


KEEL(EÕPE) MUUTUVAS MAAILMAS /
LANGUAGE (TEACHING & LEARNING) IN A CHANGING WORLD

Scrutinising the evidence

What can a data-driven approach contribute to
our understanding of language use
and development?

Geraldine Mark 23 April 2026



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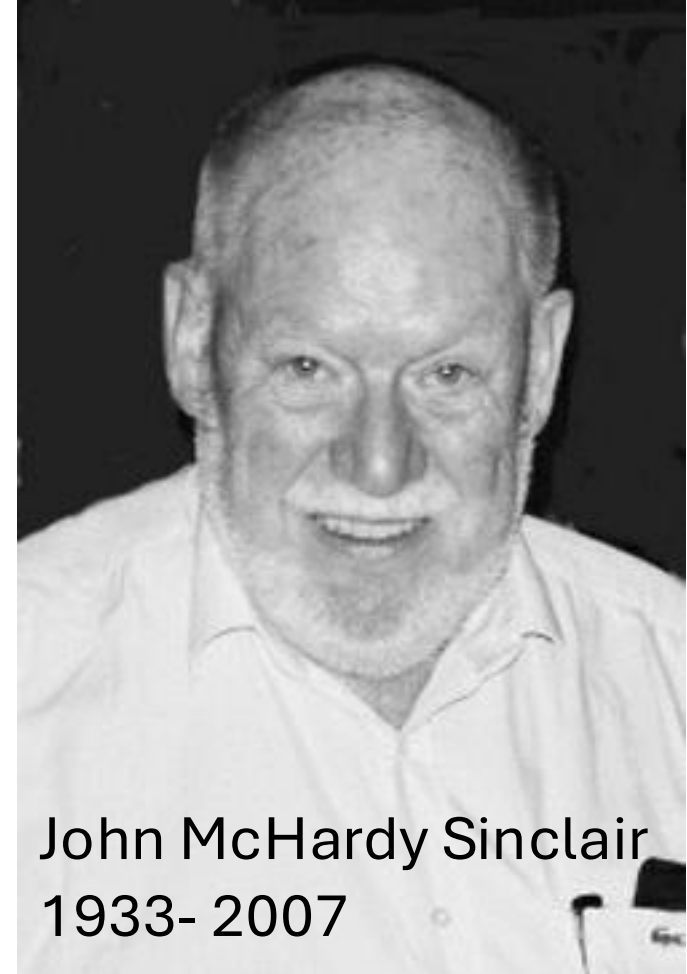
Täna teid!

Corpus linguistics: stepping back in time

Language looks rather different when you look at a lot of it at once.

*Analysis of **extended naturally-occurring texts**, spoken and written have revealed **quite unsuspected patterns of language**.*

(Sinclair, 1991: xvii, 1, 2, 4, 100)

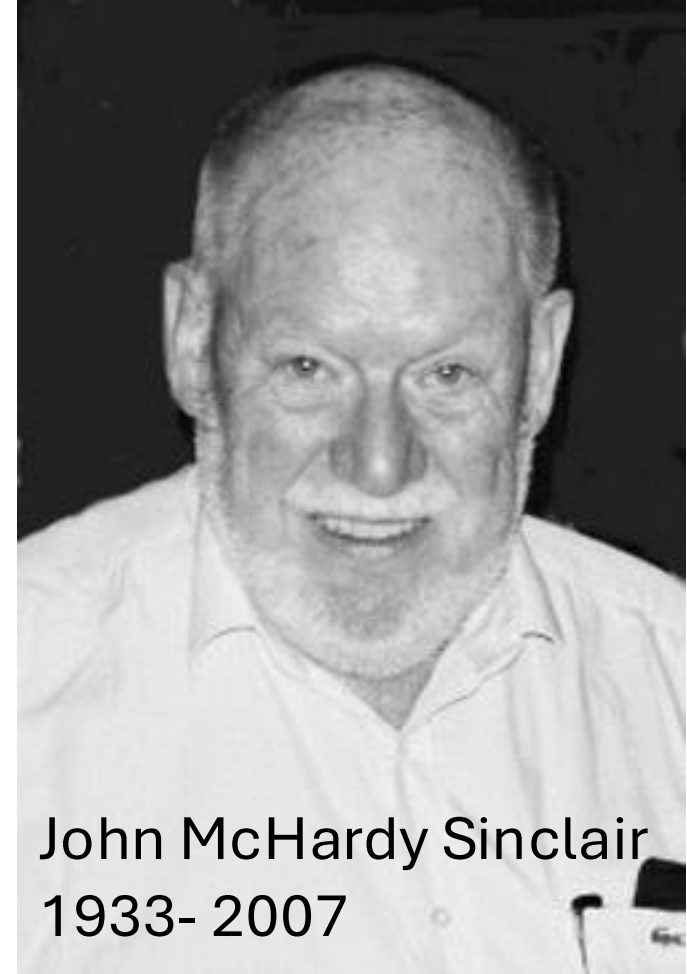


John McHardy Sinclair
1933- 2007

Corpus linguistics: stepping back in time

*It is my belief that a new understanding of **the nature and structure of language** will shortly be available as a result of the examination of **large collections of text**.*

(Sinclair, 1991: 489)



John McHardy Sinclair
1933- 2007

Changing worlds since 1990s

- Sophisticated tools and methodologies for the study of language
- Speed of processing
- Data size



The landscape, the context

Changing worlds





Not just any old collection

- A principled collection of ‘texts’
- Representative sample
- Stored digitally
- Available for quantitative and qualitative analysis
- Using specialised software



What evidence?

What data?

- * availability of data
- * Increasing ability to record large bodies of new evidence about how language is used
- * the contrast between impressions and evidence

What can this evidence tell us about language development and language use?

“Unsuspected patterns”

- Change
- Difference
- Frequency
- Distribution



Estonian	Estonian Corpus for Learners 2020 (etSkELL)	280,572,215	...
Estonian	Estonian coursebook corpus 2018	121,114	...
Estonian	Estonian National Corpus 2021 (Estonian NC 2021, CoNLL format)	2,410,296,919	...
Estonian	Estonian National Corpus 2021 (Estonian NC 2021)	2,410,296,919	...
Estonian	Estonian National Corpus 2023 (Estonian NC 2023)	3,080,721,728	...
Estonian	Estonian Trends	279,394,468	...
Estonian	Estonian Web 2017 (etTenTen17)	658,558,136	...
Estonian	Estonian Web 2019 (etTenTen19)	508,447,009	...
Estonian	Estonian Web 2021 (etTenTen21)	725,832,092	...
Estonian	Estonian Web 2023 (etTenTen23)	1,508,458,913	...
Estonian	EUR-Lex 2/2016 parallel – Estonian		
Estonian	EUR-Lex judgments 12/2016 parallel – Est		
Estonian	Europarl spoken parallel – Estonian		



Monitor corpus: Change over time

2018-2026



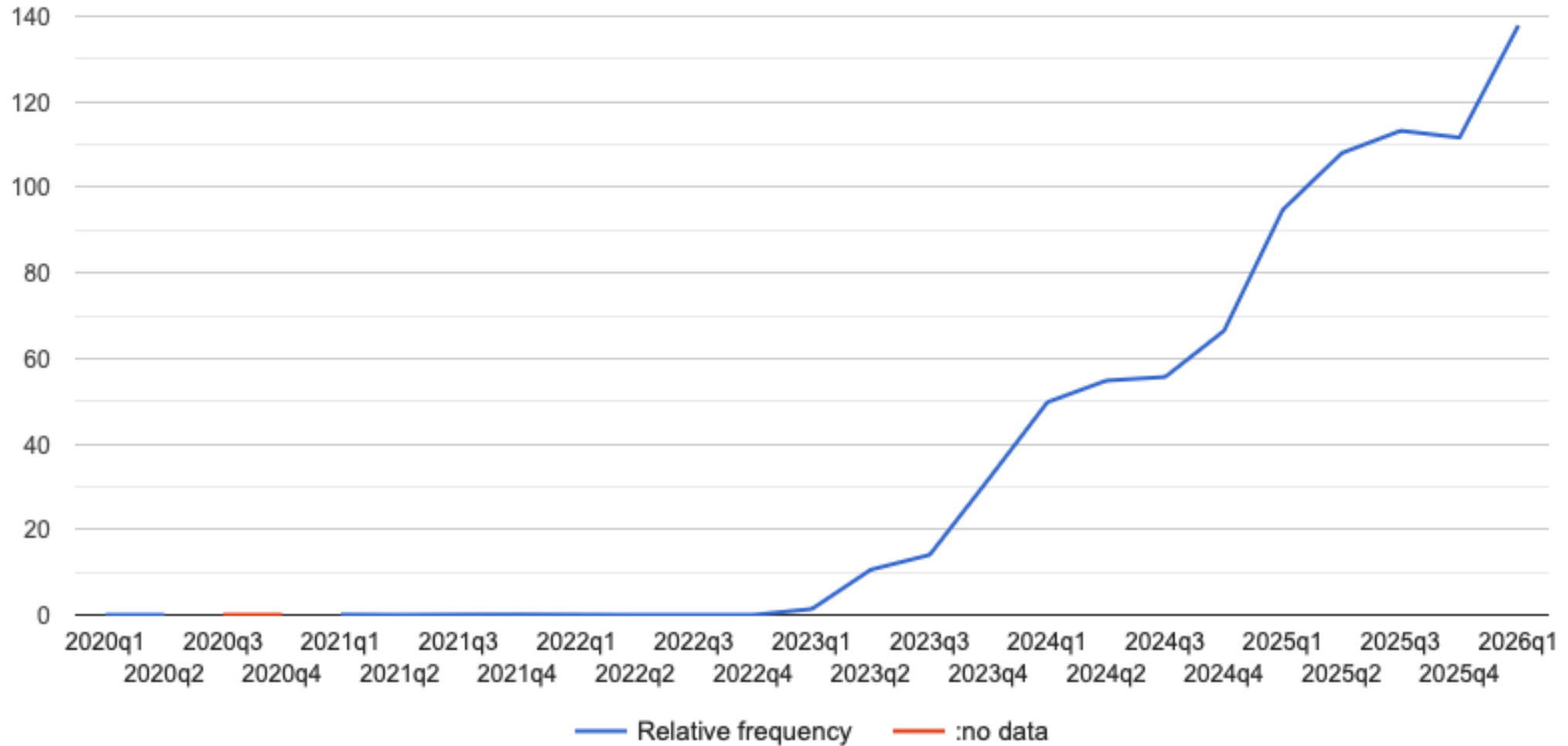
TRENDS

Estonian Trends

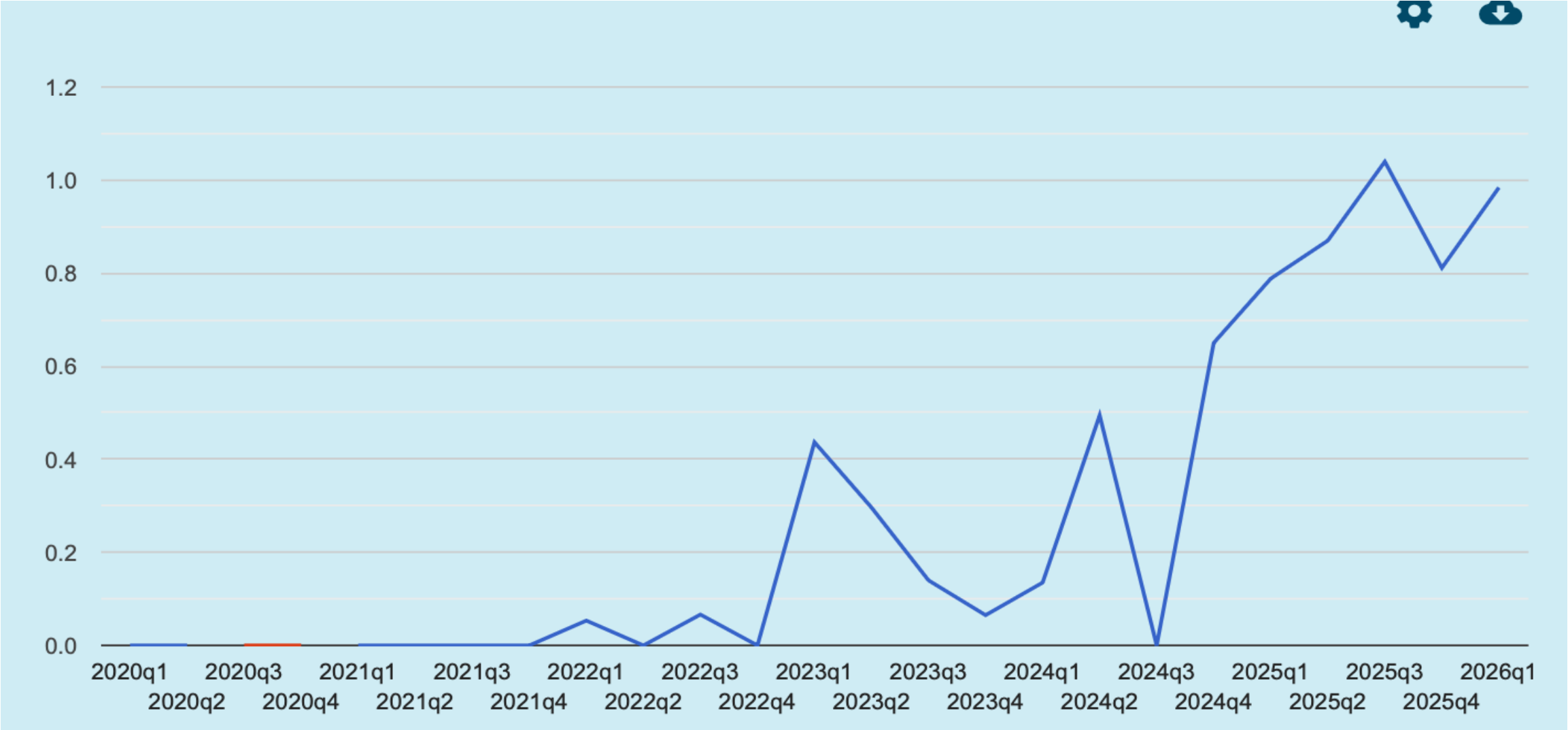


	Lemma	Trend ↓	Frequency	
1	tehisaru	↗	12,989	...
2	prompt	↗	102	...
3	aleksandr	↗	147	...
4	haigekassa	↘	6,404	...
5	regionaal	↗	2,433	...
6	raamatublogi	↘	119	...
7	fotoreis	↘	170	...
8	droonioperaator	↗	355	...
9	drooniüksus	↗	199	...
10	kaalulangetusravim	↗	401	...

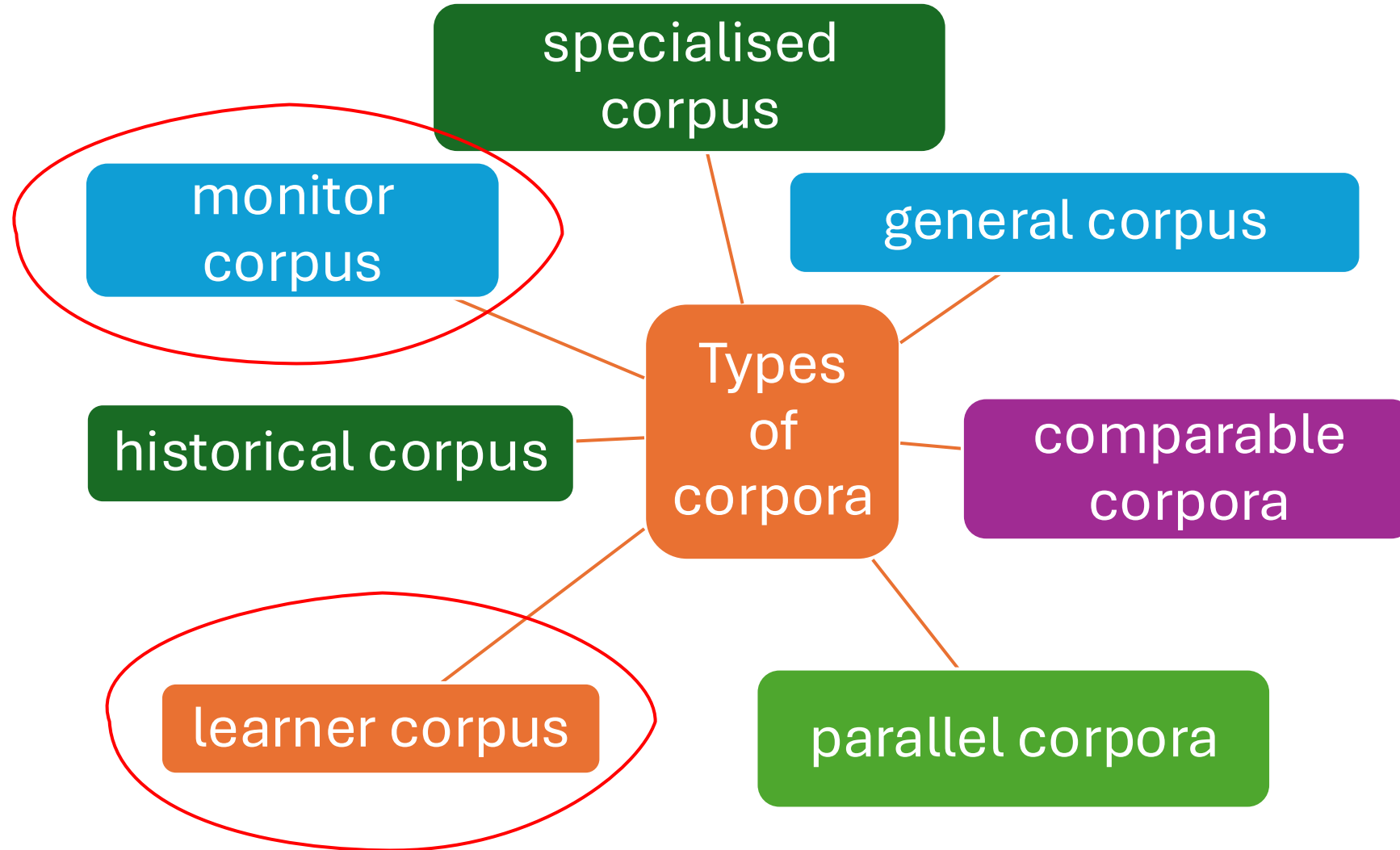
tehisaru 2018 - 2026



prompt 2018 - 2026



Types of corpora



Why use a learner corpus?

Contrastive tradition

language use between two sets of data L1:L2 and L2:L2

Development: language use across proficiency and time



What can learner corpora tell us about language learning?

Product and process
words, phrases, patterns
lexical, grammatical,
lexico-grammatical

Collocations

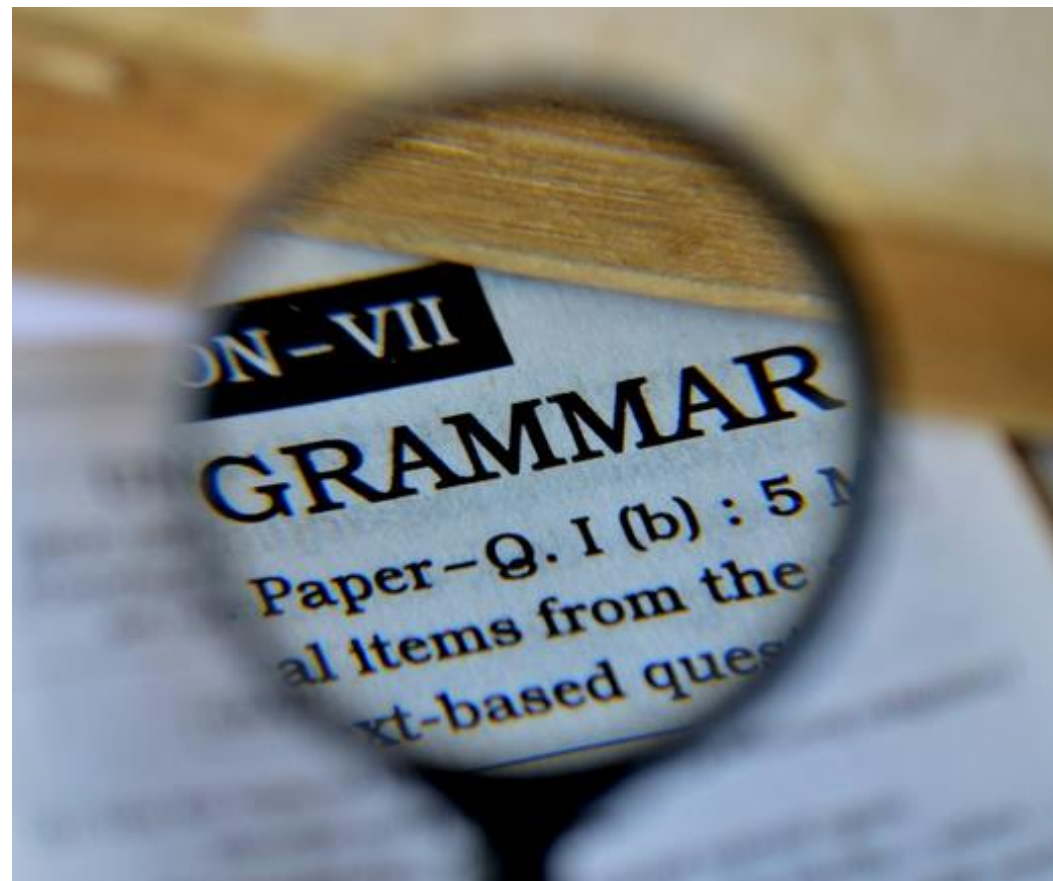
Colligations

Constructions



An example

What grammar do learners use in English at each level of the CEFR?



EnglishProfile

The CEFR for English

www.englishprofile.org



The background: our task

- To empirically describe what learners can do with grammar in English across the CEFR proficiency levels.
- To create a resource for English language teaching.

<http://www.englishprofile.org/english-grammar-profile/egp-online>



English Grammar Profile Online

Level

 A1 A2 B1 B2 C1 C2

Results 1 - 20 of 1239

Sort by:

SuperCategory

Ascending

20

SuperCategory	SubCategory	Level	Can-do statement	Example	Details
ADJECTIVES	combining	A1	FORM: COMBINING TWO ADJECTIVES WITH 'AND' Can use 'and' to join a limited range of common adjectives.	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	A2	FORM: COMBINING TWO ADJECTIVES WITH 'BUT' Can use 'but' to join a limited range of common adjectives, after 'be'.	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B1	FORM: BEFORE THE NOUN Can use a comma to combine two adjectives used before the noun, following the usual order of adjective types.	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B1	FORM: COMBINING COMPARATIVE ADJECTIVES WITH 'AND' Can use 'and' to join a limited range of comparative adjectives. ▶ adjectives: comparatives	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B1	FORM: COMBINING MORE THAN TWO ADJECTIVES	<input type="button" value="Example"/>	<input type="button" value="Details"/>



+

What do we *think* learners can do with grammar?

- intuition
- experience
- materials
- syllabi

•

What we *know* learners can do with grammar?

- evidence
- corpus-informed: Cambridge Learner Corpus
- written output

○



Simplistic view



The background: the challenge

Analysis and description of learner grammar competence

- across *six* proficiency levels within the CEFR.
- of *all* aspects of grammar for the ELT community.
- across all L1 backgrounds in the data.



The data: Cambridge Learner Corpus

Cambridge exams

Written data

aligned to CEFR

55 million+ words

32 million words error-coded

200,000+ exam scripts

Spanning 17 years

215 countries

143 first languages

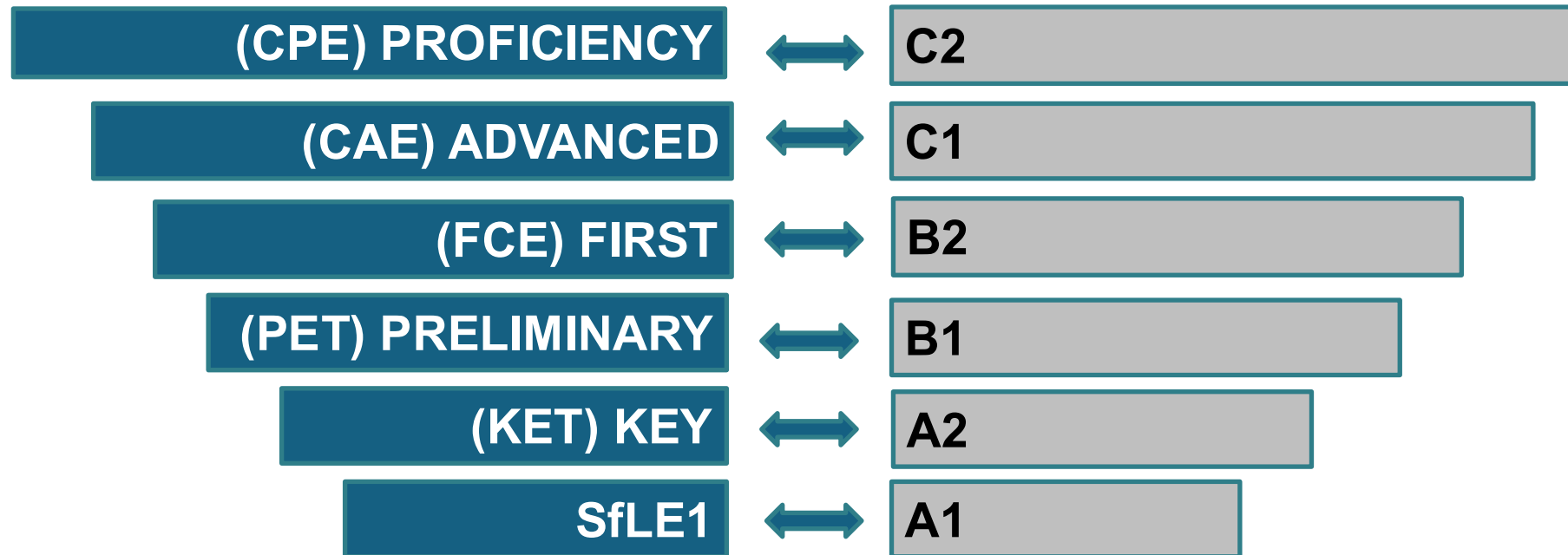
Metadata

Candidates: L1, nationality, age, gender, education

Exam: CEFR level of exam taken and exam performance

Task: question number, task style/format/register

The data: Cambridge exams & the CEFR



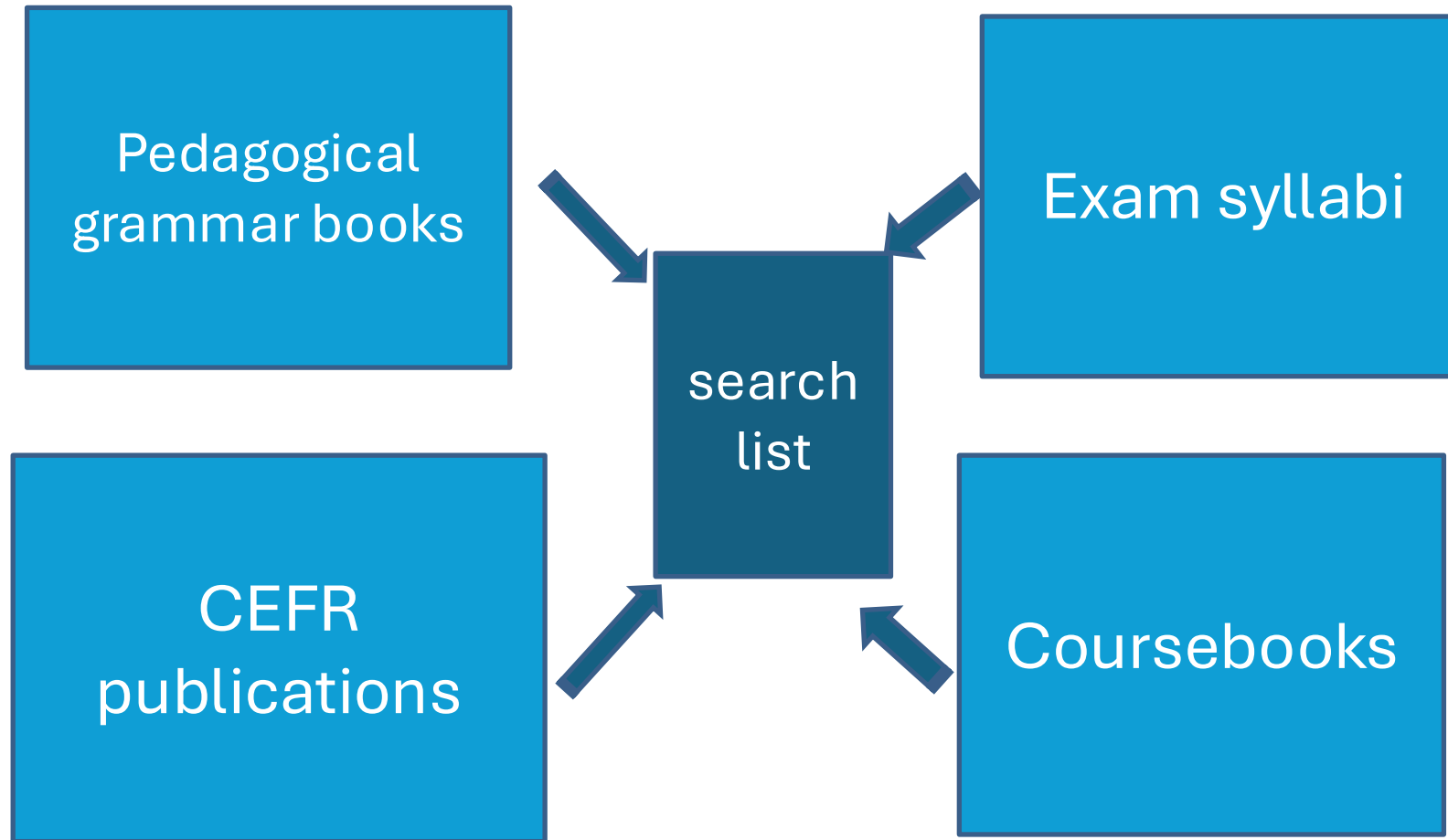
**Managing expectations of the industry:
a pedagogical approach**

How do we start to investigate?

Which way in to the data?



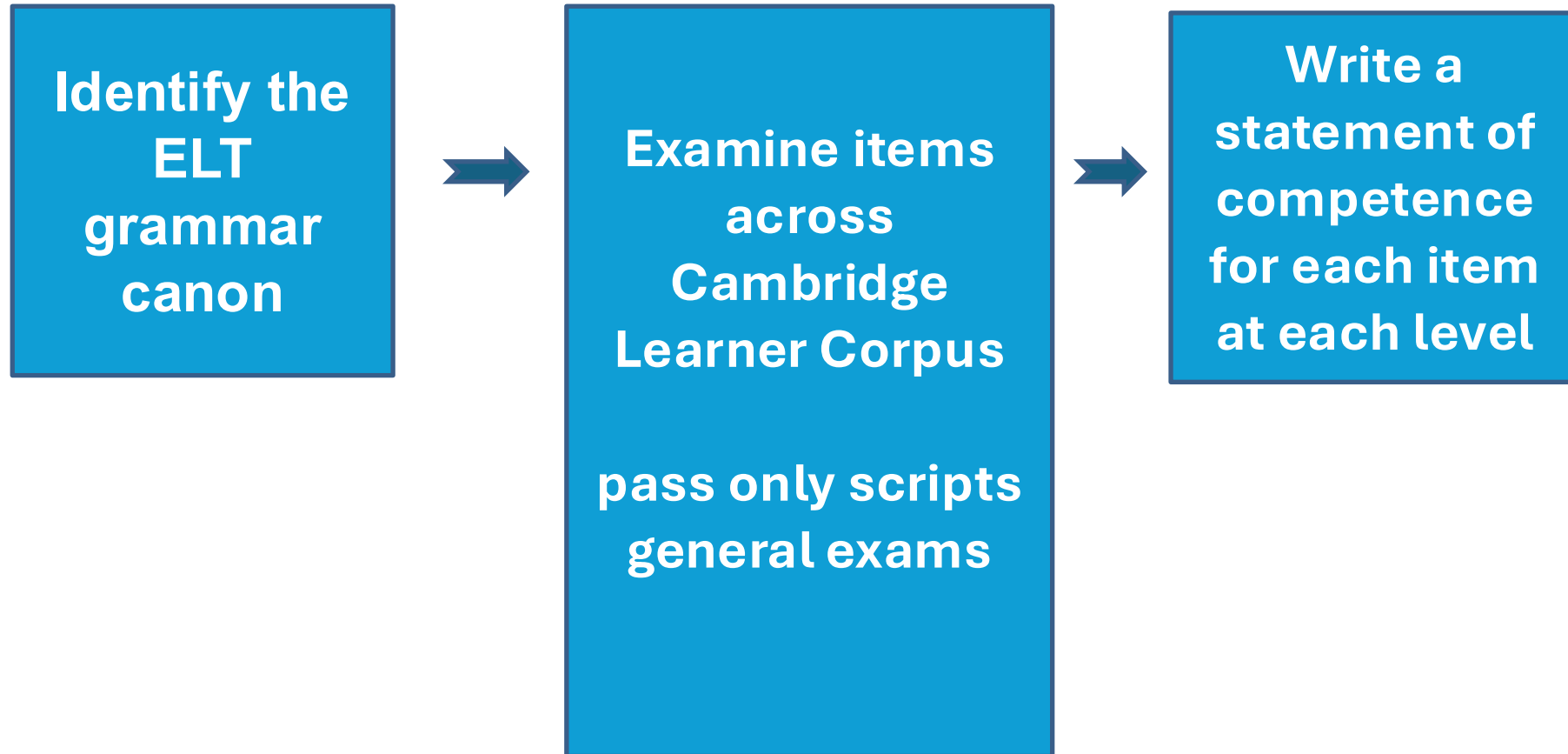
The methodology: starting points



The ELT 'grammar canon'



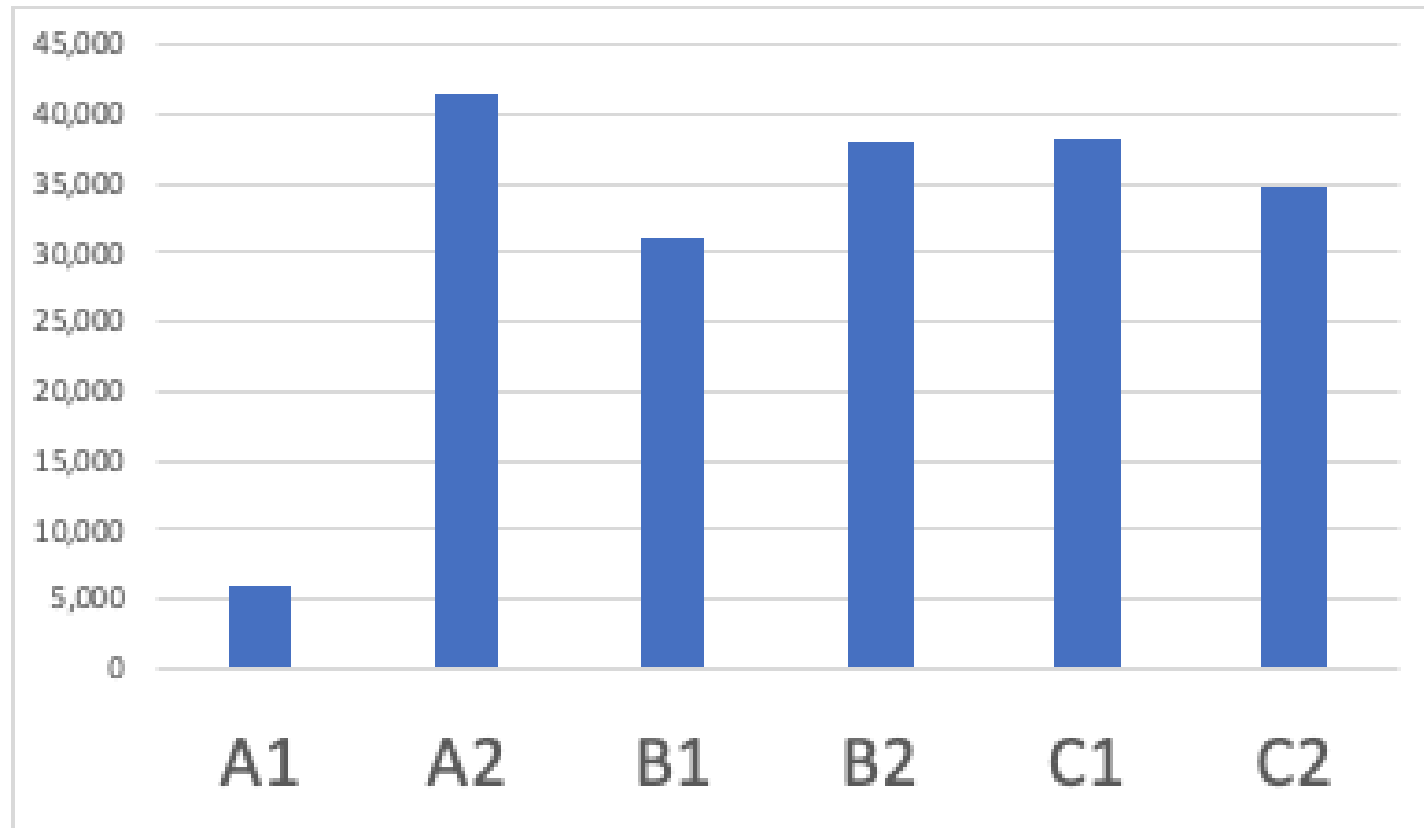
A linear top-down methodology



A linear top-down methodology



Modal verb *would*: frequency



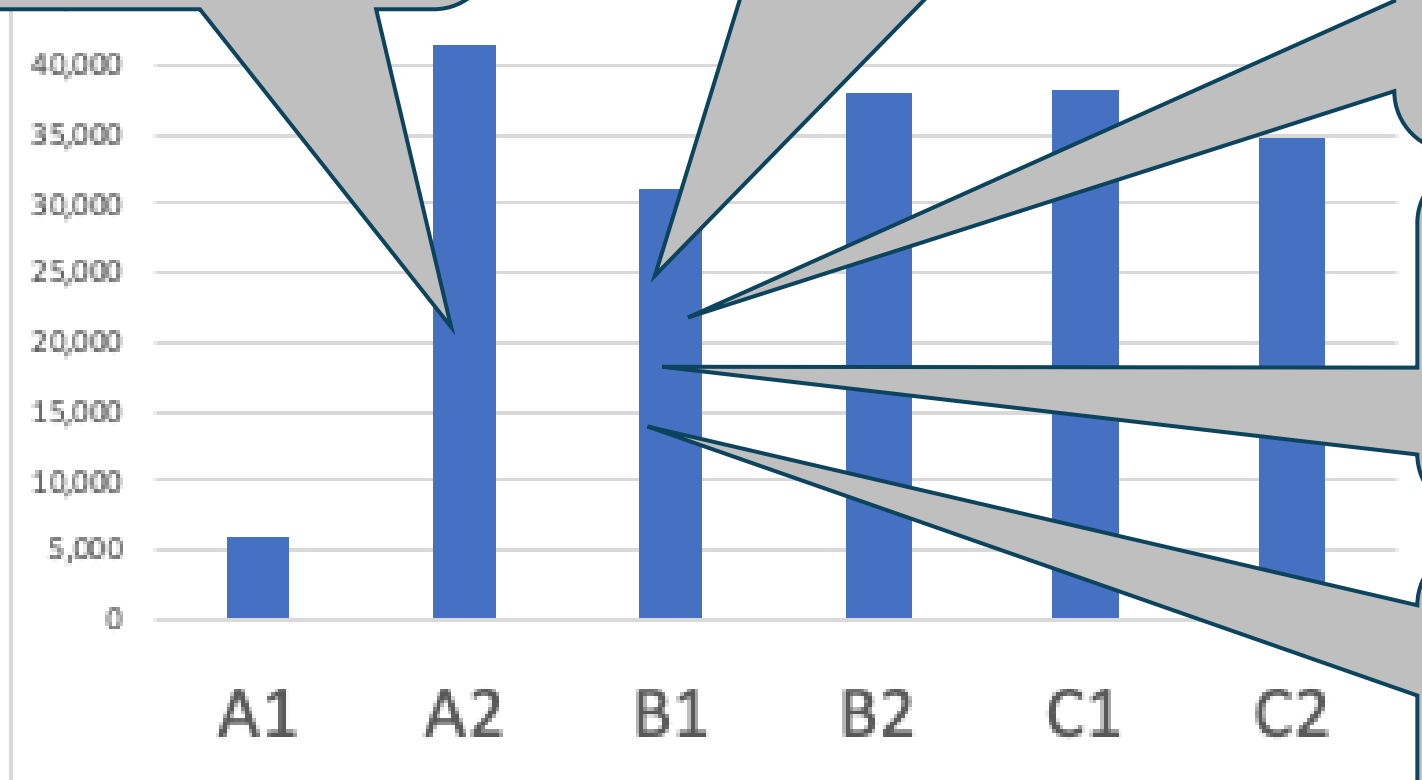
I would like to eat some Spanish food
(Italian, 2006)

It's your decision but if I had the chance, I would go with my friends.
(German 2008)

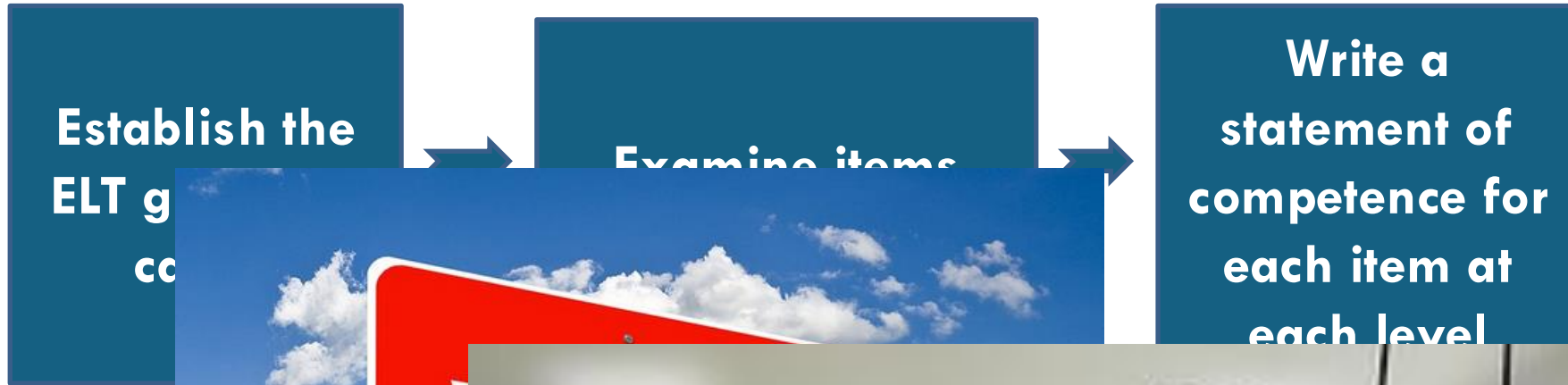
I would definitely choose to live by the seaside! (Chinese, 2010)

... we thought that the film would be horrible because of the title
(Portuguese, 2002)

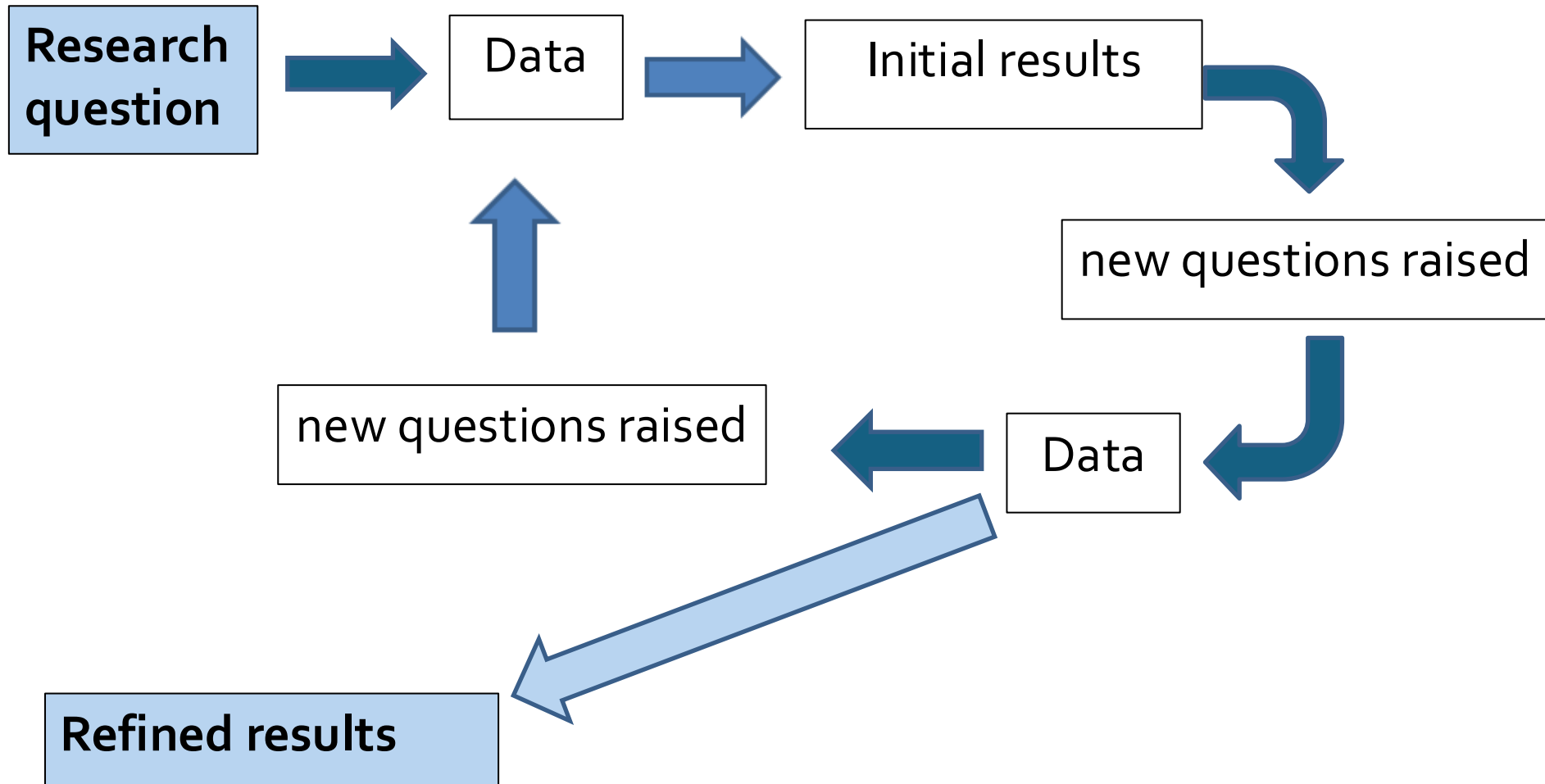
I felt better when he said that he would be in Fenerbahce. (Turkish, 2009)



A linear methodology: back to the drawing board



An iterative approach



**The insights:
'unsuspected patterns'**



The ELT 'grammar canon'



Waystage: CEFR

A2 Pronouns

2.1 demonstrative (3.1.1, 4.8.1.1, 4.8.1.2)

this, that, these, those

2.2 personal (3.1.1, 4.8.1.1, 4.8.1.2)

2.2.1 subject forms

I, you, he, she, it, we, they

2.2.2 non-subject forms

me, you, him, her, it, us, them

2.3 possessive (4.7.5.1, 4.8.1.1, 4.8.1.2)

mine, yours, his, hers, ours, theirs

The phone is not mine.

This road shouldn't be allowed in the middle of a small town like ours.

He was my confidant and I was his.

Theirs had always been a love-and-hate relationship.

Van Ek, J A and Trim, J L M (1991a) (1991b) *Waystage 1990*, Cambridge: Council of Europe/Cambridge University Press.

Cambridge ESOL (2009) *Key English Test Handbook for Teachers*.

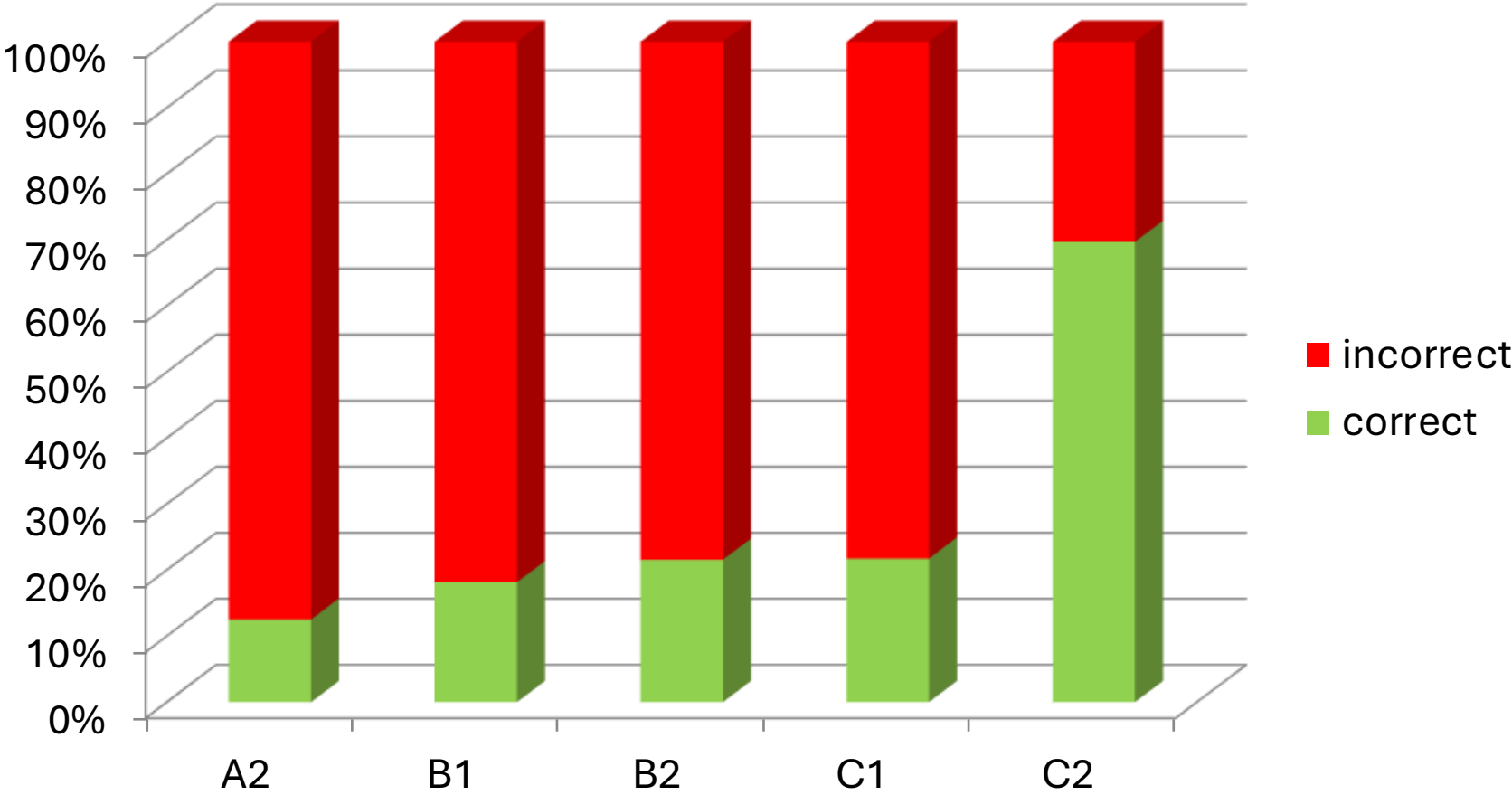
Possessive pronouns A2: frequency

Node form	raw freq		Node form	raw freq
his	20196		theirs	168
Yours	16700		hers	152
yours	3248		Mine	45
mine	1859		Ours	15
His	1595		Hers	3
ours	519		Theirs	2

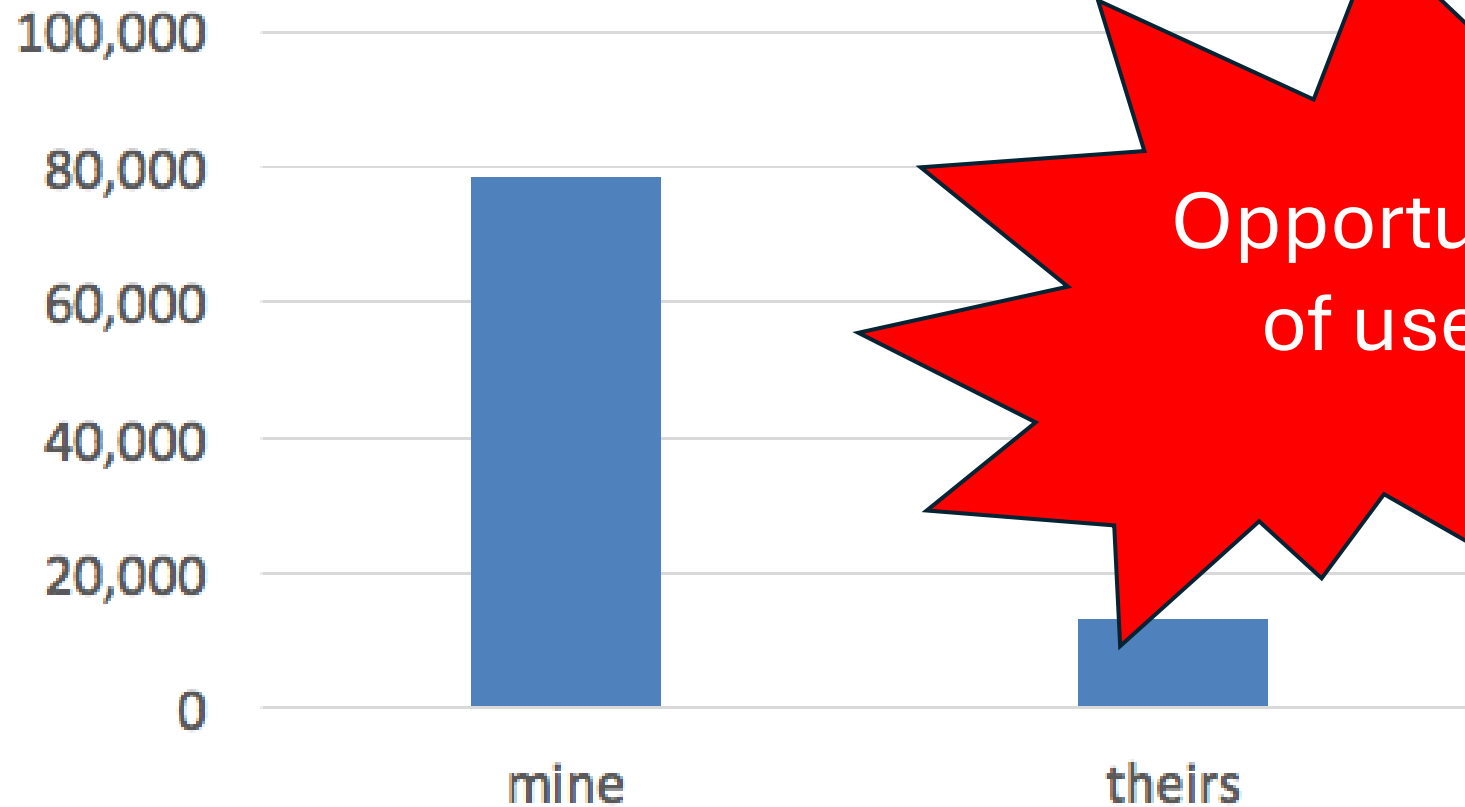
Mine/mine A2 examples

- I've just watched a football match between our teams and, of course, **mine** won ... (Portuguese)
- **Mine** is red. (Spanish – European)
- I bought a new jacket too, because **mine** was very old ... (Italian)
- I bought a pullover and trousers because **mine** are too small for me. (Korean)
- I enjoyed **mine** very much. (Tagalog)
- A **friend of mine** bought a very nice sweater for me. (Turkish)

theirs



Cambridge English Corpus: *mine/theirs*



Extract from A2 level coursebook

d Complete the sentences with the words in the box.

yours hers mine his theirs

- 1 It's my bed. → It's _____.
- 2 It's your lamp. → It's _____.
- 3 It's her sofa. → It's _____.
- 4 It's their mirror. → It's _____.
- 5 It's his chair. → It's _____.

e ▶ Now go to Grammar Focus 5B on **p.144**

5B Possessive pronouns and possessive 's

Possessive pronouns

Subject	Possessive adjective	Possessive pronoun ▶ 2.34
<i>I</i>	<i>my</i> <i>Those are my shoes.</i>	<i>mine</i> <i>Those are mine.</i>
<i>you</i>	<i>your</i> <i>These are your pens.</i>	<i>yours</i> <i>These are yours.</i>
<i>he</i>	<i>his</i> <i>This is his shirt.</i>	<i>his</i> <i>This is his.</i>
<i>she</i>	<i>her</i> <i>That's her bag.</i>	<i>hers</i> <i>That's hers.</i>
<i>it</i>	<i>its</i> <i>Those are its wheels.</i>	—
<i>we</i>	<i>our</i> <i>They're our cats.</i>	<i>ours</i> <i>They're ours.</i>
<i>they</i>	<i>their</i> <i>They aren't their cats.</i>	<i>theirs</i> <i>They aren't theirs.</i>

▶ 2.35

We use possessive adjectives (e.g. *my*, *your*) before nouns:

*Is this **your** hat?*

We use possessive pronouns (e.g. *mine*, *yours*) in the place of a possessive adjective and a noun:

*Is this **yours**?*

We can ask about possession with the word *whose*:

***Whose** hat is this? / **Whose** is this hat?*

Tip

- Be careful with *it's* (= *it is* / *it has*) and *its* (= possessive adjective).
- Be careful with *who's* (= *who is* / *who has*) and *whose*.



Possessive 's ▶ 2.36

We add an apostrophe (') + *s* to a singular noun or a name to show possession:

My sister has a car. It's my sister's car.

If a plural noun already ends in *-s*, we just add an apostrophe after the *-s*:

My grandparents have a house. It's my grandparents' house.

Other uses of 's

- We also use 's as a contraction of *is* or *has*:
He's (= He is) very lucky. He's (= He has) got four brothers.

**Though grammar has
been taught to apply
to a 'set' ...
it is not necessarily
learnt or used
successfully as a set**



Traditional paradigm: conditional clauses

If I have spare time I always read a book. (A2; 2004; Turkish)

If you live in the countryside you will see beautiful nature.
(B1; 2008; Thai)

Maybe it would be more fun if you went with your friends.
(B1; 2008; Portuguese)

If they had not been there, I would have been very lonely.
(B1; 2001; Vietnamese)

Clauses expressing condition (27 in EGP!)

A2	4
B1	10
B2	1
C1	4
C2	8

If you find it, call me (A2)

Is it possible to pay by card? If so, which ones do you take?

If you're really eager to learn age doesn't really matter as long as you're willing to learn. (B2)

Should there be a lack of mutual understanding a break-up is unavoidable. (C1)

Were it not for my university, I would give up this class immediately (C2)

**Evidence makes
us question
traditional
paradigms**

**Learners may
know more
'grammar' than
we think**



Some past perfect grammar patterns

Had I + past participle

No sooner had ...

Never before had ...

Hardly had ...

Had I known the tour would be so bad, I wouldn't have booked it.

(C1 EFFECTIVE OPERATIONAL PROFICIENCY; 1998; French)

But, no sooner had I got there than my classmates informed me that I had done well in my physics exam.

(Greek; B2 VANTAGE; 2002)

Never had I been in such a ridiculous situation!

(B2 VANTAGE; 1993; Italian)

Hardly had she spoken these words when it dawned on the musician that life could not continue like that.

(C2 MASTERY; 1998; Spanish - European)

Comparison of frequency

	BNC written
<i>Had I + past participle</i>	10.5 per million
<i>No sooner had ...</i>	0.8 per million
<i>Never before had ...</i>	0.3 per million
<i>Hardly had ...</i>	0.0 per million

Comparison of frequency

	BNC written	Cambridge Learner Corpus
<i>Had I + past participle</i>	10.5 per million	1.1 per million
<i>No sooner had ...</i>	0.8 per million	5.6 per million
<i>Never before had ...</i>	0.3 per million	1.2 per million
<i>Hardly had ...</i>	0.0 per million	1.1 per million

**Learners use some
grammar patterns more
than L1 speakers ...**

What does that tell us?



**Grammatical
development**

≠

**Only through new
structures**

**Grammatical
development**

=

**Same structures
New uses**

adverbs (69 in EGP)

*Take care. See you **soon**.*

***Sometimes** I go to the beach. (A1)*

*If I were you I'd **certainly** choose not to go with your parents.
(B1)*

***Apparently** someone made a mistake writing the details I
gave over the phone. (C1)*

*He was quite nice to me, **surprisingly** and he
told him that he would do his best but that the
music was not too loud. (C2)*

adverb + adjective: collocations and colligations

	PMW
C2	6649
C1	4514
B2	3330
B1	2919
A2	635
A1	199

*It is **painfully obvious** that it will rescue our city from pollution and fumes...*

*It is **highly unlikely** that the goods can vanish from your warehouse without being noticed.*

*I'm **really happy** to see you.*

*It is **really nice** that you come to visit me.*

*My home is **very nice**.*

*This is a **very nice** neighbourhood.*

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**Advanced
learners show
dexterity in
language use**



**Advanced
grammar isn't
about learning
new structures**



Lexico-grammatical development

Past simple: Student performance		
	Raw frequency	PMW
A1	63,508	27,151
A2	244,043	28,601
B1	209,997	24,391
B2	288,339	25,715
C1	235,808	25,760
C2	222,208	27,795

Past simple

*She **was** a teacher in Iraq. (A1, Kurdish)*

*It **was** a pretty bag. I **liked** it very much (A1, Chinese)*

*Last night I **went** to the disco. (A1, Spanish)*

Can use common regular and irregular verbs in the past simple, to talk about some everyday events or states in the past.

*He always **seemed** so confident to me!*

(Brazil; B1, 2002; Portuguese)

Can use the past simple to talk about habitual states or actions.

Past simple

*I **wanted** to know if the rooms are single or double, if they have showers and if there is room service. ...*

(B2, FCE, Spanish – European)

Can use ***I wondered*** and ***I wanted***, as politeness structures, when making polite requests and thanking.

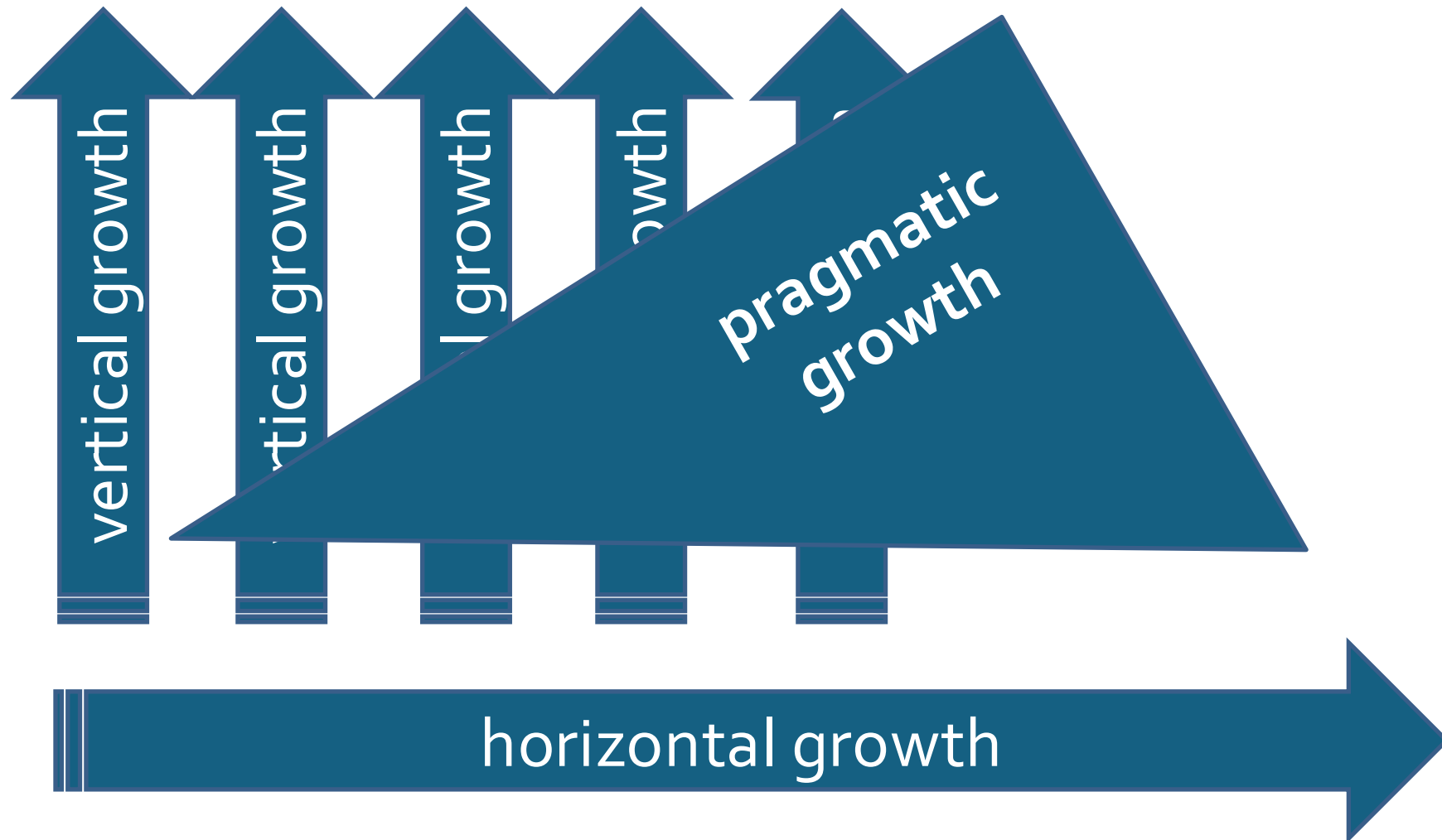
*It is true that it **did rain** during the day but it was not a "sudden downpour", as you wrote. It was more a small shower ... (C1, CAE, Swedish)*

Can use emphatic ***did*** to defend arguments and refuting inaccuracies.

**Learners gain pragmatic
understanding of
structures as they move
through the levels**



What does developing competence look like?



The insights: unsuspected patterns

Grammar taught as a 'set'
it is not always learnt or used as a set

Learners may know more 'grammar' than we think

Learners use some grammar patterns more than L1 speakers

Learners gain pragmatic understanding of structures as they move through the levels

Advanced grammar isn't all about new structures

Advanced learners show dexterity in language use



The result

A database resource of 1,222 grammar descriptors across the six levels of the CEFR

<http://www.englishprofile.org/english-grammar-profile/egp-online>

The image displays a screenshot of the EnglishProfile website, which is a database resource for grammar descriptors. The top part of the image shows a list of descriptors, each with a level (A1, B1, B2, C1) and a description of the grammar point. The bottom part shows the search interface, including a search bar, filters, and a table of results.

EnglishProfile
The CEFR for English

English Grammar Profile | EGP Online | Terms of Use | Grammatical Categories | Glossary

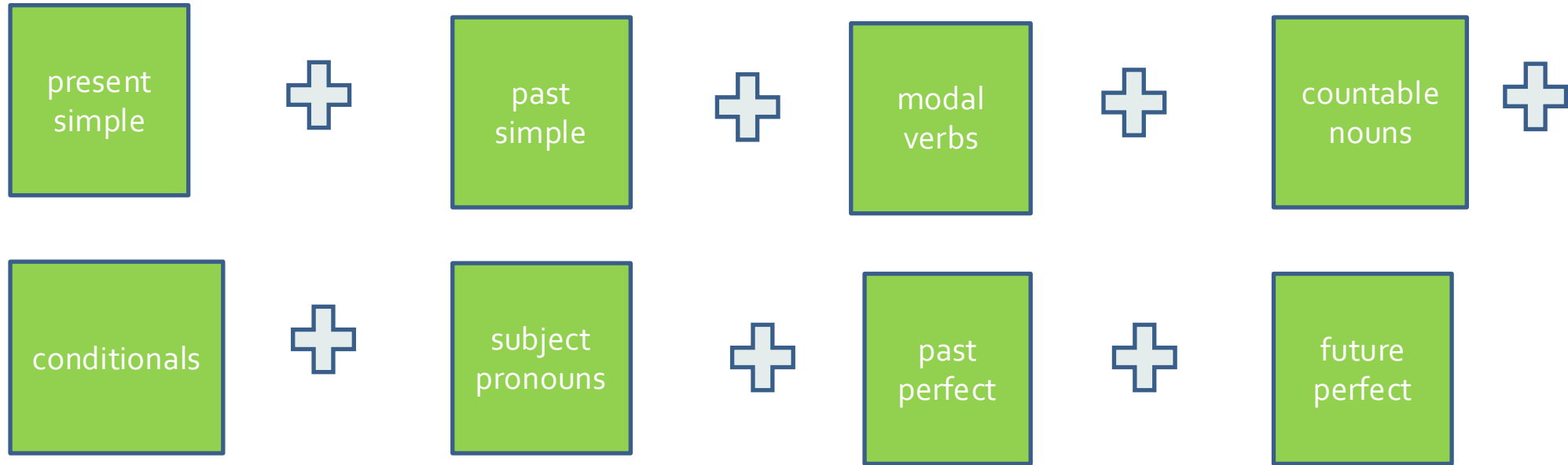
English Grammar Profile Online

Search... Level A1 A2 B1 B2 C1 C2

Results 1 - 20 of 1239 Sort by: SuperCategory Ascending 20

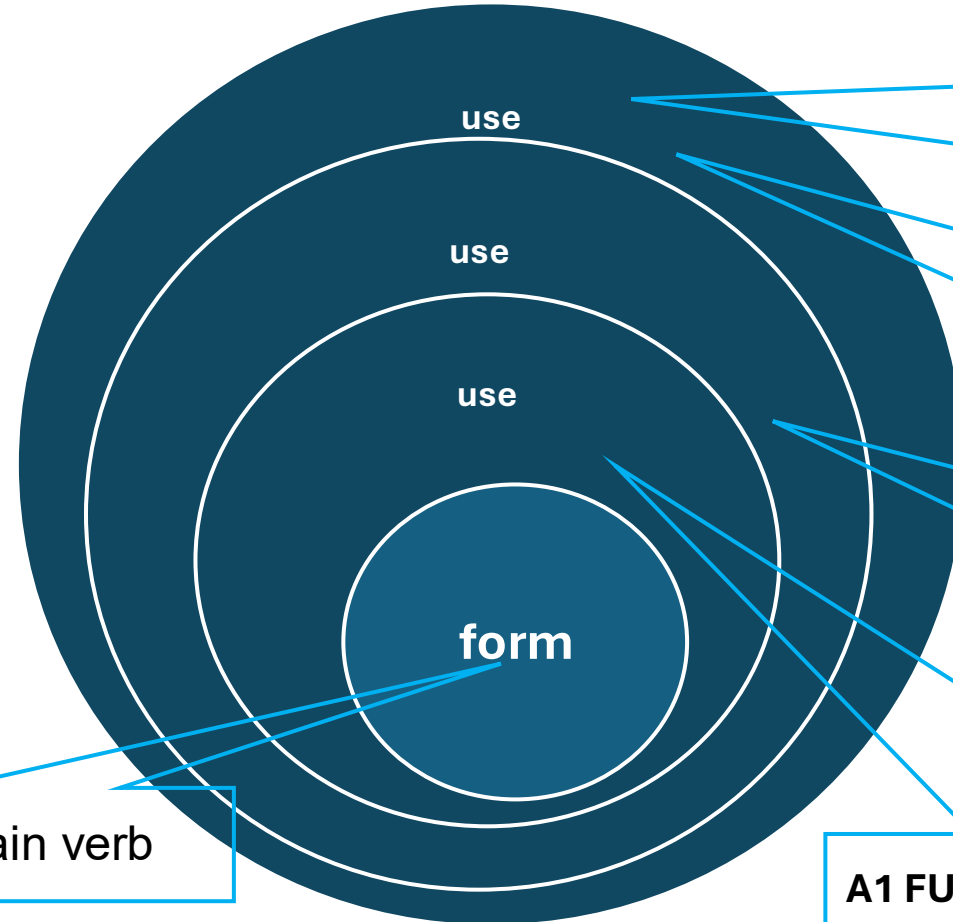
SuperCategory	SubCategory	Level	Can-do statement	Example	Details
ADJECTIVES	combining	A1	FORM: COMBINING TWO ADJECTIVES WITH 'AND' Can use 'and' to join a limited range of common adjectives.	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	A2	FORM: COMBINING TWO ADJECTIVES WITH 'BUT' Can use 'but' to join a limited range of common adjectives, after 'be'.	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B1	FORM: BEFORE THE NOUN Can use a comma to combine two adjectives used before the noun, following the usual order of adjective types.	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B1	FORM: COMBINING COMPARATIVE ADJECTIVES WITH 'AND' Can use 'and' to join a limited range of comparative adjectives: comparatives	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B1	FORM: COMBINING MORE THAN TWO ADJECTIVES WITH 'AND' Can use commas and 'and' to join more than two comparatives	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B1	FORM: COMBINING THE SAME COMPARATIVE ADJECTIVES WITH 'AND' Can use 'and' to repeat a comparative adjective change over time, usually after 'become' or 'change over time'.	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B2	FORM: COMPOUND ADJECTIVES Can use a limited range of compound adjectives ('well-known')	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B2	FORM: COMPOUND ADJECTIVES Can use an increasing range of compound adjectives ('state-of-the-art')	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	B2	FORM: PHRASES MODIFYING ADJECTIVES Can use adjective phrases to modify adjectives	<input type="button" value="Example"/>	<input type="button" value="Details"/>
ADJECTIVES	combining	C1	FORM: COMPOUND ADJECTIVES Can use a wide range of compound adjectives	<input type="button" value="Example"/>	<input type="button" value="Details"/>

Grammatical development doesn't look like this ...



It looks more like this ...

grammatical
polysemy



pronoun + *will* + main verb

C2 DISAPPROVAL

*Indeed no one can imagine what children **will** do!*

C1 HABITUAL, TYPICAL

*... a dish that **will** usually contain some kind of sauce*

B1 PREDICTIONS

*... as soon as you finish your school, **it'll** be harder to meet your old friends.*

A1 FUTURE ARRANGEMENTS

***I'll** come to see you tomorrow morning.*

The meaning is in the phrase

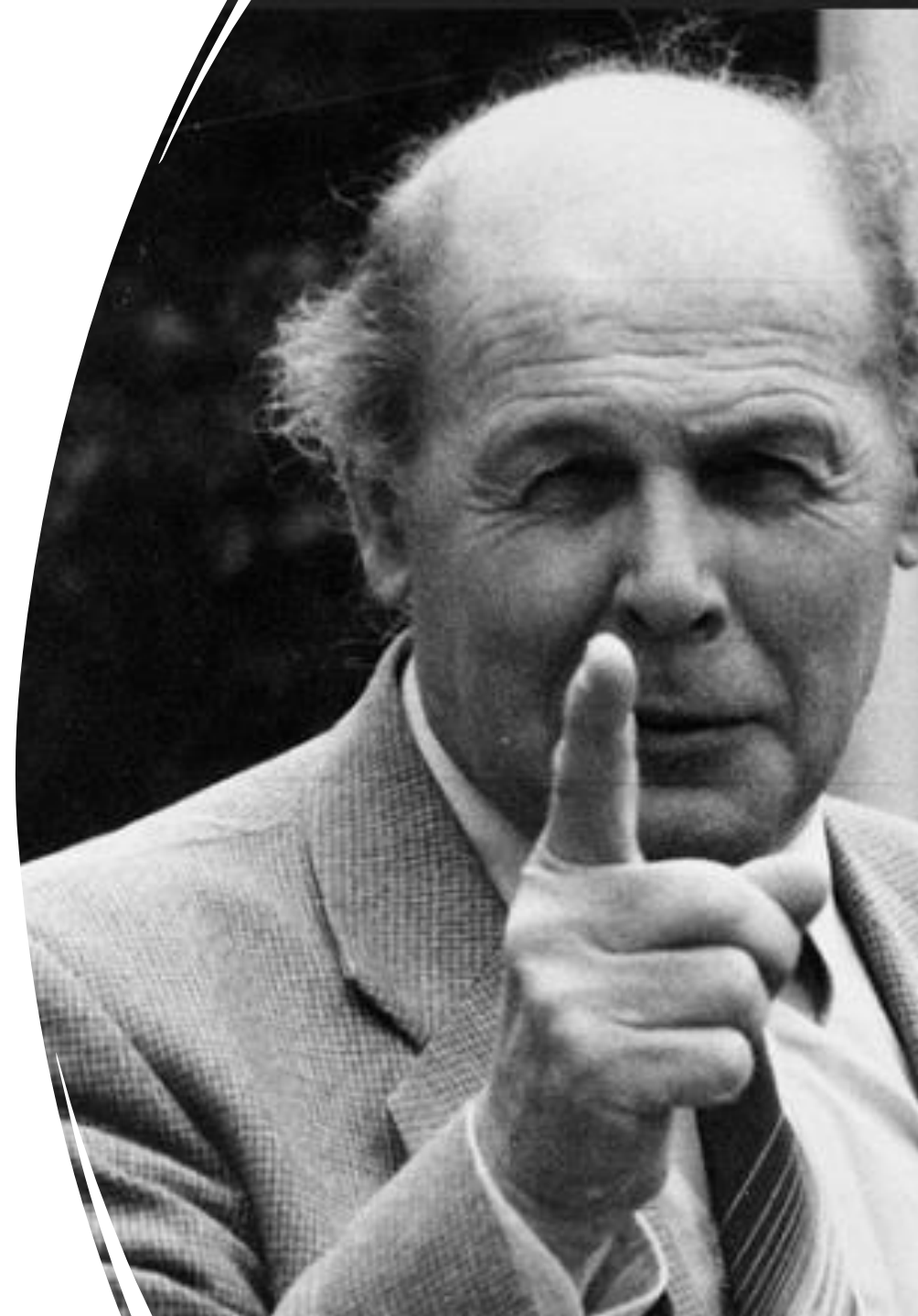
I'll see you tomorrow.

You will see me tomorrow.

pronoun + modal + main verb

*I'm having a party. **You must bring** crisps. (A1)*

***I must admit that** I agree with Chris (C2)*



Other ways in

Top-down

Bottom-up

Can we learn

about process?



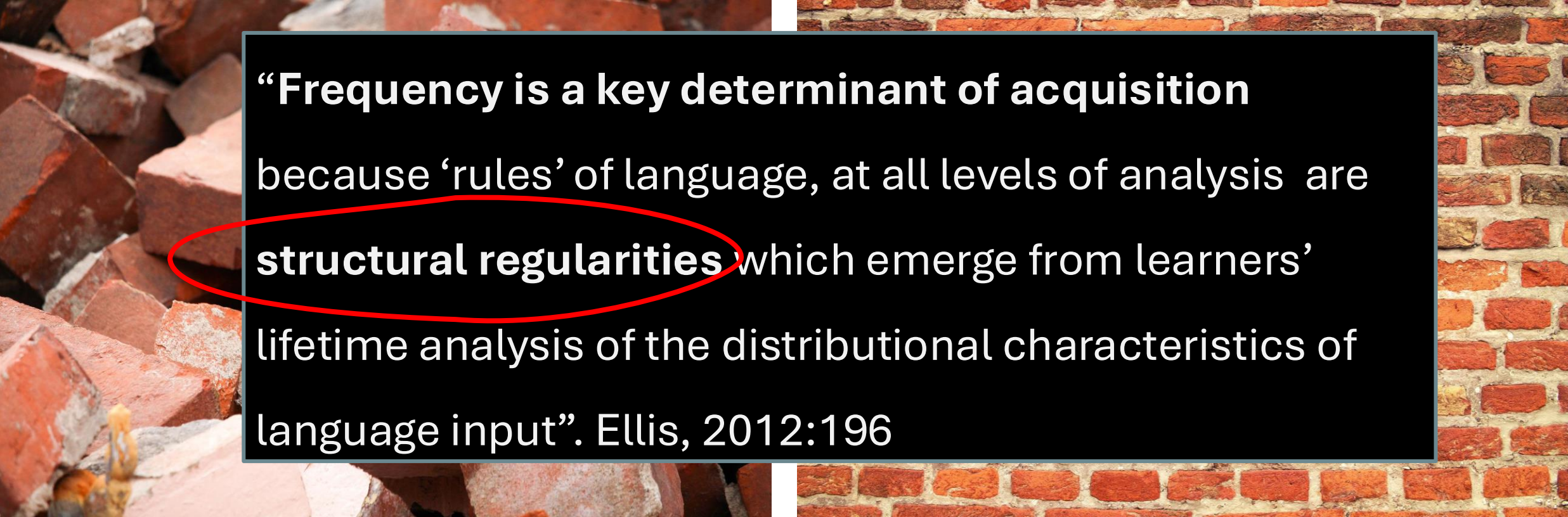


Development in L2 – usage-based

- **A theory of language acquisition** from first language acquisition studies
- Language comes from **experience**
- Our brains are sensitive to the **frequency of forms and meanings**.
- There is a **pattern of language development** seen in L1 development.
formula → limited slot and frame pattern → full productive system

Investigating whether/how this occurs and develops in learner language.

Putting together the building blocks



“Frequency is a key determinant of acquisition because ‘rules’ of language, at all levels of analysis are **structural regularities** which emerge from learners’ lifetime analysis of the distributional characteristics of language input”. Ellis, 2012:196

Putting together the building blocks



Building blocks of a language that derive from form-meaning pairings that become cognitively **entrenched**

‘a huge warehouse of constructions that vary in their degree of complexity and abstraction’

Wulf & Ellis, 2018: 39

Language experience + world experience

Mammy's gone.

Mammy's gone in the car.

All gone.

Where's daddy gone?

It's gone!



The car's gone,

Where's the car gone?

The juice is gone,

Where's the Lego gone?

Formula to slot and frame to formulaic

VVD IN DT NN A2

past simple + preposition + determiner + noun

went **into** **the** ~~shop~~ ~~light~~
looked in the shop

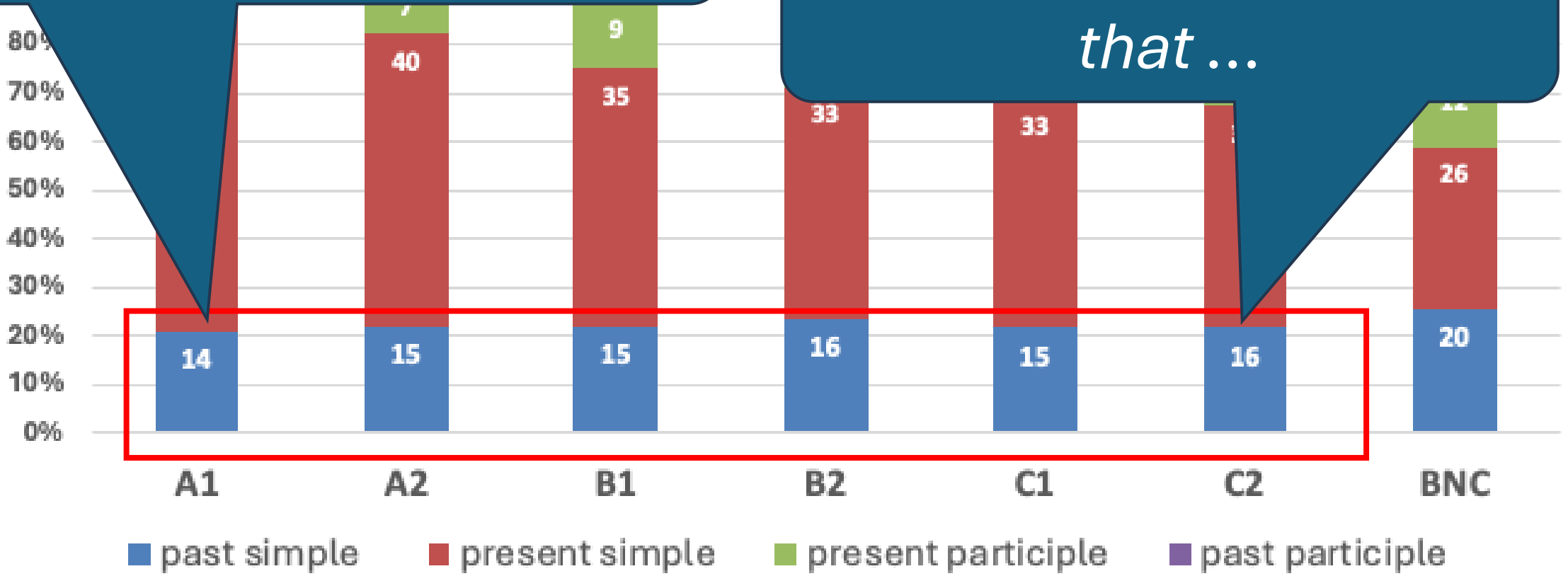
A2	B2	C2	BNC
went to the cinema	turned on the television	did in the past	came to an end
looked in the shop	played for an hour	came to the conclusion	came to a head
went to the shopping	walked into the house	went to the kitchen	said that the government
went to a shop	went to the theatre	went to the hospital	came to the conclusion
went to the shop	went to the beach	died at the age	drew to a close
went to the theatre	went to a shop	went for a walk	came to the rescue
went to the mall	went to the festival	happened in the past	said in a statement
went to the house	went to the kitchen	died in a car	said at the time
went to a restaurant	went to the cinema	came as a surprise	died at the age
went to a pub	included in the offer	included in the price	came in the form
went to the police	went for a walk	came as no surprise	came in the wake
went to the city	went to the restaurant	came as a shock	came to the fore
went to the disco	went to the hospital	arrived at the museum	came as no surprise
went to the beach	arrived at the airport	arrived at the airport	said that the company



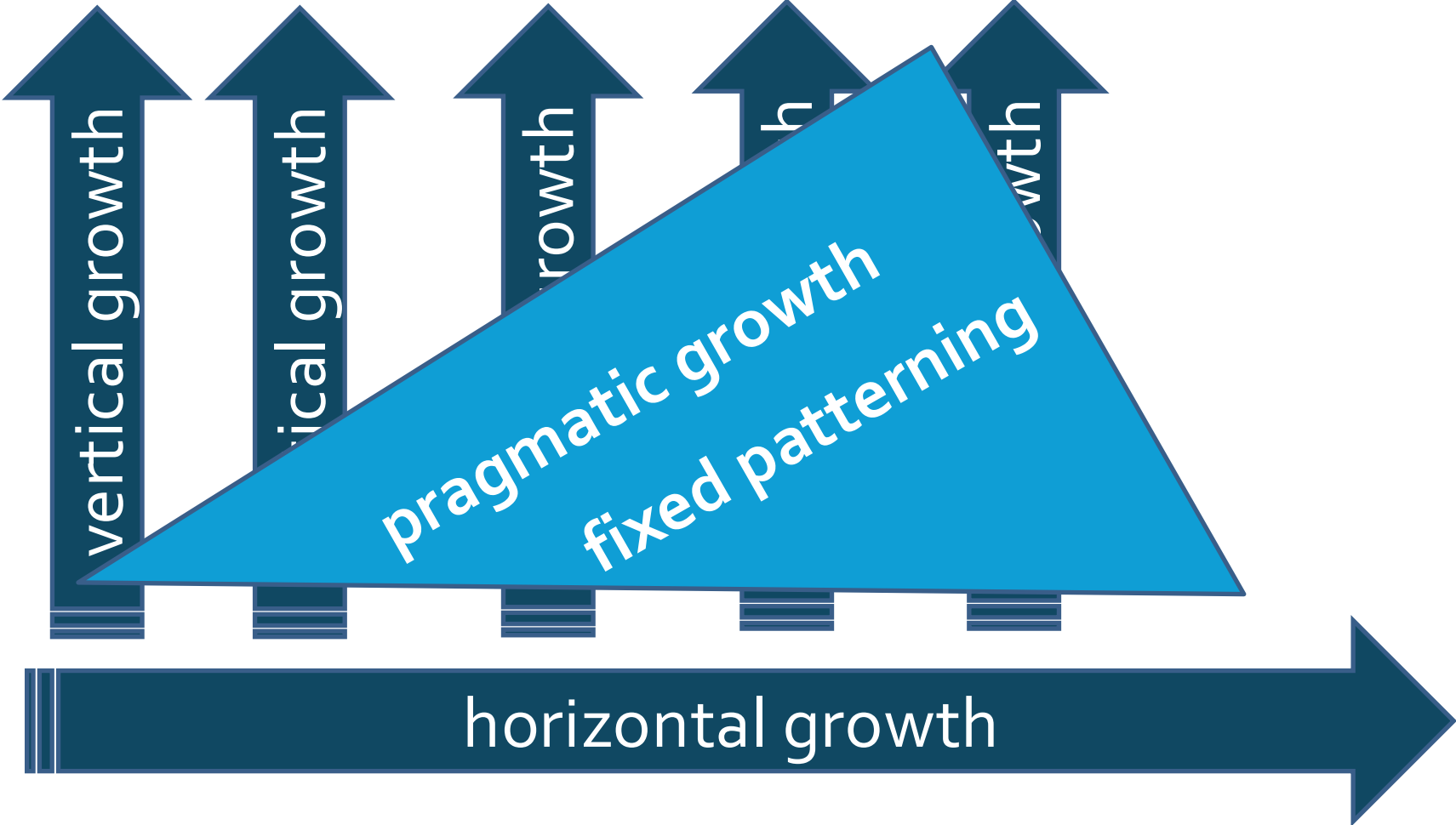
I went to the cinema / park / town centre

m distribution

I came to the conclusion that ...



Beyond slots and frames



Sequences of words

word + word + word

how are you?

would you like to

I would like to

in the centre of

see you soon

I think you should

Sequences of parts of speech

tag + tag + tag + tag

verb + preposition + determiner + noun

noun + preposition + determiner + noun

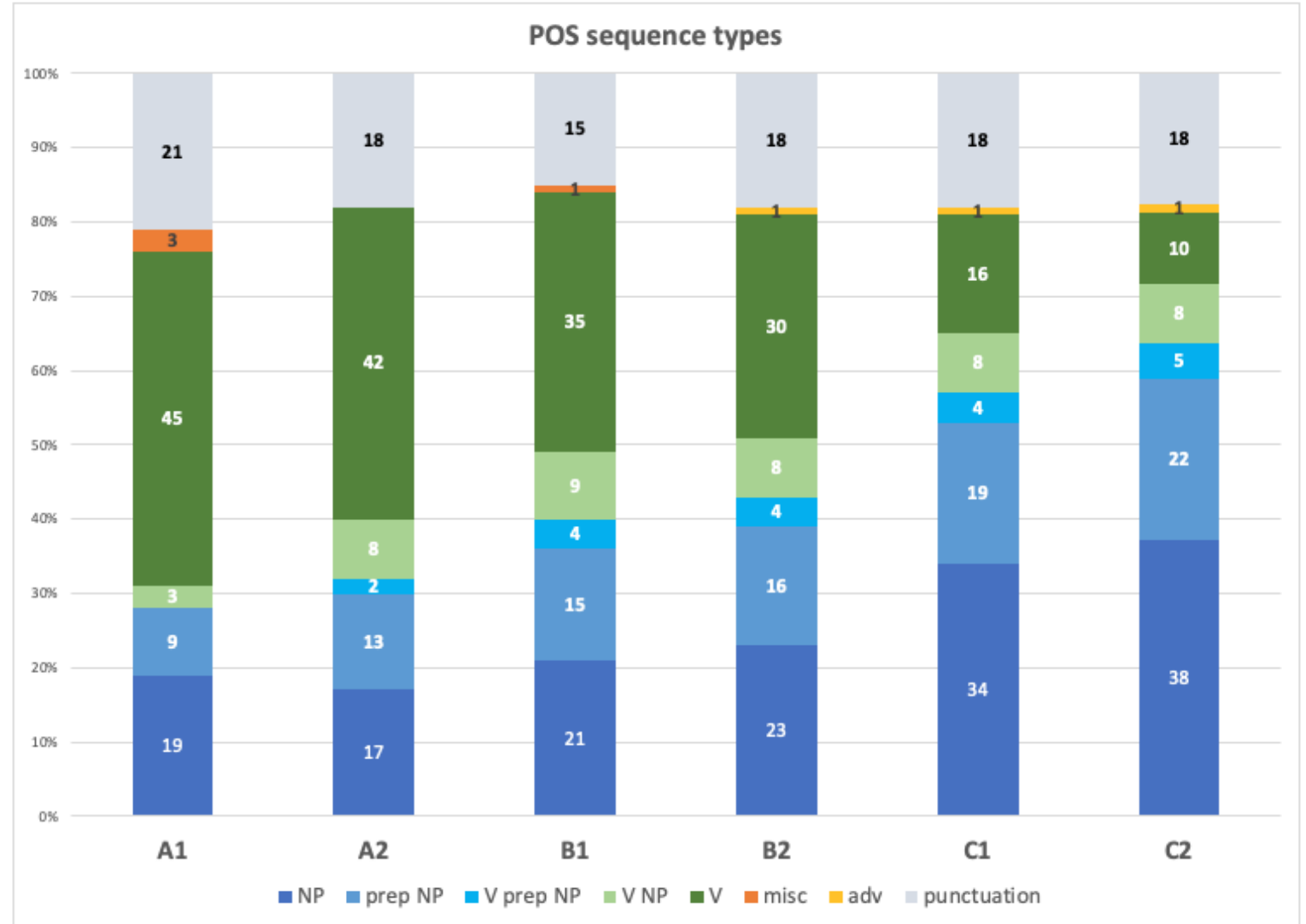
adjective + noun + preposition + determiner

determiner + adjective + noun + preposition

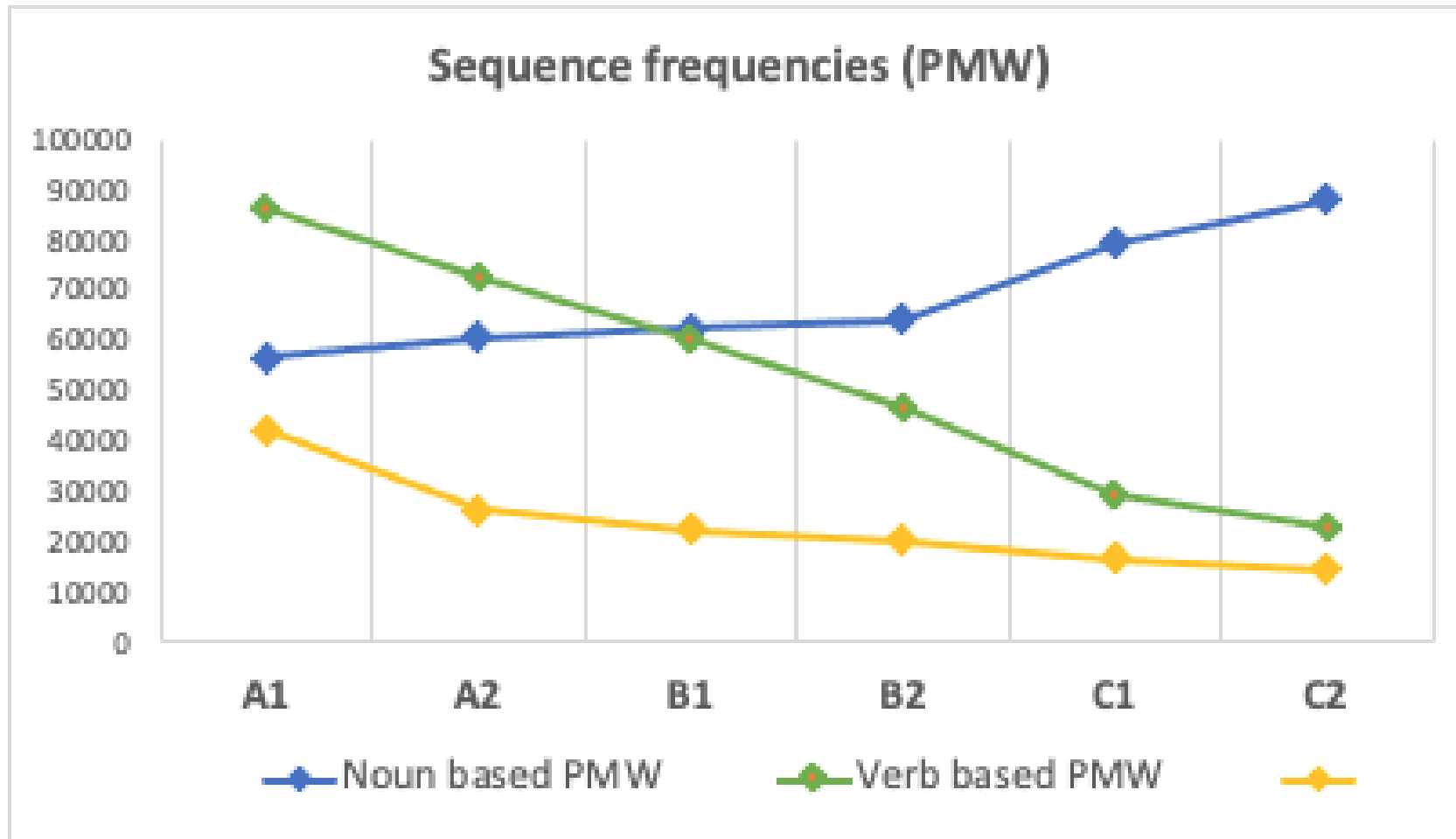
Noun sequences increase as proficiency increases

Top 100 sequences

Categorised based on Gray & Biber (2013)



B1 level is a pivotal point in sequence usage



Top sequences of parts of speech

noun + preposition + determiner + noun

centre of the city. (A2)

gap in the market (C1/C2)

determiner + adjective + noun + preposition

the yellow house with (A2)

a wide range of (C1/C2)

Lexical and functional usage changes as proficiency increases

DT JJ NN IN

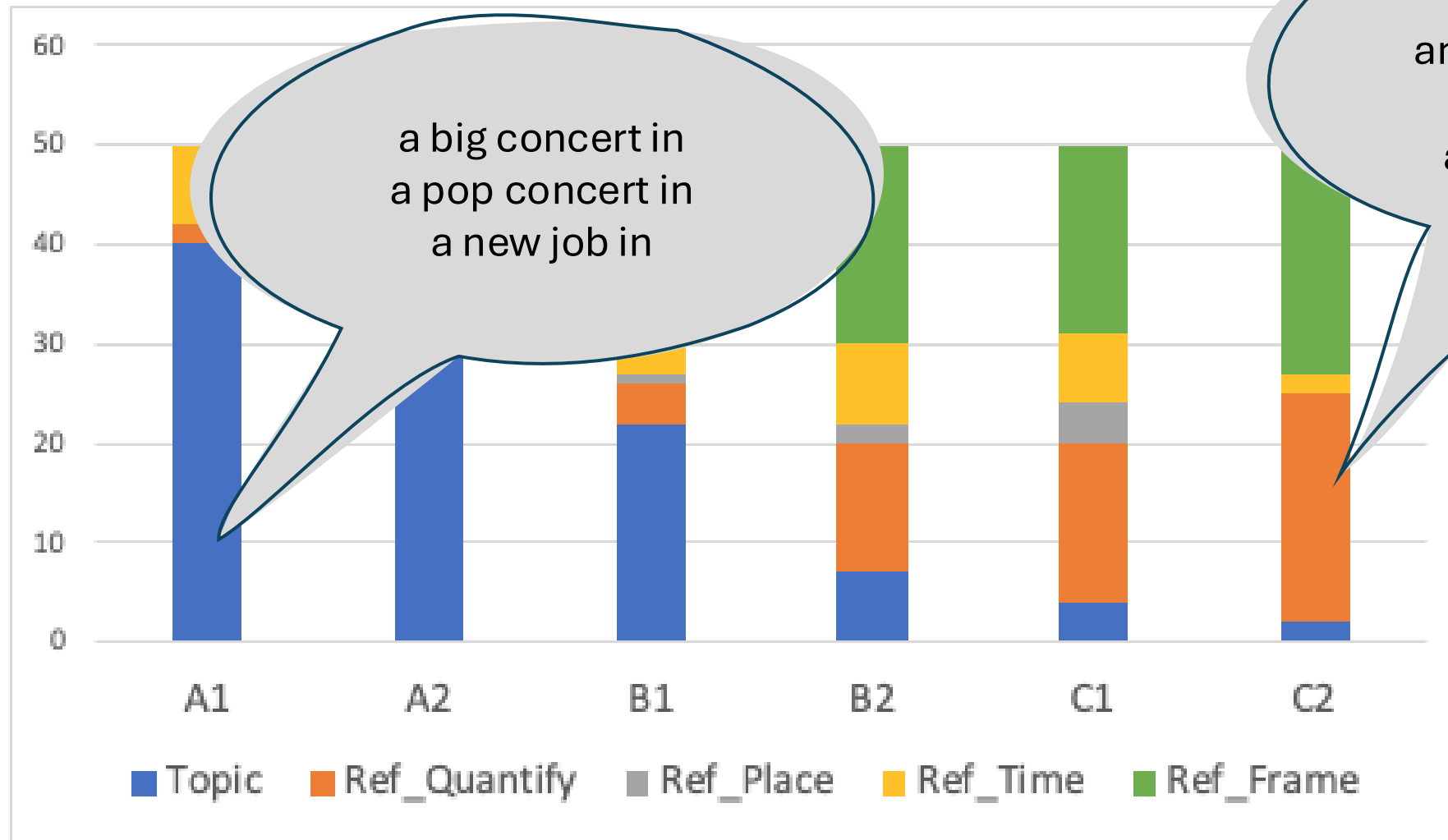
determiner + adjective + noun +
preposition

a new pair of, a new job in
a wide range of, a great deal of

- Referential: quantity, framing, place, time
- Stance
- Discourse
- Fixed

Biber et al. 2014

From Topics to References & Frames



a big concert in
a pop concert in
a new job in

a great deal of
an essential part of
a wide range of
a wide variety of

What can learner corpora tell us about language learning?

Learners are sensitive to statistical frequencies in language usage.

Evidence of process from formula to slot and frame to formulaic, aligning with UB theory.

Lexical and functional usage changes as proficiency increases.

There is a fixedness of patterning as proficiency increases.

Learners demonstrate growing pragmatic awareness.

Learners demonstrate growing register awareness.

Why use learner corpora?

To look at the landscape

To look at the detail

To find unsuspected patterns

The difference between what we think
and what we know using evidence





**KEEL(EÕPE) MUUTUVAS MAAILMAS /
LANGUAGE (TEACHING & LEARNING) IN A CHANGING WORLD**

Täna teid!

Any questions?

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<https://www.youtube.com/watch?v=fCn8zsg12OE>



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