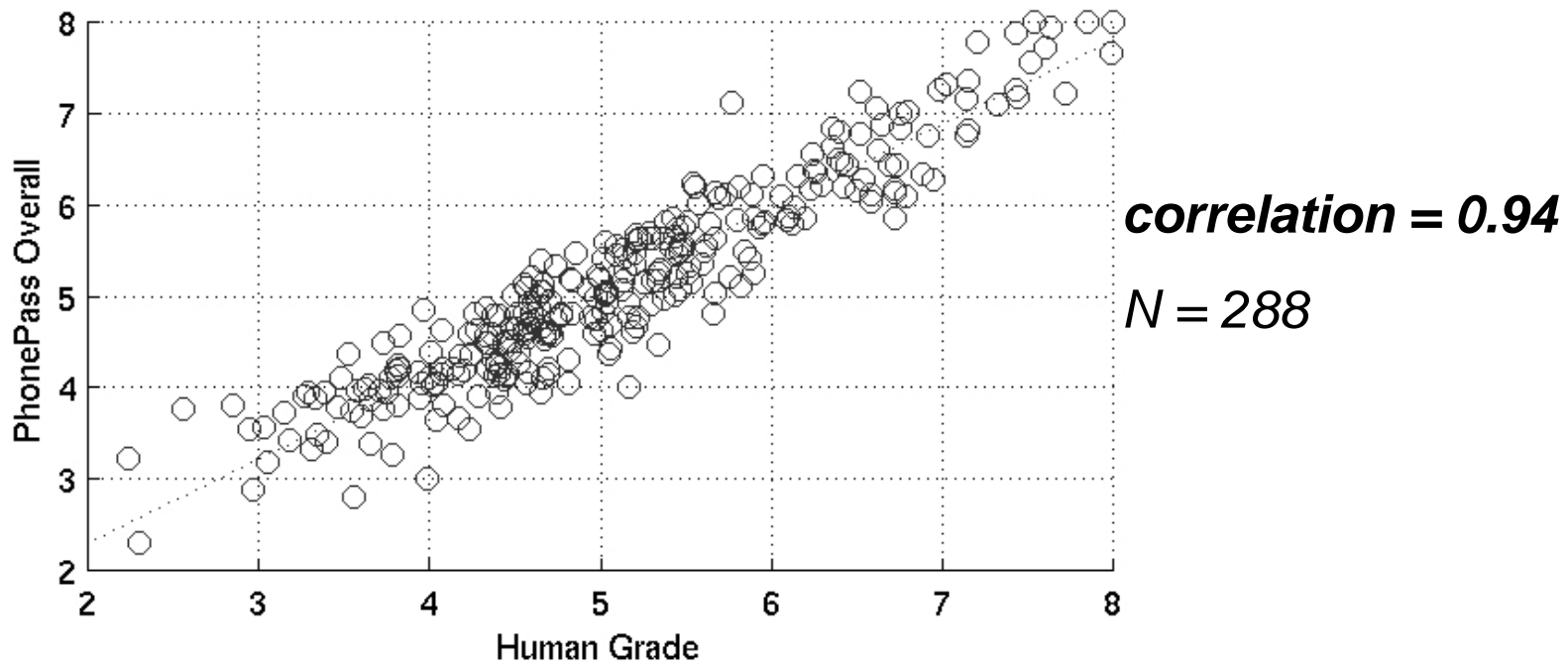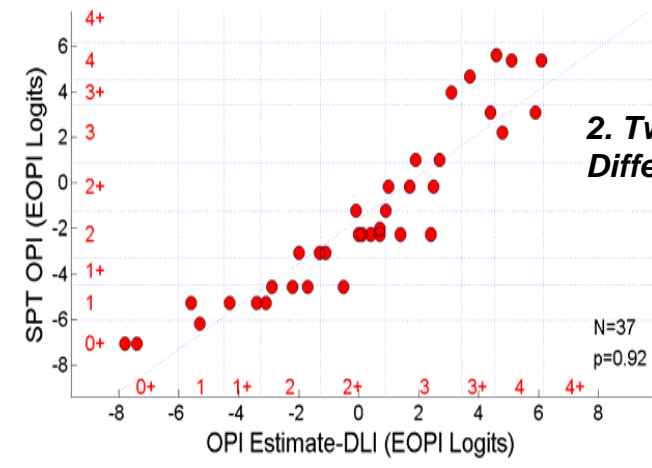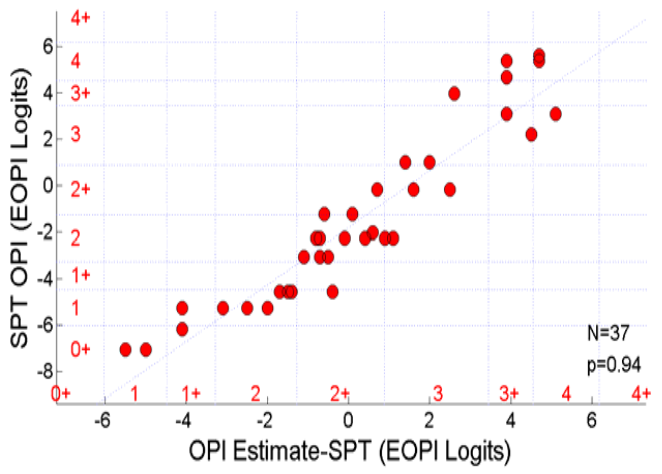
Data from testing at US universities and companies in Europe, Asia, and Latin America.
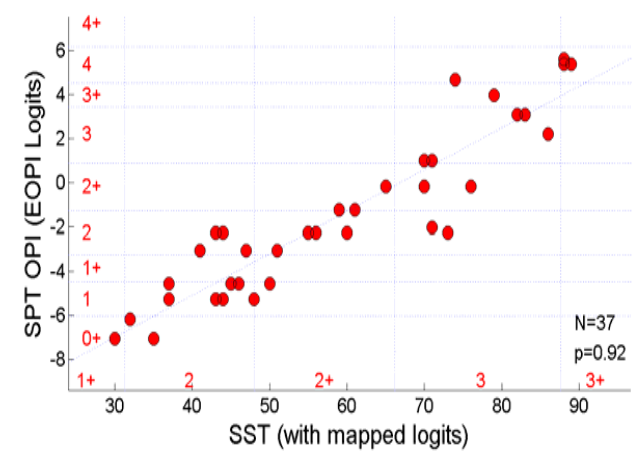
SST ~ SPT Interview

1. **SPT Interview ~ SPT ILR Estimate**
2. **SPT Interview ~ DLI ILR Estimate**
3. **SPT Interview ~ Machine score**

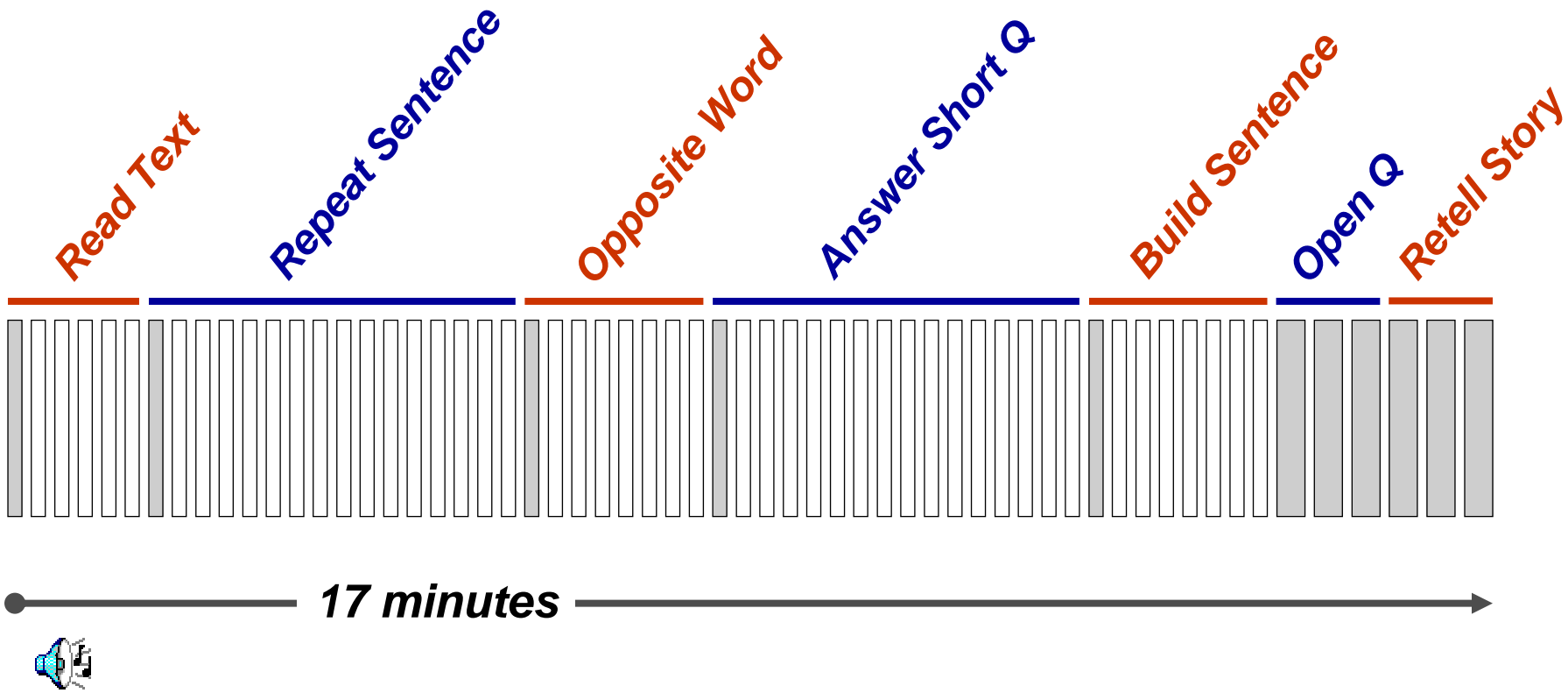
2. Two Rater Pairs Different Material

1. Same Raters Different Material

3. Machine ~ Two Raters Different Material

SST: 60-Item Sequence

Read Text — Repeat Sentence — Opposite Word — Answer Short Q — Build Sentence — Open Q — Retell Story

17 minutes

Summary & Invitation

Automatic spoken language testing advantages:
narrow construct and valid inference,
cost, operational reliability, convenience.

Available now in English (for adults & children),
in development for Spanish, Japanese, …

Invitation: Ordinate supports research projects
in several areas – let's test the tests.