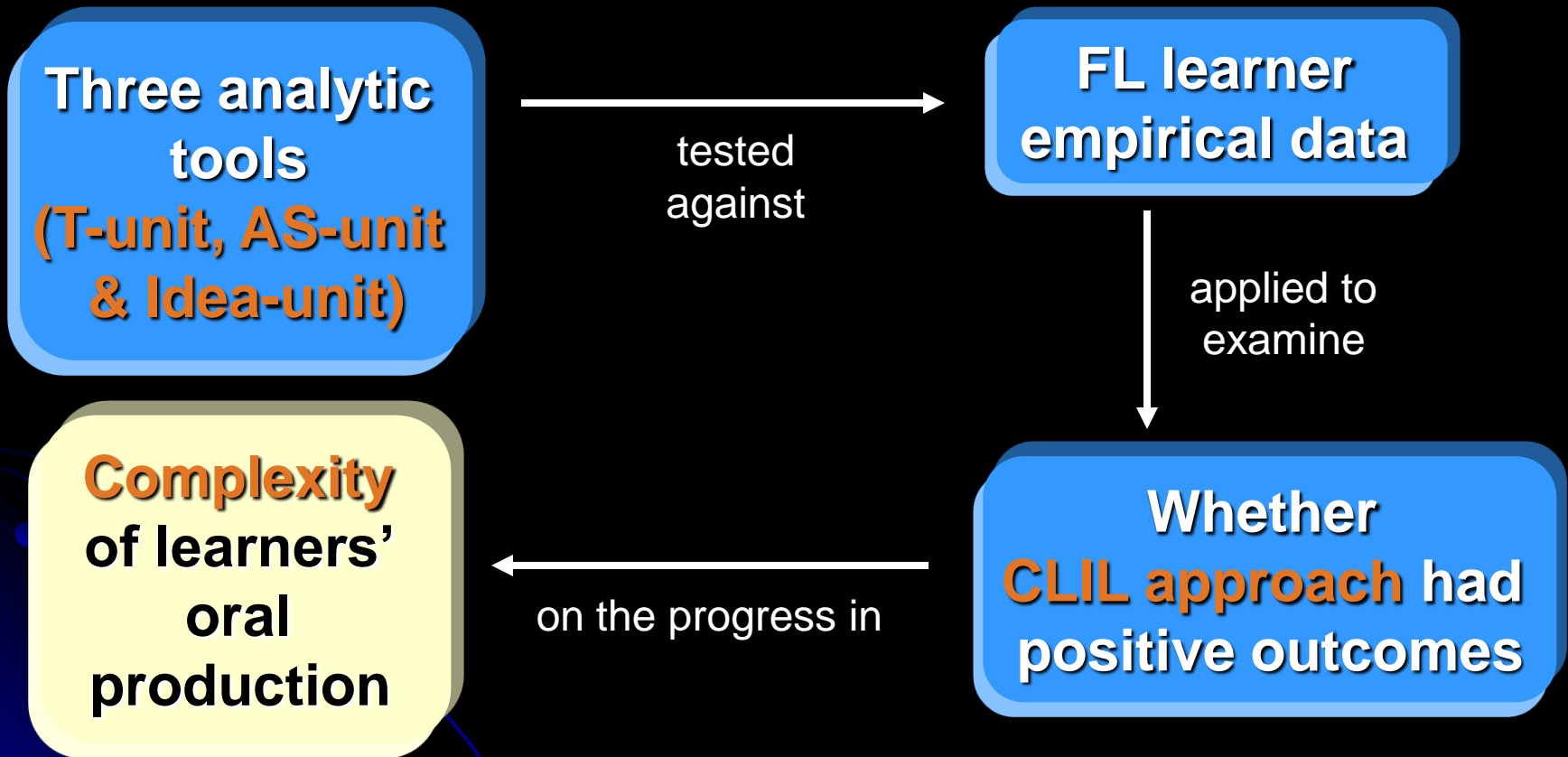# What is Behind Statistically Significant Results in SLA Research? Challenges in the Segmentation of CLIL Learner Oral Data

Natalia Evnitskaya
Universitat Autònoma de Barcelona

INTRODUCTION

Three analytic tools (T-unit, AS-unit & Idea-unit) → tested against → **FL learner empirical data**

applied to examine

Complexity of learners' oral production ← on the progress in ← **Whether CLIL approach had positive outcomes**

THEORETICAL FRAMEWORK I

Complexity of learners' oral production

• A language aspect which concerns the elaboration of the language which is produced (Skehan 1996)

• The capacity to use more advanced language and to encode more complex ideas (Ellis & Yuan 2004)

What enables learners to progress and produce more complex language is their willingness and preparedness to take risks and restructure their interlanguage by experimenting with language (Skehan & Foster 1999)

SOME PROBLEMS

• Many researchers "do not present their primary data in their publications and hence the reliability of major sections of their analyses is not available for scrutiny" (Seedhouse 2005)

• Transcribed and segmented data samples should be available to other researchers (Pallotti 2007)

• Only <u>7 studies from 30</u> provided segmented transcripts (Foster, Tonkyn & Wigglesworth 2000; Sotillo 2000; Ellis & Barkhuizen 2005; Gilabert 2005; Kawauchi 2005; Iwashita 2006; Larsen-Freeman 2006)

Absence of illustrative examples ⟶ **Focus on data segmentation**

RESEARCH TOOL: Idea-unit

"A message segment consisting of a topic and comment that is separated from contiguous units syntactically and/or intonationally" (Ellis & Barkhuizen 2005)

o **Alternative tool to T-unit and AS-unit**

o **Semantic & intonational criteria**

o 'Major' and 'Minor' Idea-units

o **Non-interactive narrative** tasks (Larsen-Freeman 2006)

o Attractive and promising tool for assessing complexity of learner academic discourse

OBJECTIVES

To evaluate the appropriateness and effectiveness of the chosen tools for the assessment of complexity of learners' academic oral discourse produced in the CLIL classroom:

❖ To examine the methodological issues that arise when each tool is applied to our data

❖ To observe what information each tool provides about complexity of the language produced

METHODOLOGY: THE CORPUS

❖ CLIL teaching sequence about Amazon rainforests and their actual problematic situation

❖ State secondary school in Metropolitan Barcelona in 2005

❖ Oral pretest – posttest: three open-ended questions

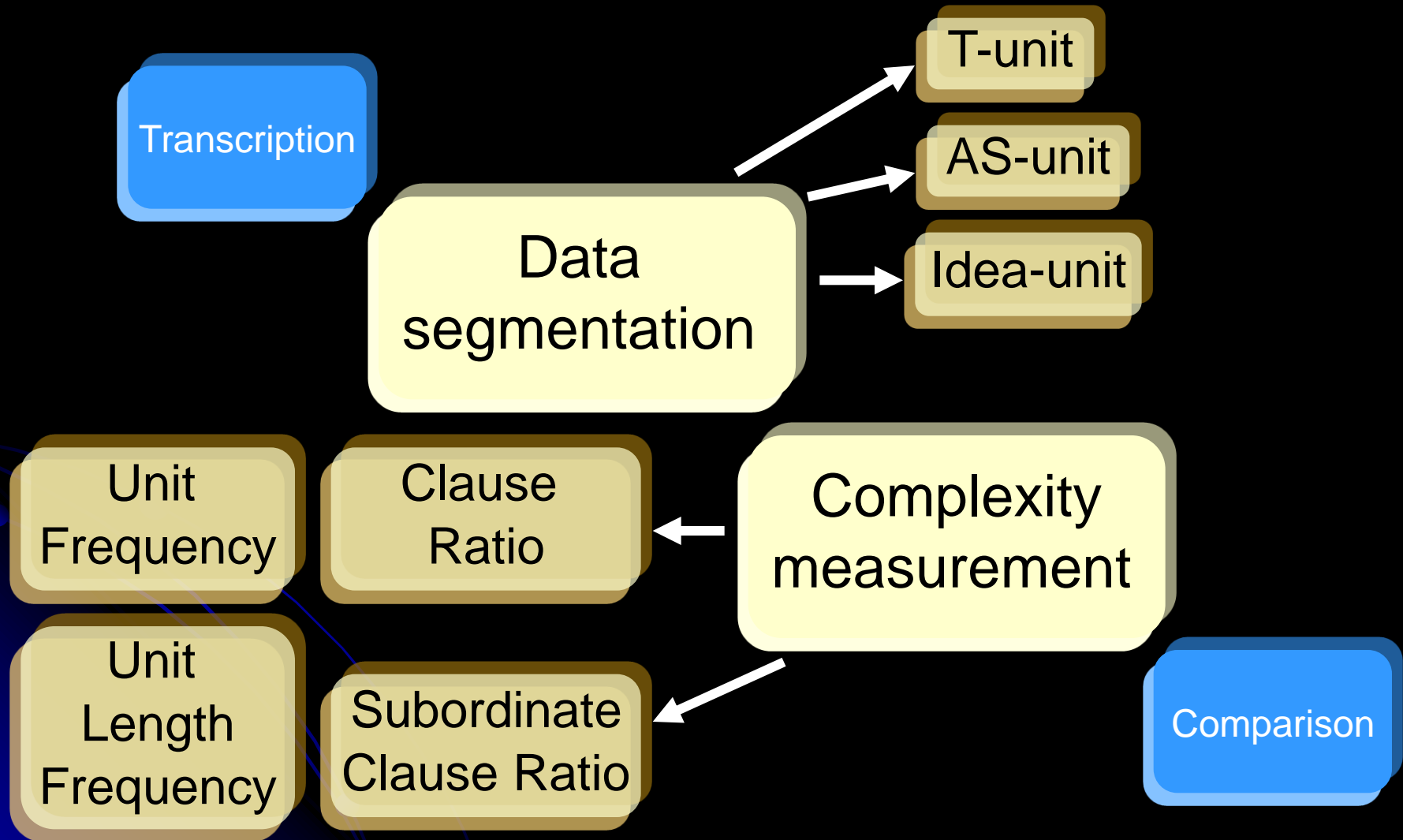**Learners' oral explanatory productions in the target language (English)**

METHODOLOGY: PARTICIPANTS

- 2 learners: Laura and Montse

- Age: 15-16 years

- L1: Catalan and Spanish
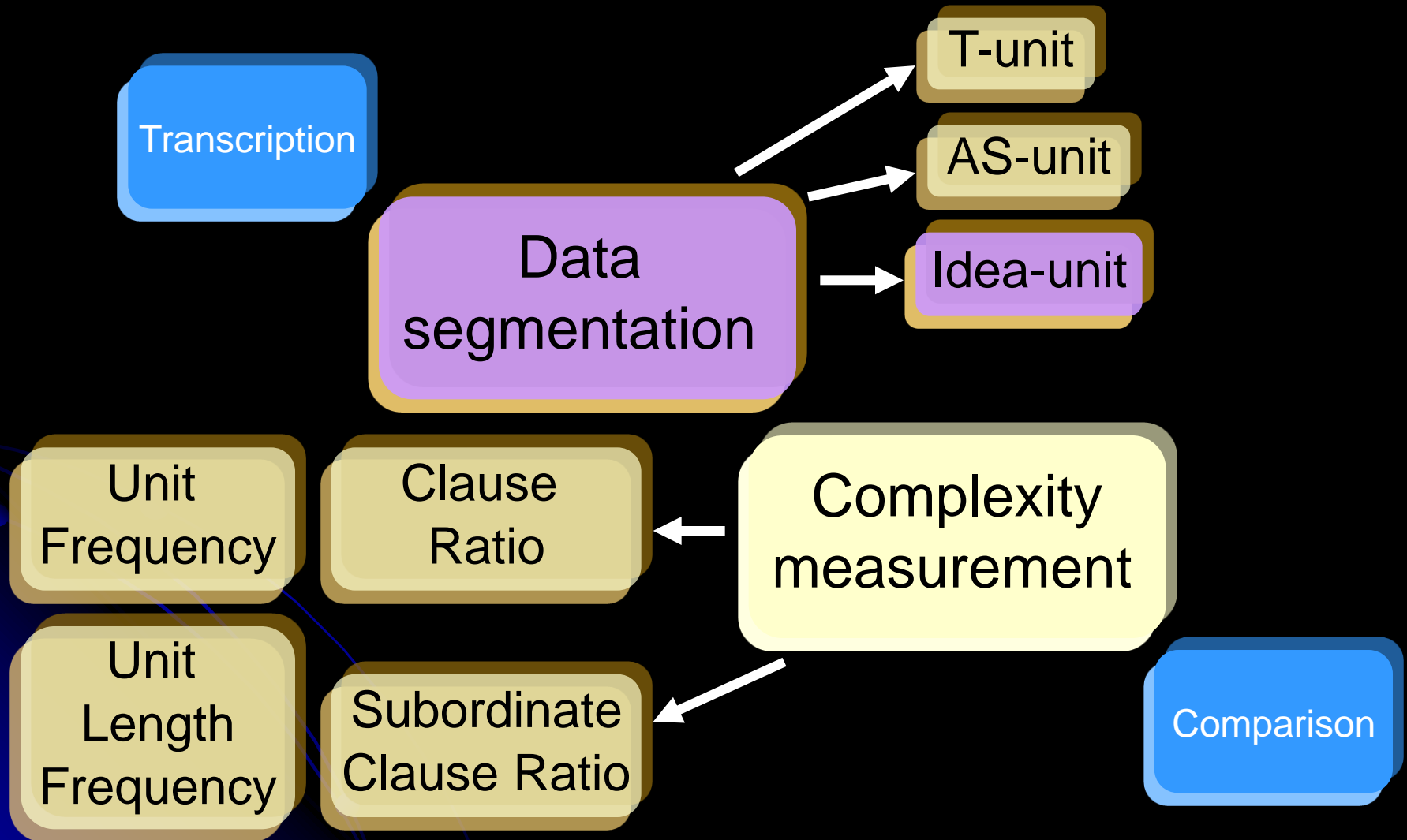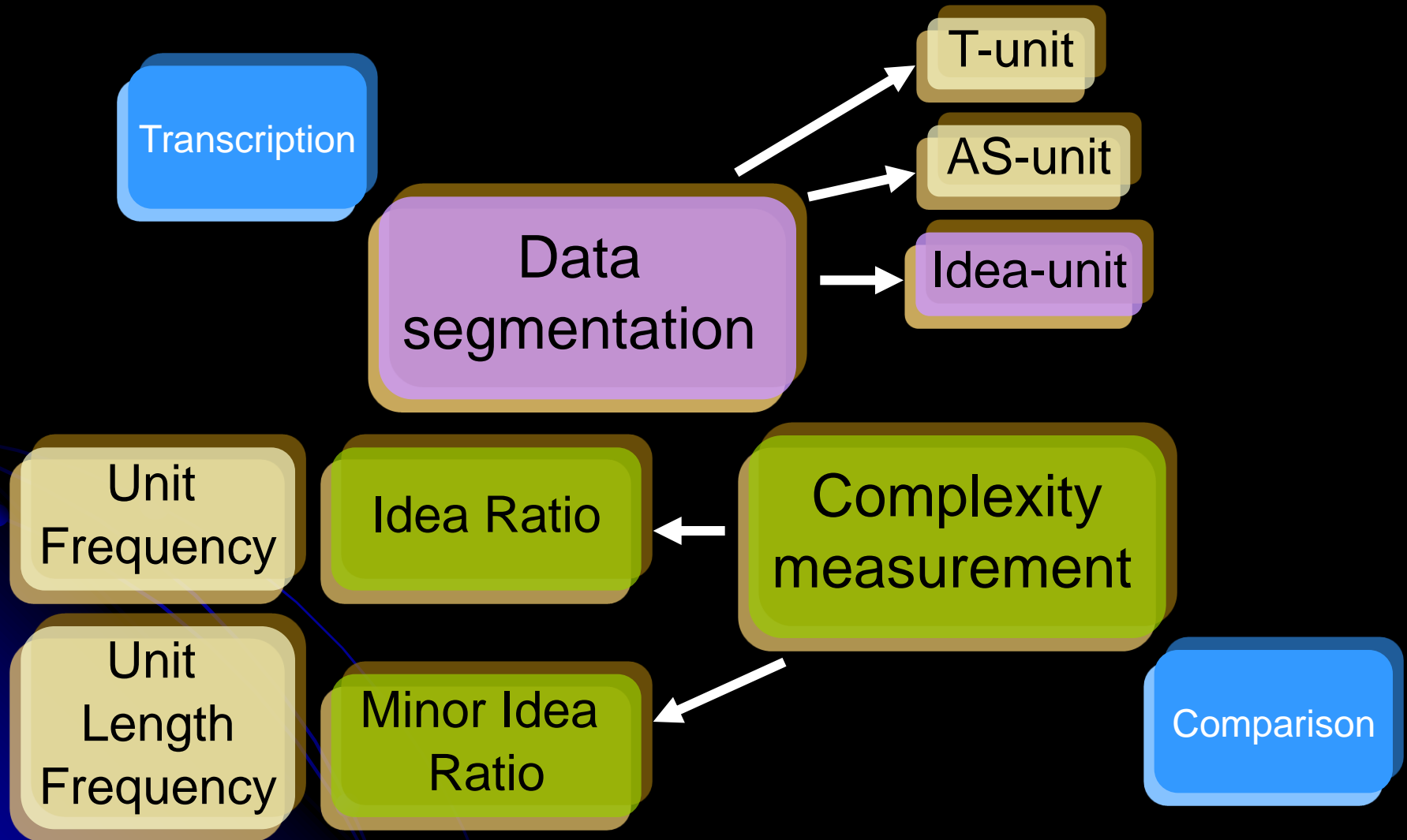
- Level of English: A1-A2

METHODOLOGY: ANALYTIC PROCEDURES

Transcription

Data segmentation

T-unit

AS-unit

Idea-unit

Unit Frequency

Clause Ratio

Complexity measurement

Unit Length Frequency

Subordinate Clause Ratio

Comparison

METHODOLOGY: ANALYTIC PROCEDURES

Transcription

Data segmentation → T-unit

Data segmentation → AS-unit

Data segmentation → Idea-unit

Unit Frequency

Clause Ratio ← Complexity measurement

Unit Length Frequency

Subordinate Clause Ratio ← Complexity measurement

Comparison

METHODOLOGY: ANALYTIC PROCEDURES

Transcription

Data segmentation

T-unit

AS-unit

Idea-unit

Unit Frequency

Idea Ratio

Complexity measurement

Unit Length Frequency

Minor Idea Ratio

Comparison

ANALYSIS

Excerpt 1 (PRETEST): non-segmented

e: and the principal: place is in the- is the Amazon and is in South America. e: the weather is ↑wet a::nd there (.) rains a lot.

<…>

e:: (2.5) e: the:y- (.) e: they does- they don't (.) <wear (.) our (.) clothes, and they wear e: another clothes. the:y- the:y put earrings i:n the: noses, mouth and in a lot of parts of the- of their body.>

ANALYSIS

Excerpt 1 (PRETEST): segmented into Idea-units

I. Hesitation phenomena (blue):

4. e: and the principal: place is in the- is the Amazon and is in South America.

5. e: the weather is ↑wet a::nd there (.) rains a lot.

<…>

10. e:: (2.5) e: the:y- (.) e: they does- they don't (.) <wear (.) our (.) clothes, and they wear e: another clothes.

11. the:y- the:y put earrings i:n the: noses, mouth and in a lot of parts of the- of their body.>

ANALYSIS

Excerpt 2 (POSTTEST): non-segmented

e: (..) and- (.) e: we have to::- we have to:- protect these- the:- these animals because e: some animals are:- only live <u>there</u> in rainforests. e:: (2.5) we h- e: we have to create r- natural reserves a:nd (.) don't kill animals for fun, and the: indigenous only kill for- for <u>eat</u> not for fun. e: the same of creatures.

ANALYSIS

II. **Verbless structures (unit boundaries) (orange):**

6. e: (..) (an-) (.) e: we have to::- we have to: protect these- the:- these animals because e: some animals are:- only live there in rainforests.

7. e:: (2.5) we h- e: we have to create r- natural reserves a:nd (.) don't kill animals for fun, and the: indigenous only kill for- for eat not for fun. e: the same of creatures.

ANALYSIS
Excerpt 3 (POSTTEST): non-segmented

and it's very important that we replant the:- these trees. if we cut down- if the coachers cut down a tree they could- they replant, for example, two or three new trees. and then e: if we: and if they did it (.) the:- the Amazonia never ↑die and the trees (.) of Amazonia never d- never- (.) m:: disappear.

ANALYSIS

Excerpt 3 (POSTTEST): segmented into Idea-units

III.   Reformulated false starts and subordinate clauses (green):

11. and it's very important that we replant the:- these trees. if we cut down- if the coachers cut down a tree they could- they replant, for example, two or three new trees.

12. and then e: if we: and if they did it (.) the:- the Amazonia never ↑die and the trees (.) of Amazonia never d- never- (.) m:: disappear.

ANALYSIS: RE-SEGMENTATION I

- 2 methodological principles proposed for *AS-unit* (Foster, Tonkyn & Wigglesworth 2000):

- **Intonation principle**: 'a message segment' to be separated from the next unit by:

    falling intonation + pause ≥ 0.5 sec

ANALYSIS: RE-SEGMENTATION II

- **<u>Problematic cases</u>**:
- Separate incomplete / incomprehensible Idea-units → to be included into the previous unit to which they were related.
- Self-repaired Ideas → to be considered Idea-units only those elaborated into a minimally understandable utterances.
- Self-repaired versions + a comprehensible version = one Idea-unit

CONCLUSIONS: SEGMENTATION

Idea-unit

Advantages:	Problems:
interest in the propositional aspect of the language produced: • hesitation phenomena	definition's impreciseness in respect to: • 'Ideas' extent & unit boundaries • reformulated false starts and subordinate clauses → tested twice

only after the tool's refinement and the data re-segmentation, it started to function more accurately, precisely & effectively

CONCLUSIONS: MEASUREMENT

Subject	Measure	Progress	Significance
Laura	UF	5	-
	ULF	9.05	**.046**
	IR	0.45	.327
	MIR	0.11	.716
Montse	UF	9	-
	ULF	2.61	.322
	IR	0.07	.823
	MIR	0.15	.260

Note: UF = Unit Frequency; ULF = Unit Length Frequency; IR = Idea Ratio; MIR = Minor Idea Ratio

Thank you very much!

E-mail: Natalia.Evnitskaya@uab.cat