

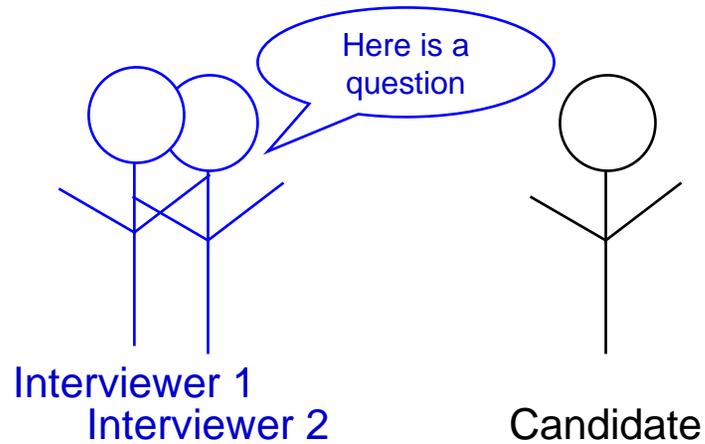
A Common Testing Framework for Computerized Spoken Language Tests in Multiple Languages

19 May 2005

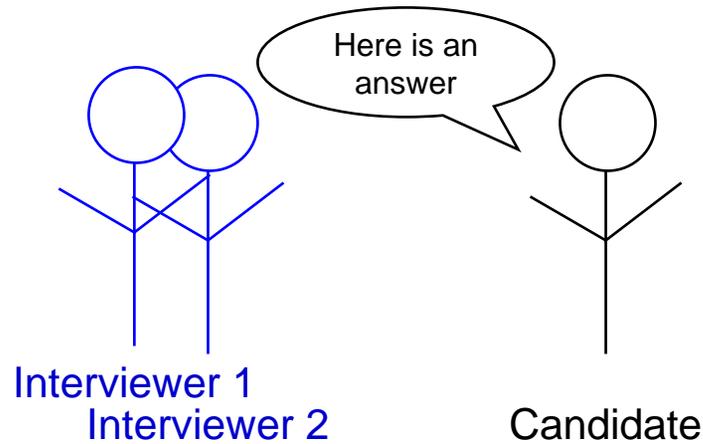
Jennifer Balogh

Ordinate Corporation, Menlo Park, California

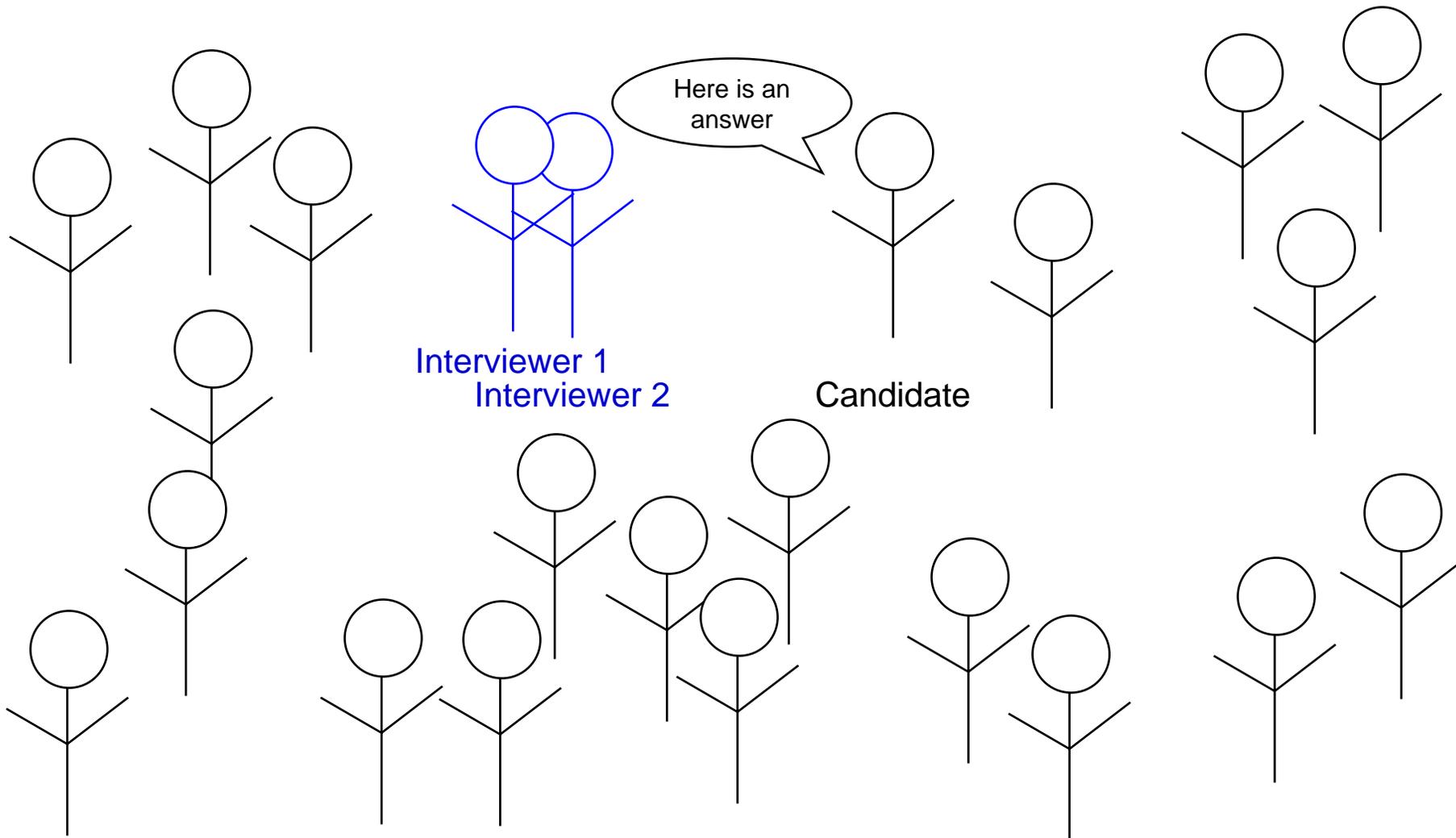
Oral Proficiency Interviews



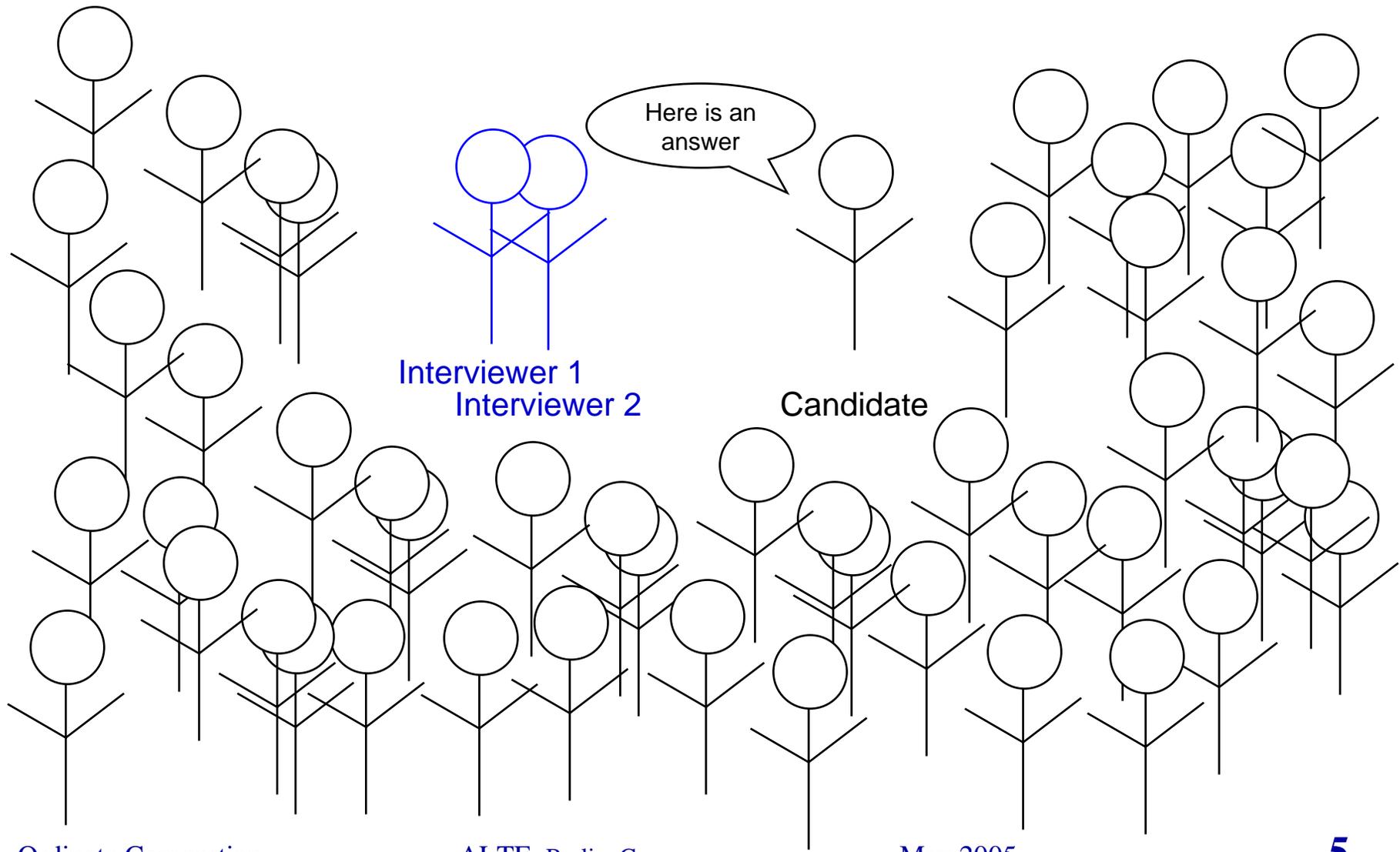
Oral Proficiency Interviews



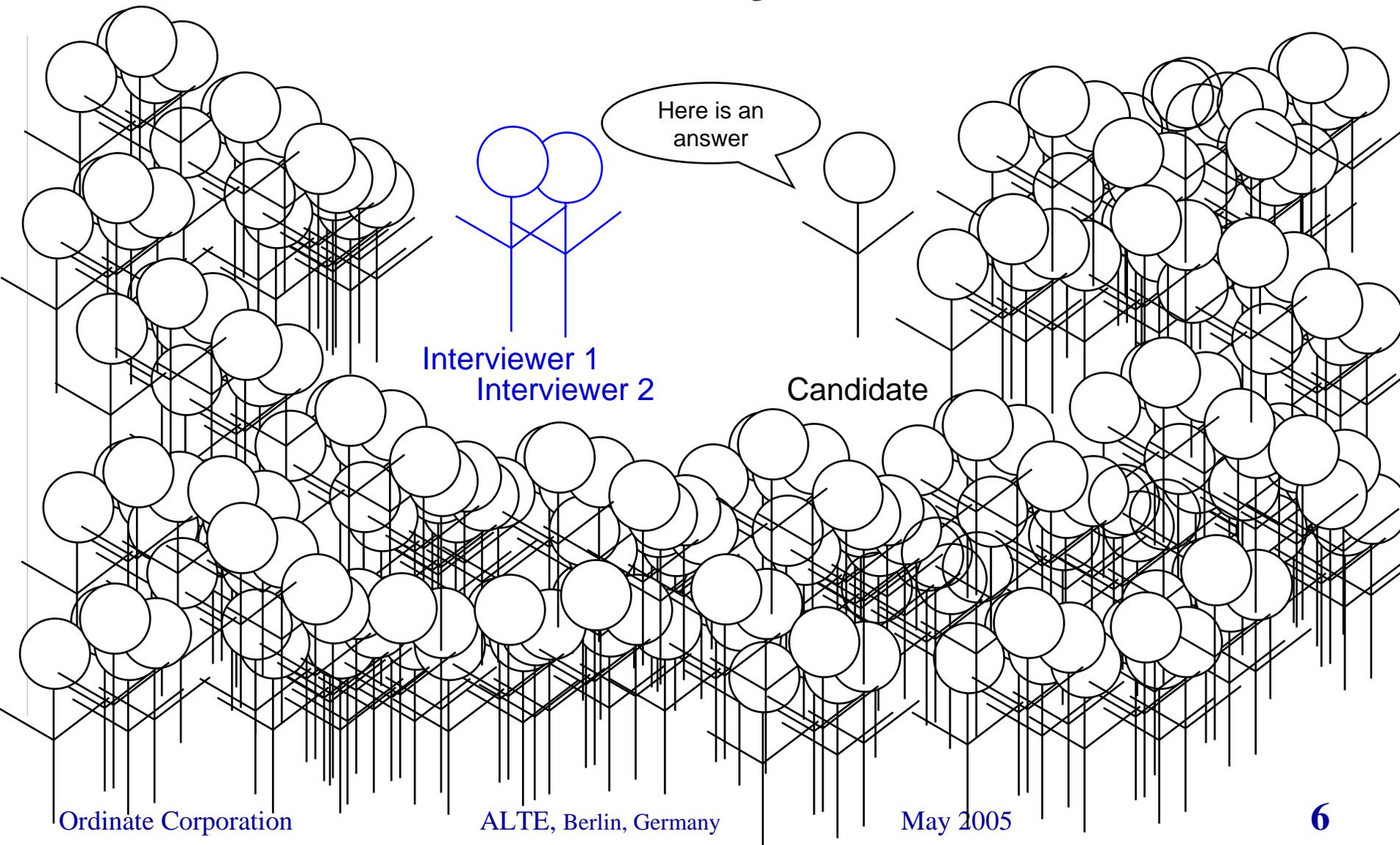
Oral Proficiency Interviews



Oral Proficiency Interviews



Oral Proficiency Interviews



Goals

- Create reliable & valid spoken language tests
 - Automatically administered
 - Automatically scored
- Use a common framework for all tests
 - Multiple languages
 - Quick development

Automatic Administration

Telephone Number to the System

Test Identification Number


<p>SST</p>
<p>Call: 1-800-444-7277 or 1-650-328-0336</p>
<p>Test Identification Number 1234 5678</p>
<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. Now, please follow the instructions for Parts A through G.</i></p>
<p>Part A: Reading. <i>Please read the sentences as you are instructed.</i></p> <ol style="list-style-type: none"> Julio recibió de regalo una nueva bicicleta último modelo. Iba a la universidad y al trabajo en su nueva bicicleta todos los días. Un día a la salida del trabajo se dio cuenta de que se la habían robado. Se quedó muy triste pensando que no le había durado mucho tiempo. Habían quedado en encontrarse en el parque, al mediodía. Mientras paseaban Jorge le contó sus planes y le preguntó si quería compartirlos. Ella se quedó pensando un rato, luego le dijo que sí, que le acompañaría. Felices, se abrazaron y decidieron ir a comer juntos al restaurante de la esquina.
<p>Part B: Repeat. <i>Please repeat each sentence that you hear.</i> Example: a voice says, "Le gustaba cantar canciones románticas." and you say, "Le gustaba cantar canciones románticas."</p>
<p>Part C: Opposites. <i>Now, when you hear a word, just say the opposite.</i> Example: a voice says, "alto" and you say "bajo". a voice says, "abierto" and you say "cerrado".</p>
<p>Part D: Questions. <i>Now, please just give a simple answer to the questions.</i> Example: a voice says, "Si estuviera enfermo, ¿a quién iría a ver: a un médico o a un vendedor?" and you say, "un médico" or "a un médico".</p>
<p>Part E: Sentence Builds. <i>Now, please rearrange the word groups into a sentence.</i> Example: a voice says, "y lo vimos" ... "nos asomamos" ... "marcharse" and you say, "Nos asomamos y lo vimos marcharse."</p>
<p>Part F: Open Questions. <i>You will have 30 seconds to answer each of two questions. The questions will be about family life or personal choices. Each question will be spoken twice, followed by a beep. When you hear the beep, you will have 30 seconds to answer the question. At the end of the 30 seconds, another beep will signal the end of the time you have to answer.</i></p>
<p>Part G: Story Retelling. <i>You will hear two brief stories. After each story, you will have 30 seconds to retell it in Spanish as best you can. Try to retell as much of the story as you can in Spanish, including the situation, characters, actions and ending.</i></p>

Process flow



1. Proctor downloads test from Ordinate web site and prints out



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



3. Candidate calls Ordinate – toll free number on test sheet



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



5. Candidate takes test (~10min)



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

Score Report - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

https://www.ordinate.com/ppass/ppuser/greport.jsp?pin=68073395

See All Score Ranges



Spoken Spanish Test

Administration Date: Jun 30, 2004 6:39:32 PM (PDT) Test Identification Number: 68073395

	20	25	30	35	40	45	50	55	60	65	70	75	80
Overall													
Sentence Mastery													
Vocabulary													
Fluency													
Pronunciation													

Overall (32)

The Overall Score of the test represents the ability to understand spoken Spanish and speak it intelligibly at a native conversational pace on everyday topics. Scores are based on a weighted combination of four diagnostic subscores. Scores are reported in the range from 20 to 80.

23-32 Test taker can manage slow, short, isolated utterances, or spoken formulas, but has difficulty following any native-paced conversation and will frequently need to ask for repetition; test taker often pauses to search for words and may often be difficult to understand.

Sentence Mastery (38)

Sentence Mastery reflects the ability to understand, recall and produce Spanish phrases and clauses in complete sentences. Performance

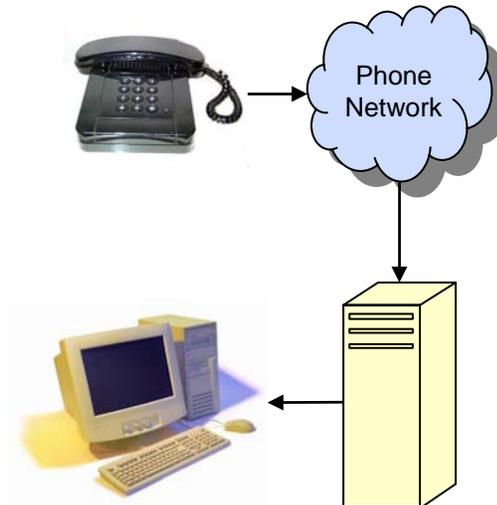
Done www.ordinate.com

Common Testing Framework

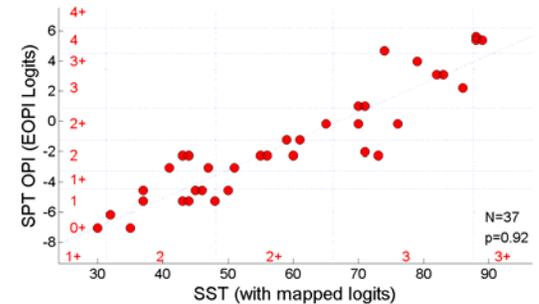
Test Architecture

Task Type
Task A
Task B
Task C
Task D
Task E
Task F
Task G

Testing System



Development and Validation Process

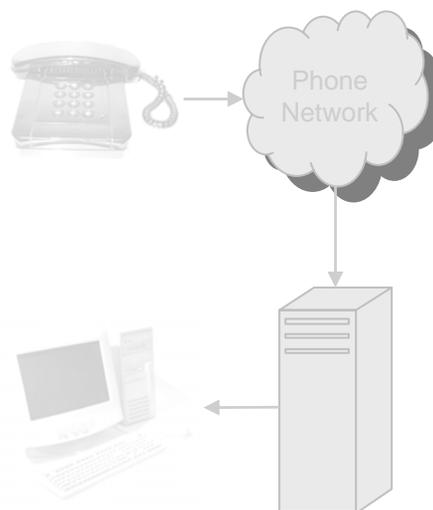


Common Testing Framework

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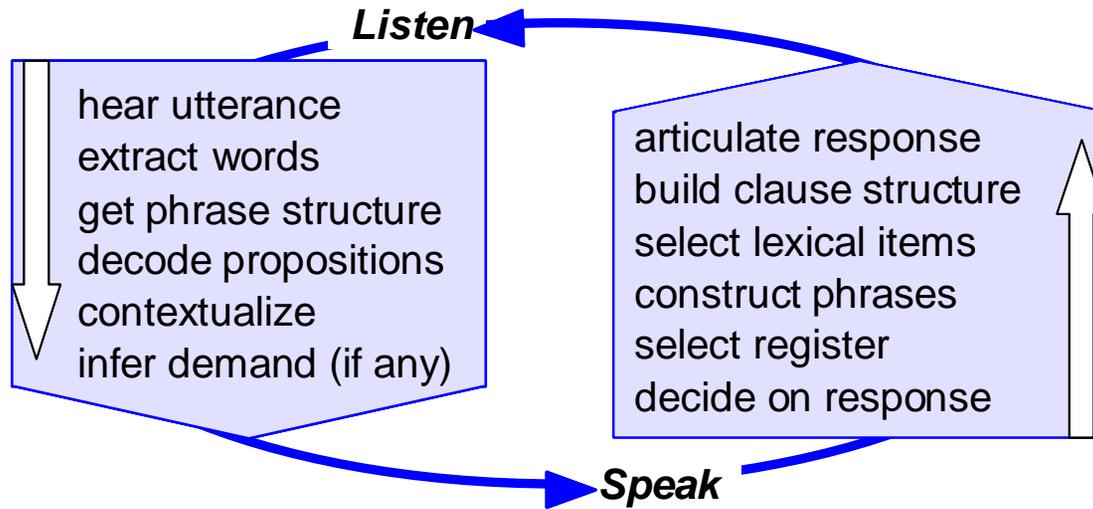


Development and Validation Process



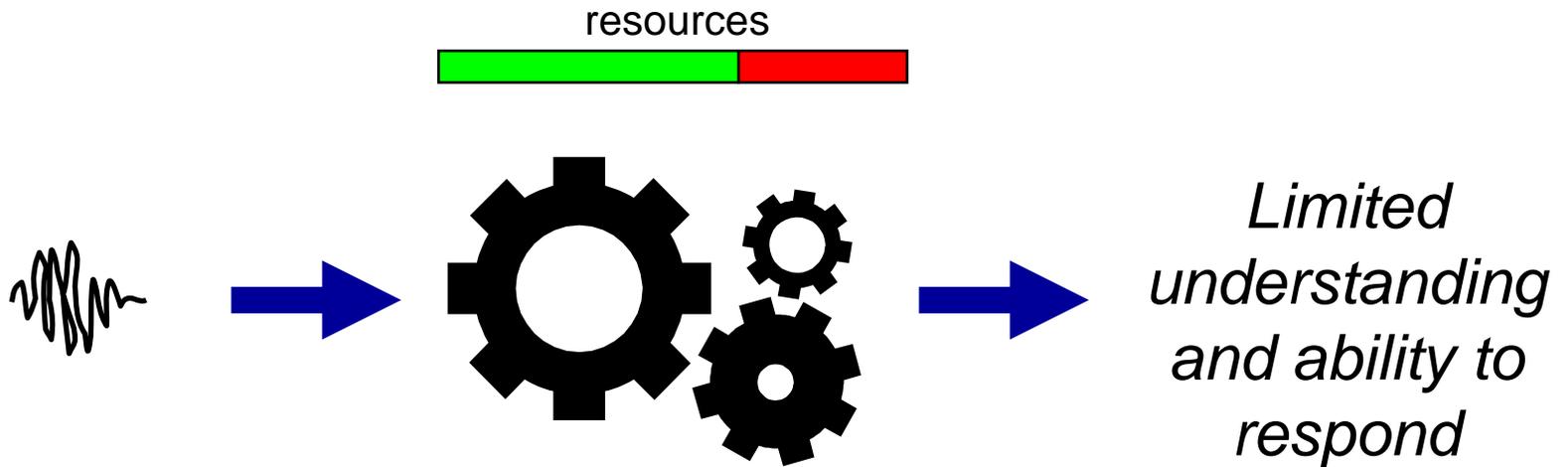
Test Construct

Measures *facility in spoken language*

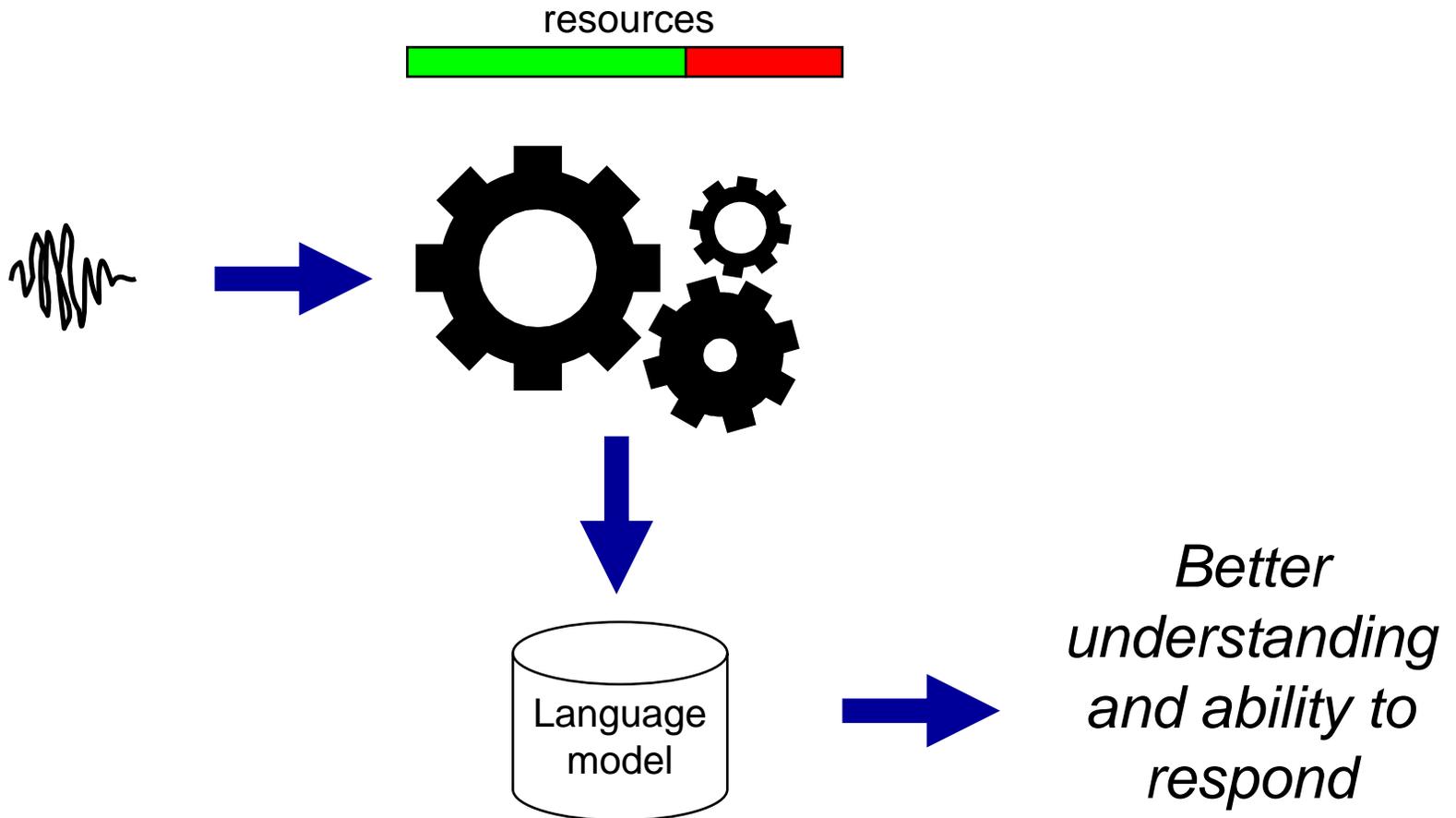


Adapted from Levelt, 1989

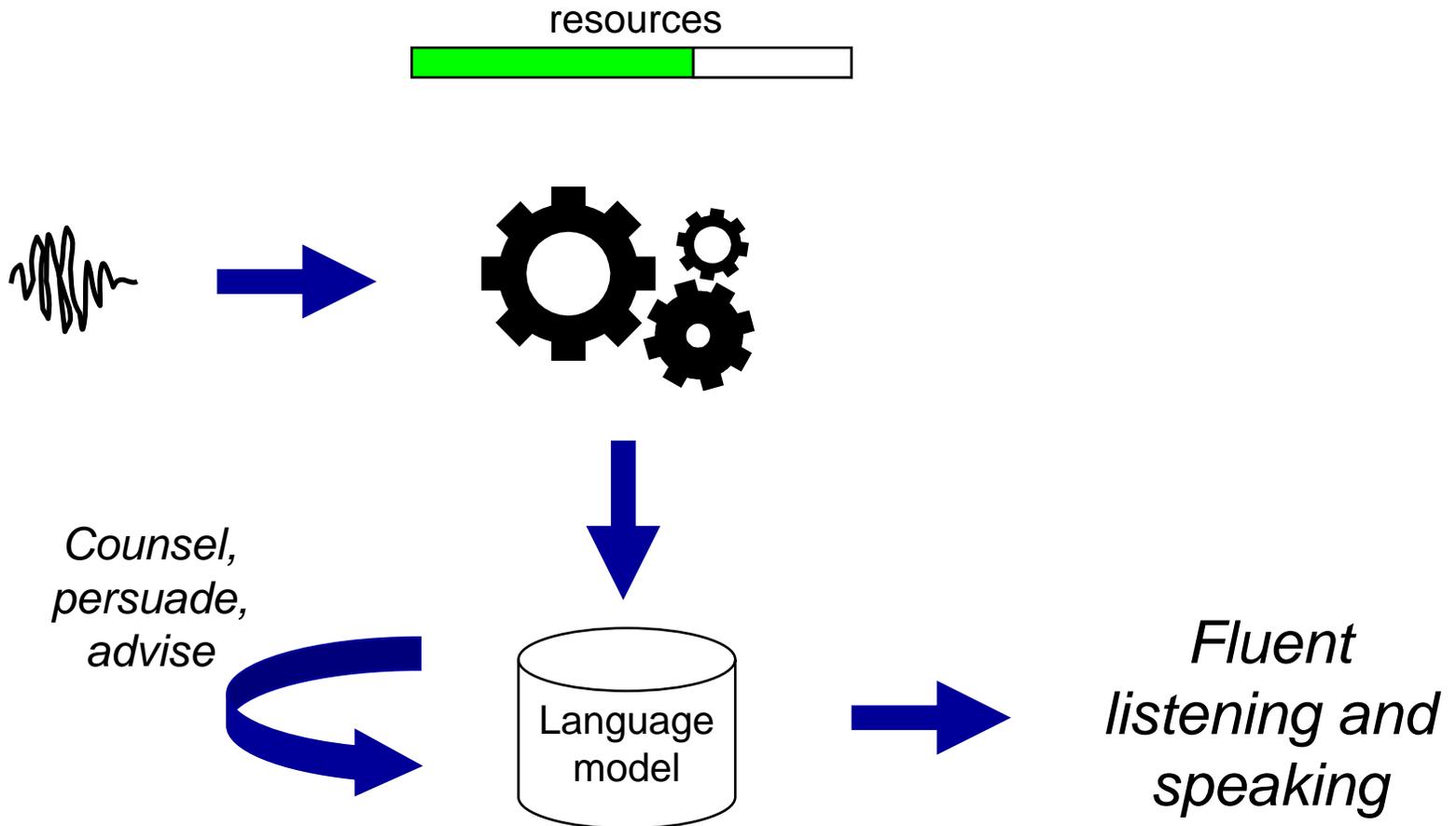
Theory of Language Proficiency: Automaticity



Theory of Language Proficiency: Automaticity



Theory of Language Proficiency: Automaticity



Test Design

Test Part	Task Type	Example
Part A	Read Aloud	Julio había recibido de regalo una hermosa bicicleta último modelo. <i>Julio was given the latest model of a beautiful bicycle as a gift.</i>
Part B	Repeat Sentences	<i>“El joven camina por la calle.”</i> <i>The man walks along the street.</i>
Part C	Say the Opposite	<i>“alto”</i> <i>high</i>
Part D	Answer Short Questions	<i>“¿Cuántas patas tiene un perro?”</i> <i>How many legs does a dog have?</i>
Part E	Build Sentences	<i>“te / María / ama”</i> <i>you / Maria / loves</i>
Part F	Answer Open Questions	<i>“¿Prefiere usted vivir en la ciudad o en el campo? Por favor explique su elección.”</i> <i>Do you prefer to live in the city or the countryside? Please explain your choice.</i>
Part G	Retell Stories	<i>“Tres niñas caminaban a la orilla de un arroyo cuando vieron a un pajarito con las patitas enterradas en el barro...”</i>



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Introduction:

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Now, please say the city and country you are calling from.
Now, please follow the instructions for Parts A through G.*

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

1. Julio recibió de regalo una nueva bicicleta último modelo.
2. Iba a la universidad y al trabajo en su nueva bicicleta todos los días.
3. Un día a la salida del trabajo se dio cuenta de que se la habían robado.
4. Se quedó muy triste pensando que no le había durado mucho tiempo.
5. Habían quedado en encontrarse en el parque, al mediodía.
6. Mientras paseaban Jorge le contó sus planes y le preguntó si quería compartirlos.
7. Ella se quedó pensando un rato, luego le dijo que sí, que le acompañaría.
8. Felices, se abrazaron y decidieron ir a comer juntos al restaurante de la esquina.

Part B: Repeat. *Please repeat each sentence that you hear.*

Example: a voice says, "Le gustaba cantar canciones románticas."
and you say, "Le gustaba cantar canciones románticas."

Part C: Opposites. *Now, when you hear a word, just say the opposite.*

Example: a voice says, "alto" and you say "bajo".
a voice says, "abierto" and you say "cerrado".

Part D: Questions. *Now, please just give a simple answer to the questions.*

Example: a voice says, "Si estuviera enfermo, ¿a quién iría a ver: a un médico o a un vendedor?"
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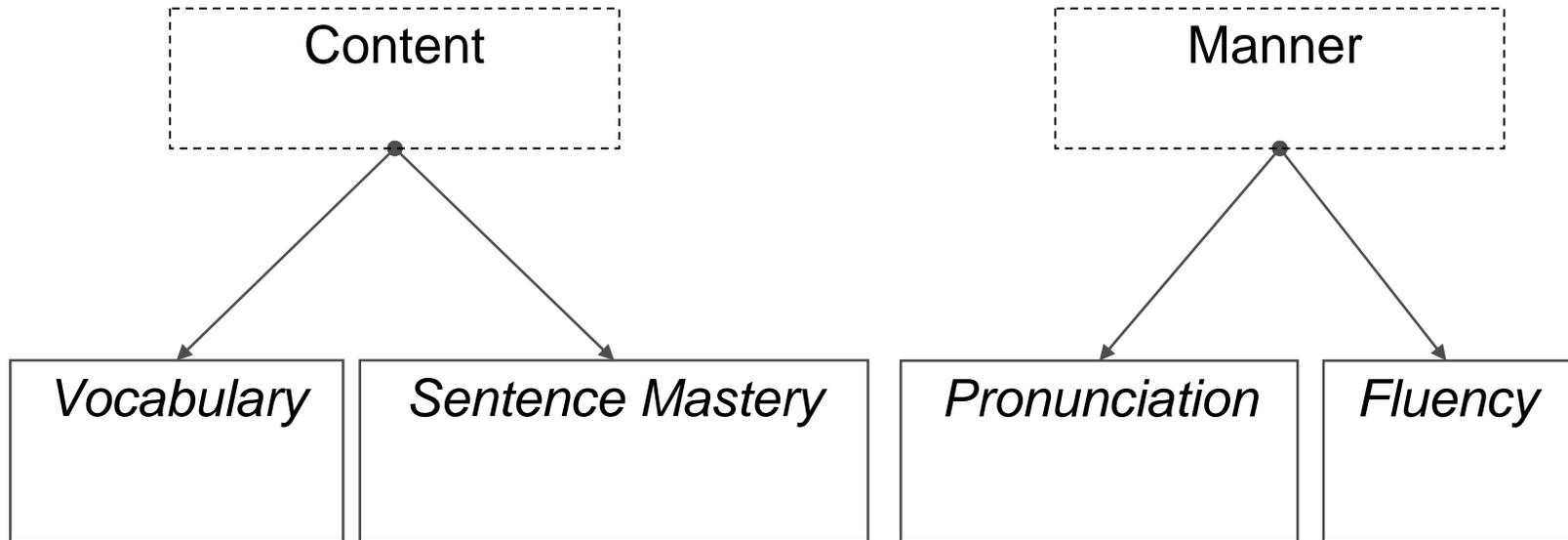
Part E: Sentence Builds. *Now, please rearrange the word groups into a sentence.*

Example: a voice says, "y lo vimos" ... "nos asomamos" ... "marcharse"
and you say, "Nos asomamos y lo vimos marcharse."

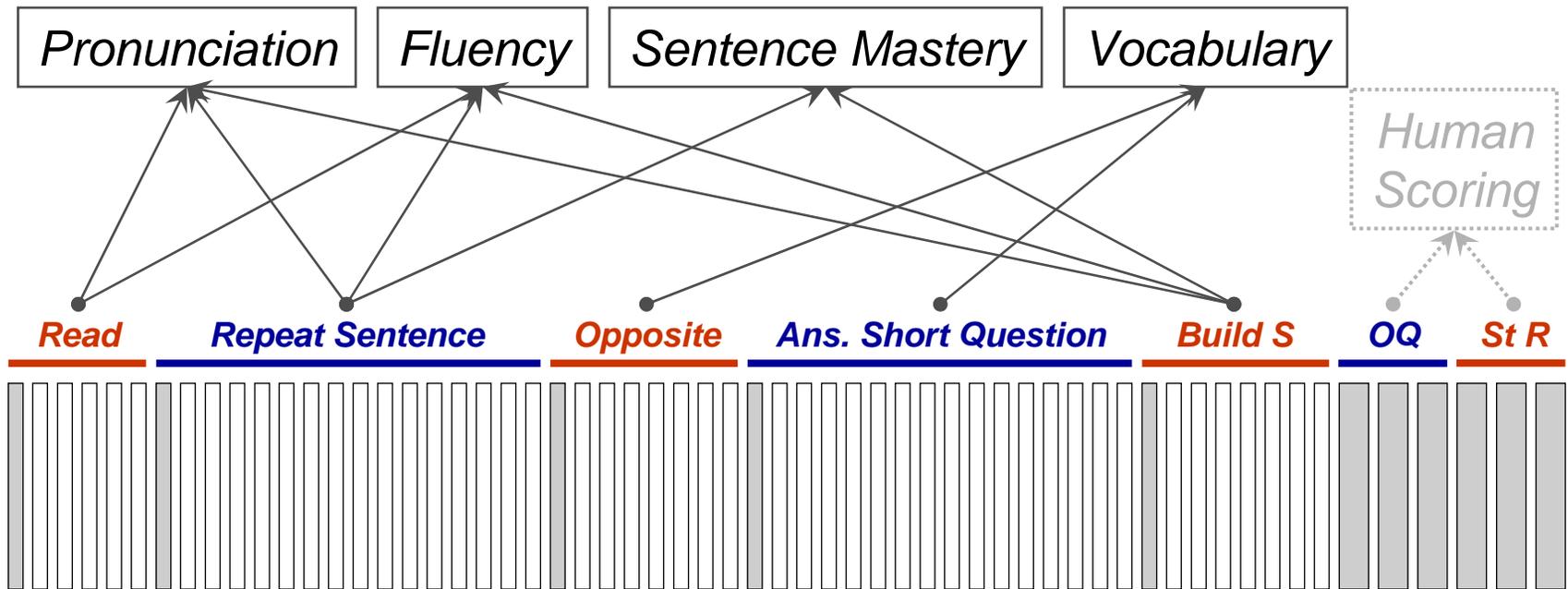
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Part G: Story Retelling. *You will hear two brief stories. After each story, you will have 30 seconds to retell it in Spanish as best you can. Try to retell as much of the story as you can in Spanish, including the situation, characters, actions and ending.*

Scoring



Scoring Logic



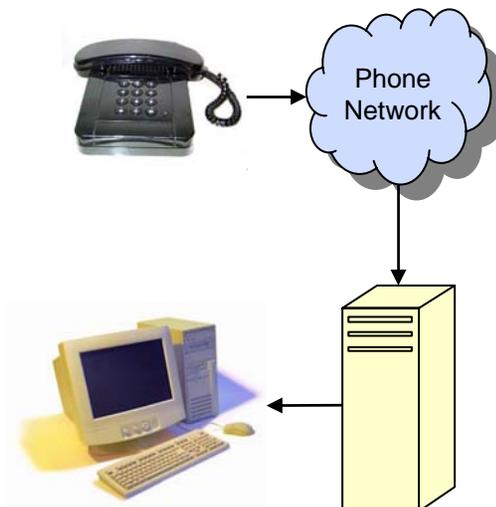
$$SST = (30\% \text{ Sent.M}, 20\% \text{ Vocab}, 30\% \text{ Fluency}, 20\% \text{ Pron})$$

Common Testing Framework

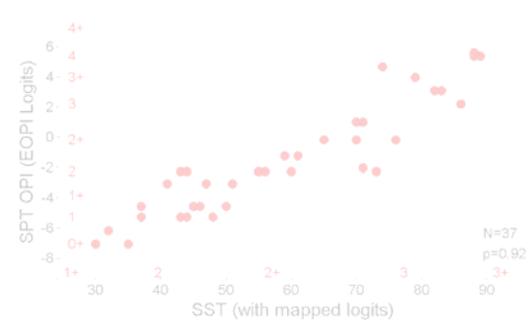
Test Architecture

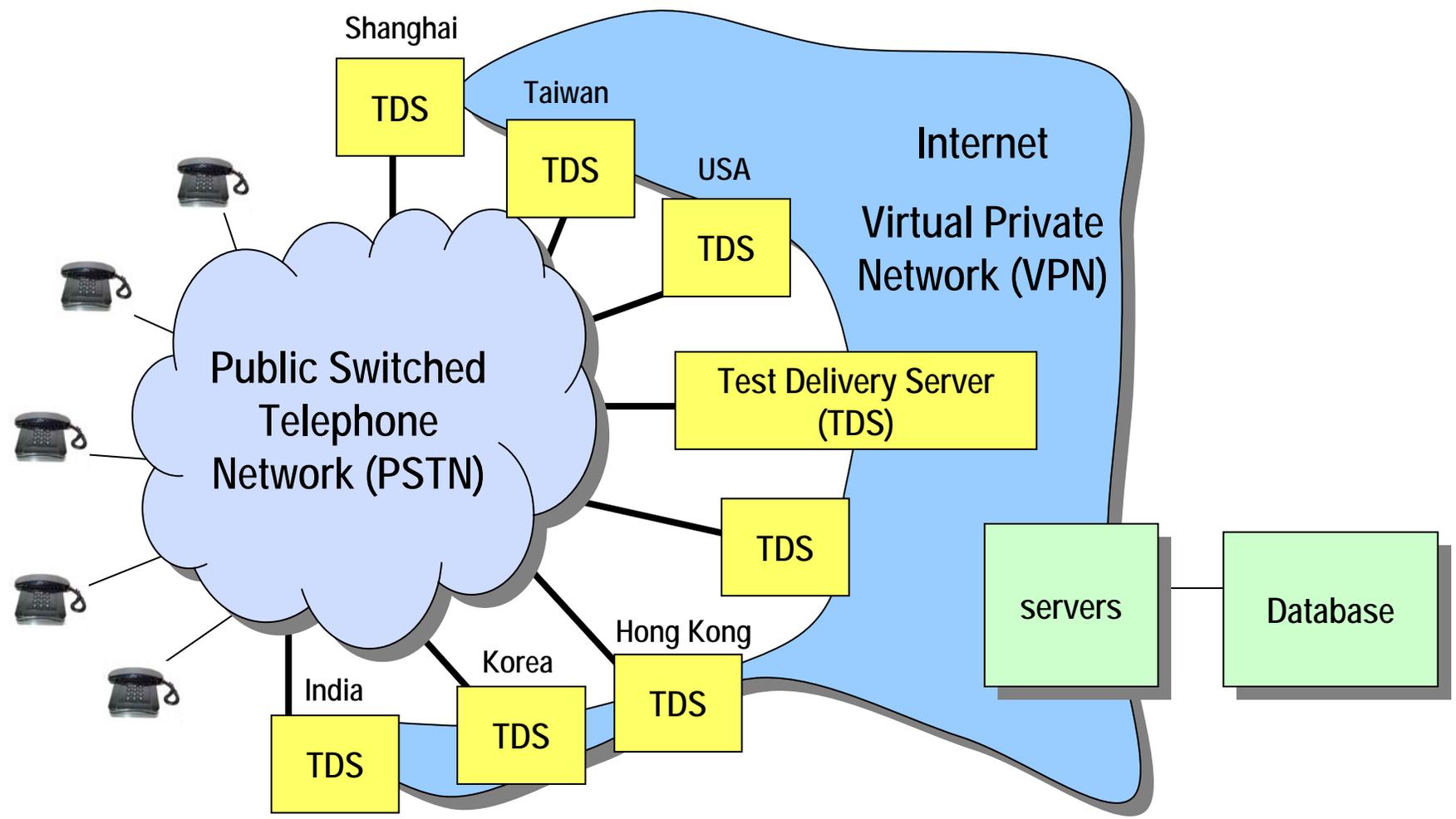
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Development and Validation Process



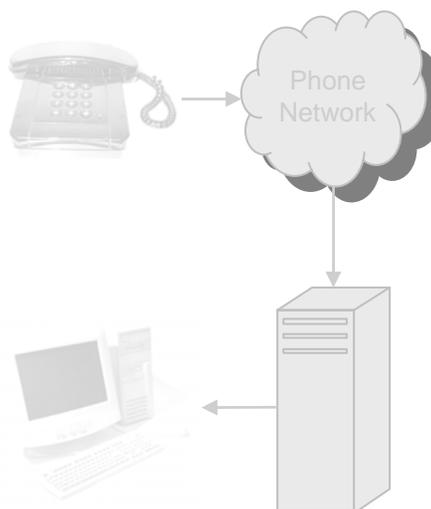


Common Testing Framework

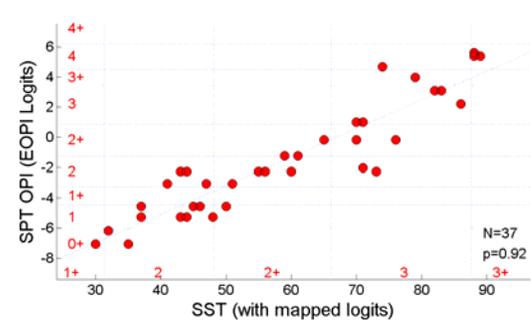
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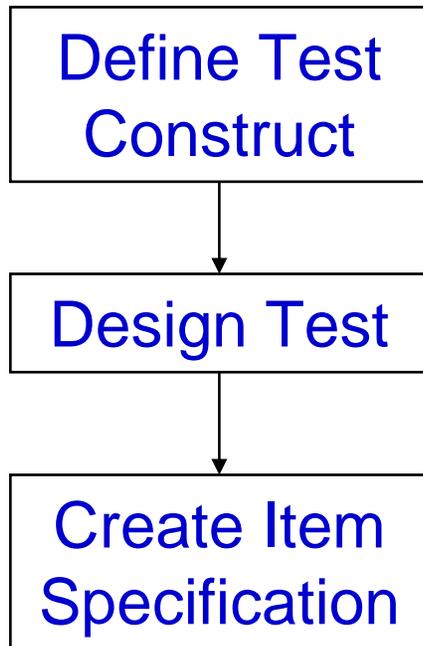


Development and Validation Process



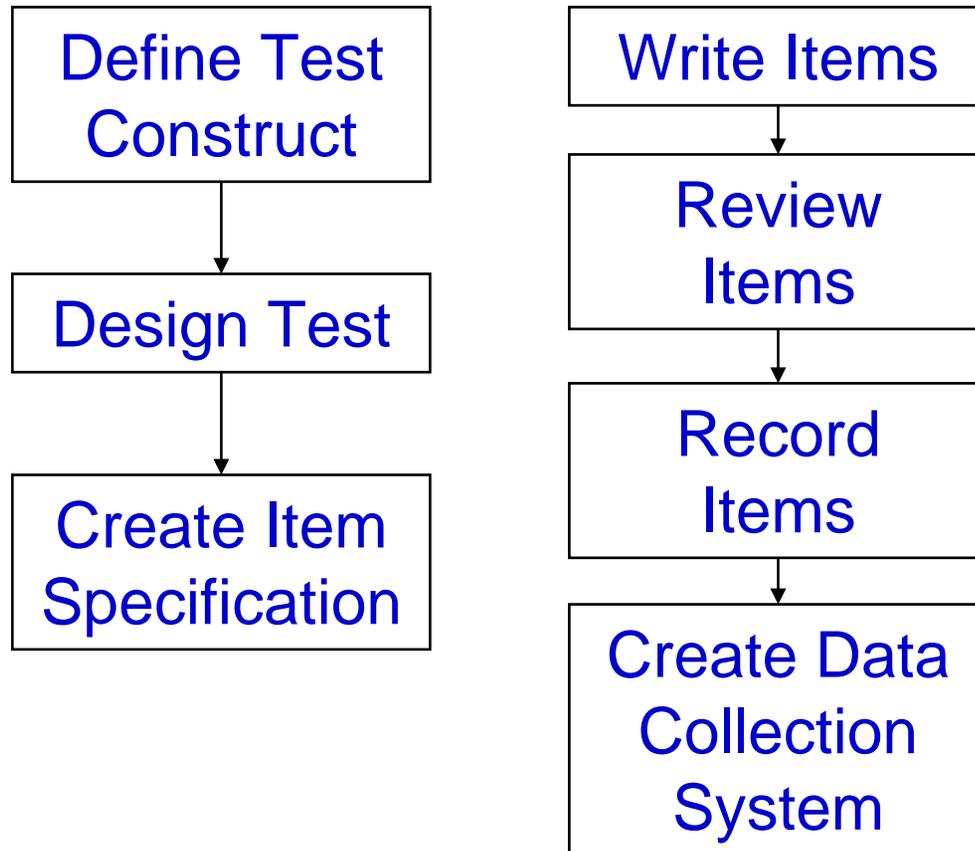
Development

PLAN

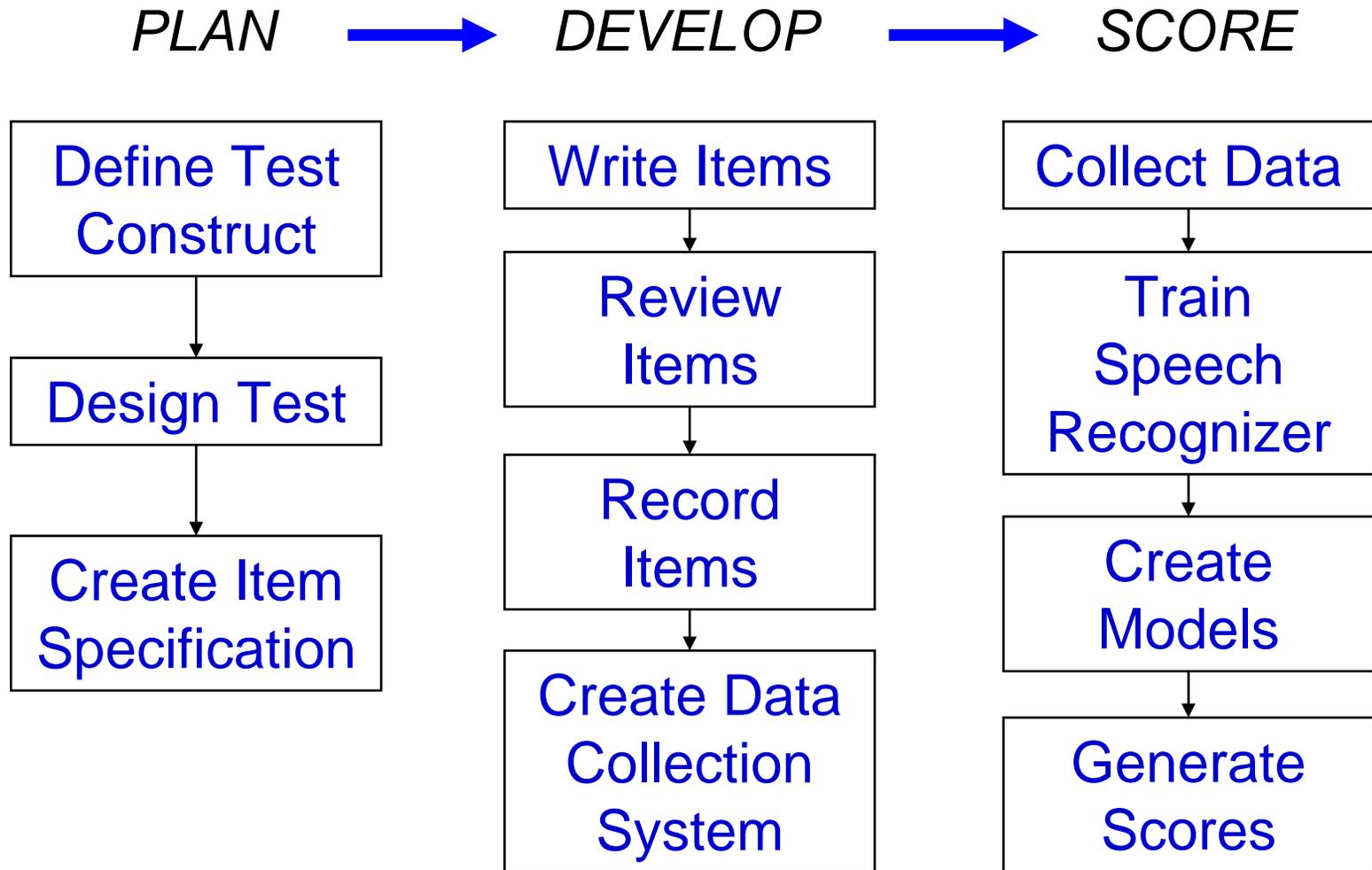


Development

PLAN → *DEVELOP*



Development



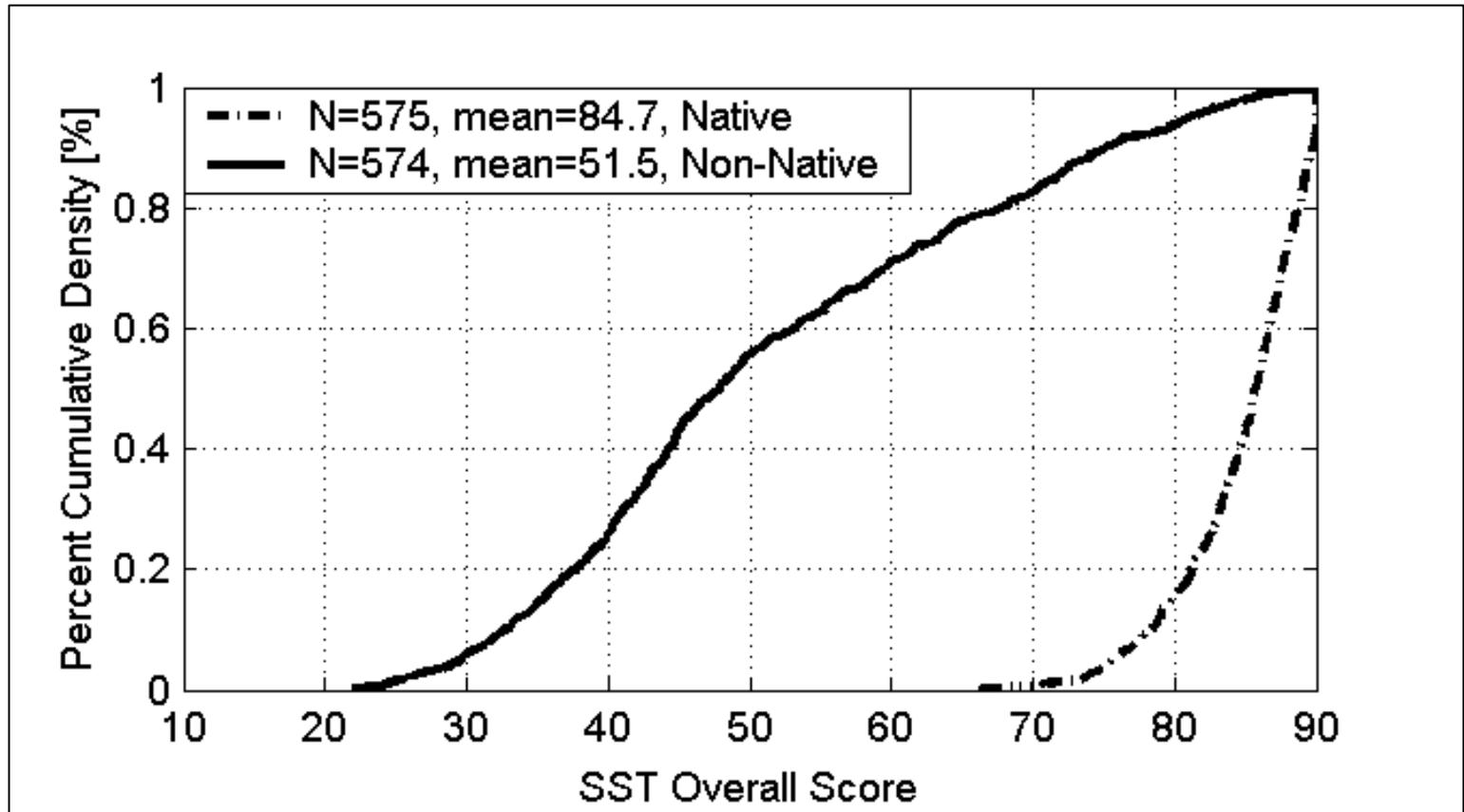
Validation

- Reliability
- Validity
 - Separation of Natives and Non-Natives
 - Correlation with Human Ratings

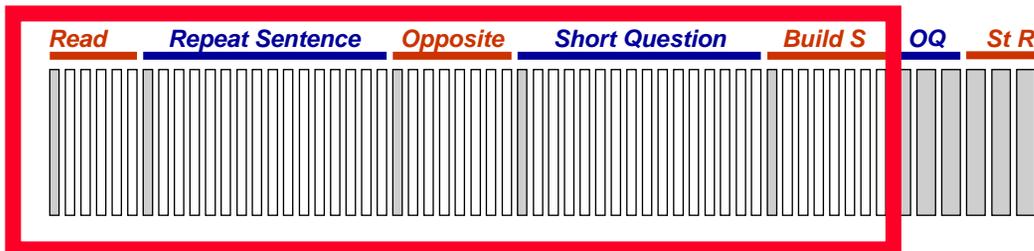
Reliability

Score Types	SET-10	SST
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

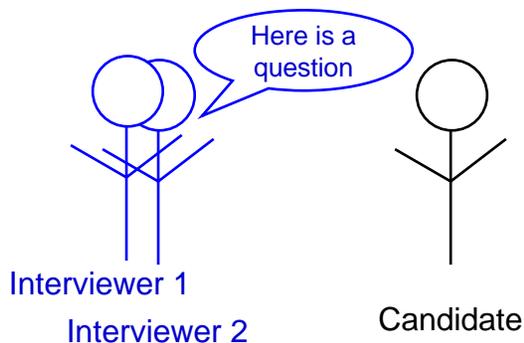
Separation of Natives and Non-Natives



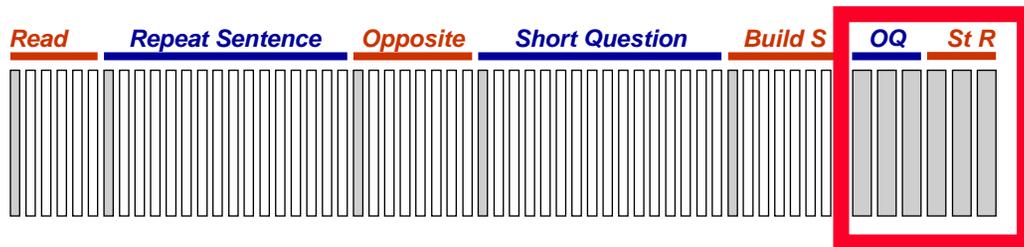
Machine and Human Ratings



Machine Scores



Human Interview Scores

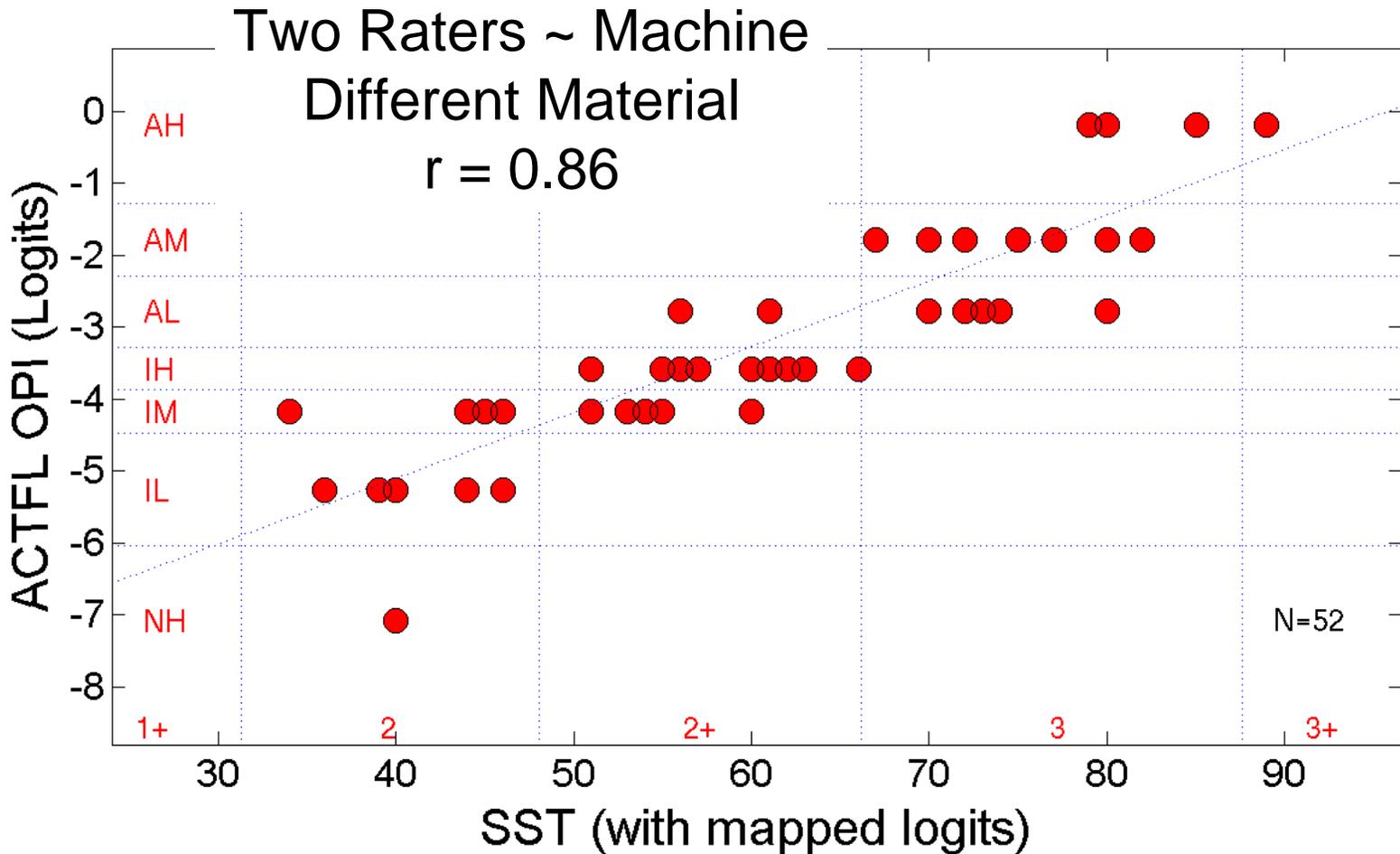


*Estimates
(2 human raters per)*

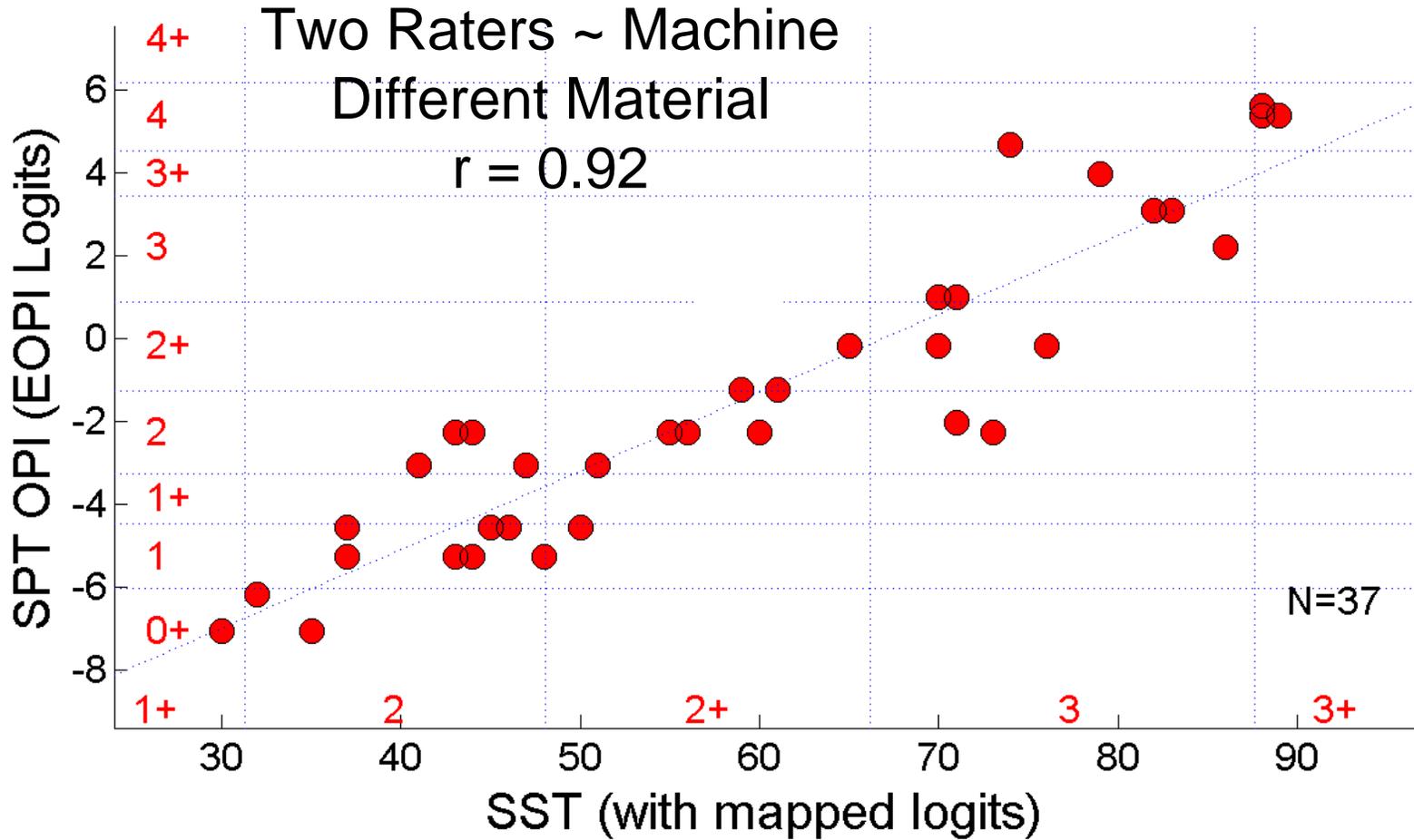
SET-10 Concurrent Validity

Instrument	r	n
TSE	0.88	58
New TOEFL Speaking	0.84	321
Common European Framework, 1 st experiment	0.84	121
Common European Framework, 2 nd experiment	0.94	150
Common European Framework, 3 rd experiment	0.88	303

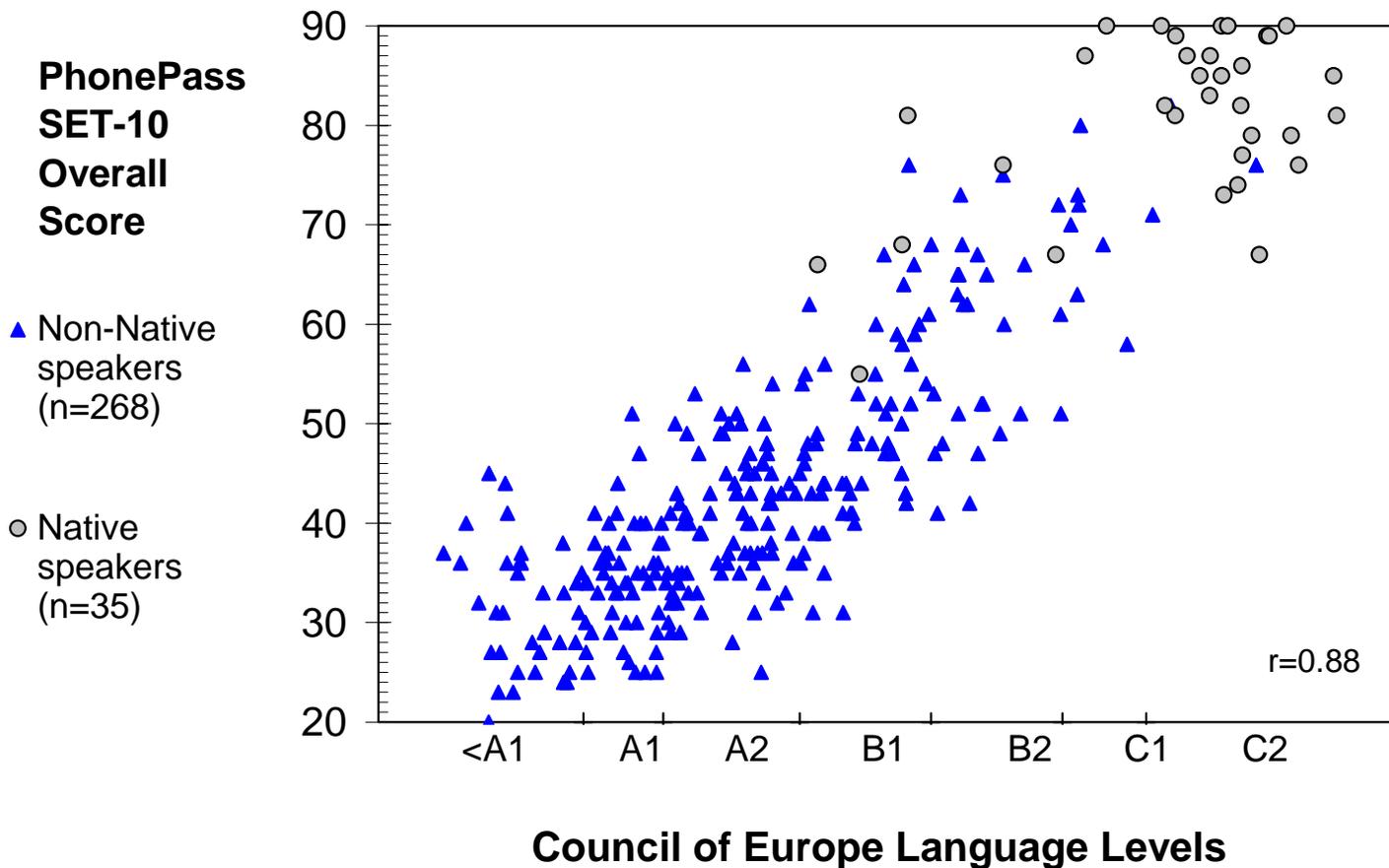
SST ~ ACTFL OPI



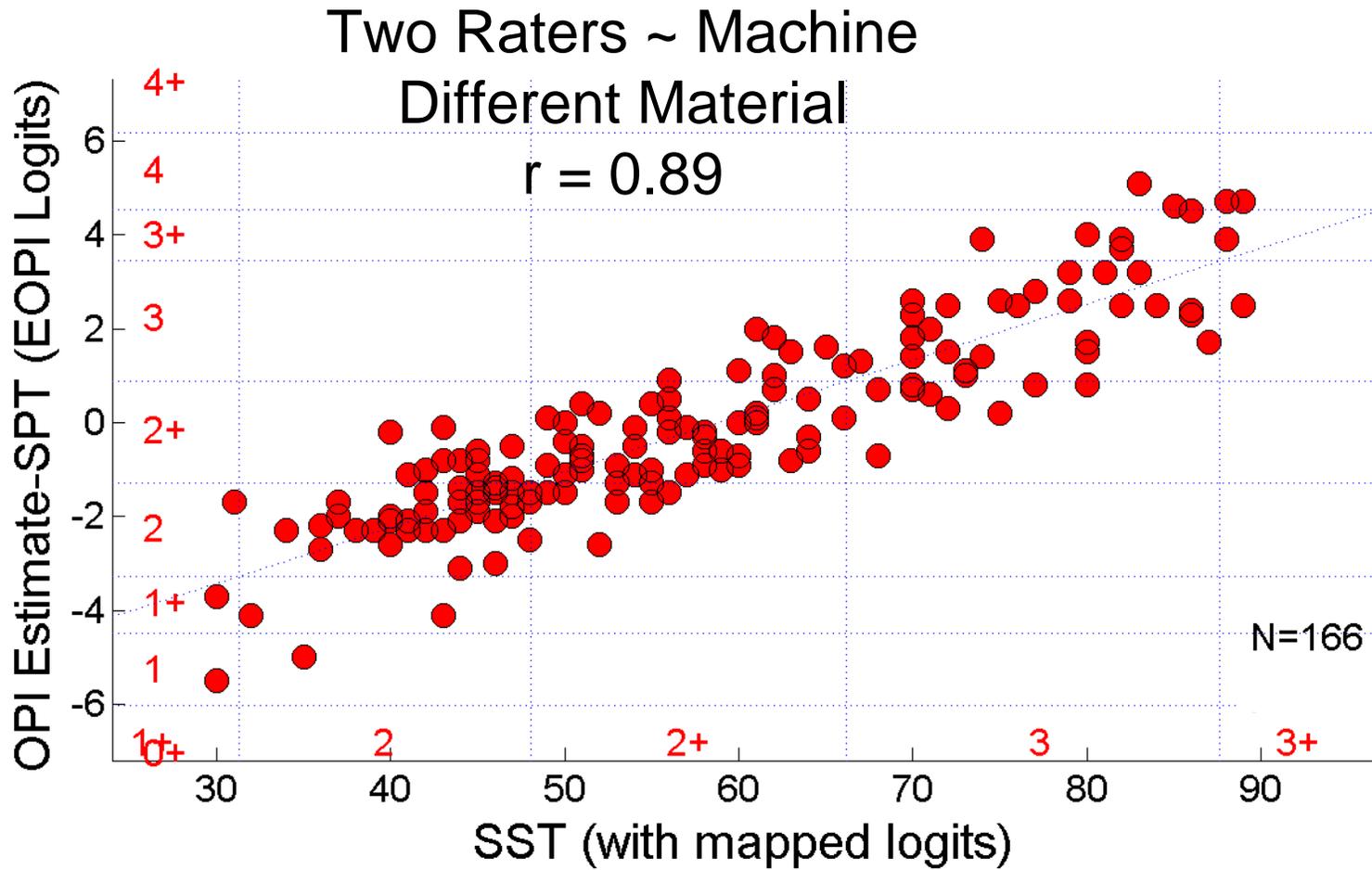
SST ~ SPT OPI



SET-10 ~ CEF Estimates



SST ~ ILR Estimate-SPT

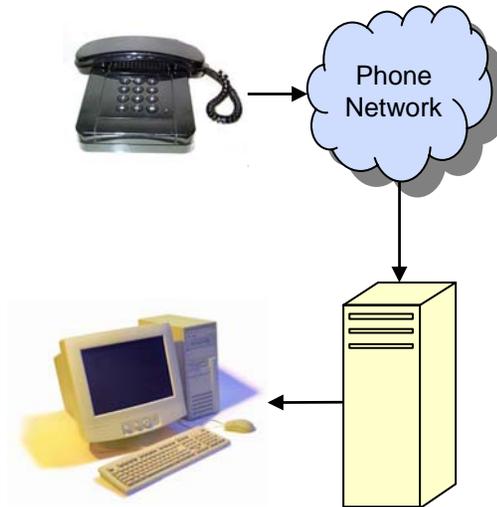


Common Testing Framework

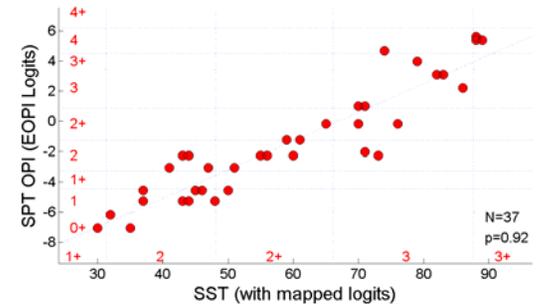
Test Architecture

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Development and Validation Process



Conclusions

- **Common Testing Framework**
 - Can be used for any language
 - Allows for quick development

- **Spoken Language Tests**
 - Automatically administered and scored
 - Reliable
 - Valid