Reflecting on the role of iteration in analysing learner grammar competence

Anne O’Keeffe & Geraldine Mark

CLS 15
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The background

Describing learner language at CEFR levels.
The background: 6 CEFR levels

Common European Framework of Reference

- Proficient user: C2
- Independent user: C1
- Basic user: B2
- B1
- A2
- A1
The background: our task

• To empirically describe what learners can do with grammar across the CEFR proficiency levels.

• To create a resource for English language teaching.

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

- (CPE) PROFICIENCY
- (CAE) ADVANCED
- (FCE) FIRST
- (PET) PRELIMINARY
- (KET) KEY
- SfLE1

Levels:
- C2
- C1
- B2
- B1
- A2
- A1
The methodology: starting points

- Pedagogical grammar books
- CEFR publications
- Exam syllabi
- Coursebooks

search list
The ELT ‘grammar canon’

- Adjectives
- Adverbs
- Clauses
- Conjunctions
- Determiners
- Discourse markers
- Future time
- Modality
- Negation
- Nouns
- Passives
- Past
- Prepositions
- Present
- Pronouns
- Punctuation
- Questions
- Reported speech
- Verbs
- Focus
A linear methodology

1. Identify the ELT grammar canon
2. Examine items across Cambridge Learner Corpus
   (pass only scripts from general exams)
3. Write a statement of competence for each item at each level
A linear methodology: the first fall

Establish the ELT grammar canon → Examine items → Write a statement of competence for each item at each level
PMW modal verb *would* across pass only data
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)
The ELT ‘grammar canon’

- adjectives
- adverbs
- clauses
- conjunctions
- determiners
- discourse markers
- future time
- modality
- negation
- nouns
- passives
- past
- prepositions
- present
- pronouns
- punctuation
- questions
- reported speech
- verbs
- focus
Waystage: CEFR

<table>
<thead>
<tr>
<th>A2</th>
<th>Pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>demonstrative (3.1.1, 4.8.1.1, 4.8.1.2)</td>
</tr>
<tr>
<td></td>
<td>this, that, these, those</td>
</tr>
<tr>
<td>2.2</td>
<td>personal (3.1.1, 4.8.1.1, 4.8.1.2)</td>
</tr>
<tr>
<td>2.2.1</td>
<td>subject forms</td>
</tr>
<tr>
<td></td>
<td>I, you, he, she, it, we, they</td>
</tr>
<tr>
<td>2.2.2</td>
<td>non-subject forms</td>
</tr>
<tr>
<td></td>
<td>me, you, him, her, it, us, them</td>
</tr>
<tr>
<td>2.3</td>
<td>possessive (4.7.5.1, 4.8.1.1, 4.8.1.2)</td>
</tr>
<tr>
<td></td>
<td>mine, yours, his, hers, ours, theirs</td>
</tr>
</tbody>
</table>

KET Handbook

<table>
<thead>
<tr>
<th>Pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal (subject, object, possessive)</td>
</tr>
<tr>
<td>Impersonal: it, there</td>
</tr>
<tr>
<td>Demonstrative: this, that, these, those</td>
</tr>
<tr>
<td>Quantitative: one, something, everybody, etc.</td>
</tr>
<tr>
<td>Indefinite: some, any, something, one, etc.</td>
</tr>
<tr>
<td>Relative: who, which, that</td>
</tr>
</tbody>
</table>

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


KET Handbook

Pronouns

Personal (subject, object, possessive)

Impersonal: it, there

Demonstrative: this, that, these, those

Quantitative: one, something, everybody, etc.

Indefinite: some, any, something, one, etc.

Relative: who, which, that
### Possessive pronouns

<table>
<thead>
<tr>
<th>Node form</th>
<th>raw freq</th>
</tr>
</thead>
<tbody>
<tr>
<td>his</td>
<td>20196</td>
</tr>
<tr>
<td>Yours</td>
<td>16700</td>
</tr>
<tr>
<td>yours</td>
<td>3248</td>
</tr>
<tr>
<td>mine</td>
<td>1859</td>
</tr>
<tr>
<td>His</td>
<td>1595</td>
</tr>
<tr>
<td>ours</td>
<td>519</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Node form</th>
<th>raw freq</th>
</tr>
</thead>
<tbody>
<tr>
<td>theirs</td>
<td>168</td>
</tr>
<tr>
<td>hers</td>
<td>152</td>
</tr>
<tr>
<td>Mine</td>
<td>45</td>
</tr>
<tr>
<td>Ours</td>
<td>15</td>
</tr>
<tr>
<td>Hers</td>
<td>3</td>
</tr>
<tr>
<td>Theirs</td>
<td>2</td>
</tr>
</tbody>
</table>
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)
their
Pat, too, is a friend of theirs. (B2, FCE, Japanese)
Pat, too, is a friend of theirs. (B2, FCE, Japanese)

Through pottery, they have also studied their relations with the first Spanish men in Argentina. (C1, CAE, Spanish - Latin American)
A linear methodology: back to the drawing board

1. Establish the ELT grammar canon
2. Examine items across Cambridge Learner Corpus
3. Pass on only scripts for general exams
4. Write a statement of competence for each item at each level
How did we really get there?

- Research question
- Data
- Initial results
- New questions raised
- New questions raised
- Data
- Refined results
The methodology

• Frequency
• Correct uses
• Distribution
• Spread of language families
• Spread of contexts of use
• Task effect

• Opportunity of use
Example: `[word="had|'d"][tag="RB"][0,2][tag="V.N"]`

<table>
<thead>
<tr>
<th>Level</th>
<th>Raw frequencies</th>
<th>PMW</th>
<th>Errors</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNC</td>
<td>117, 116</td>
<td>61.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>1</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>194</td>
<td>188</td>
<td>96</td>
<td>49.5</td>
</tr>
<tr>
<td>B1</td>
<td>2,730</td>
<td>712</td>
<td>532</td>
<td>19.5</td>
</tr>
<tr>
<td>B2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I `<#TV> had seen | saw </#TV> Akropolis yesterday.`

[A2, Dutch, 1999]
Example: `[word="hadl'd"]` `[tag="RB"]` `{0,2}` `[tag="V.N"]`

<table>
<thead>
<tr>
<th>Level</th>
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<th>Errors</th>
<th>%</th>
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<td>BNC</td>
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<td>49.5</td>
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<tr>
<td>B1</td>
<td>2,730</td>
<td>712</td>
<td>532</td>
<td>19.5</td>
</tr>
<tr>
<td>B2</td>
<td>8,093</td>
<td>1333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>2,756</td>
<td>460</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td>13,213</td>
<td>1999</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The methodology

• Frequency
• Correct uses
• Distribution
• Spread of language families
• Spread of contexts of use
• Task effect: (SkE text visualisation)

• Opportunity of use
FORM: Can use the affirmative form of the past perfect simple.

FORM: Can use the past perfect simple with a limited range of adverbs (including never, ever, just, always, already) in normal mid-position.

USE: Can use the past perfect simple to talk about a time before another time in the past.

Actually I’d arranged an appointment with my doctor before calling you. (Arabic – Meghreb, 2008)
The methodology

• Frequency
• Correct uses
• Distribution
• Spread of language families
• Spread of contexts of use
• Task effect

• Opportunity of use
<table>
<thead>
<tr>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FORM/USE:</strong> Can use the past perfect simple after <em>because</em> to give explanatory information.</td>
</tr>
<tr>
<td><strong>USE:</strong> Can use the past perfect simple in relative clauses to give background information.</td>
</tr>
<tr>
<td><strong>USE:</strong> Can use the past perfect simple to talk about situations which changed.</td>
</tr>
<tr>
<td><strong>USE:</strong> Can use the past perfect simple to report questions, where the main verb in the reporting clause is in the past simple.</td>
</tr>
<tr>
<td><strong>USE:</strong> Can use the past perfect simple to report statements, where the main verb in the reporting clause is in the past simple.</td>
</tr>
</tbody>
</table>

He went to the Hotel because he wanted to find out who was the person that had sent him a mysterious letter ...  
(Chinese, 1997)
The insights
### Lexico-grammatical development

#### Past simple: Student performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Raw frequency</th>
<th>PMW</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>63,508</td>
<td>27,151</td>
</tr>
<tr>
<td>A2</td>
<td>244,043</td>
<td>28,601</td>
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<tr>
<td>B1</td>
<td>209,997</td>
<td>24,391</td>
</tr>
<tr>
<td>B2</td>
<td>288,339</td>
<td>25,715</td>
</tr>
<tr>
<td>C1</td>
<td>235,808</td>
<td>25,760</td>
</tr>
<tr>
<td>C2</td>
<td>222,208</td>
<td>27,795</td>
</tr>
</tbody>
</table>
## Past simple [tag="V.D"] Top 10

<table>
<thead>
<tr>
<th>BNC</th>
<th>%</th>
<th>A1</th>
<th>A2</th>
<th>B1</th>
<th>B2</th>
<th>C1</th>
<th>C2</th>
</tr>
</thead>
<tbody>
<tr>
<td>was</td>
<td>20.2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>had</td>
<td>10.9</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>were</td>
<td>5.3</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>said</td>
<td>4.8</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>did</td>
<td>3.1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>came</td>
<td>1.3</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>went</td>
<td>1.2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>looked</td>
<td>1.1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>thought</td>
<td>1.1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>took</td>
<td>1.0</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Past simple: A1

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.
Past simple: B1

*He always seemed so confident to me!*

(Brazil; B1 THRESHOLD; 2002; Portuguese; Pass)

Can use the past simple to talk about habitual states or actions.
Past simple: B2

*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.
Past simple: B2

[letter of complaint]
It would be better if you provided a lunch of higher quality in future.  (C1, CAE, German)

Can use if + past simple as a politeness structure (especially in the context of letters)
Past simple: C1

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 refute inaccuracies.
Flat-lining?

Higher level learners appear to demonstrate less progress. They are taking more risks. They have more ‘error opportunity’.

Accuracy-complexity trade-off / B2-C2 stabilisation line (Thewissen 2013)
Beyond syntactic stabilisation

“developmental endpoint”
“should not … be interpreted as a sign of no learning” (Thewissen 2013)

A syntactic developmental endpoint.

not “linguistic rigor mortis”
(Larsen-Freeman 2006)
An iterative approach: past simple development

1. Increase in verb types
2. L1:L2 form distribution convergence the higher the levels
3. Growth of functions (including pragmatic)
4. Increase in errors at B1
The gestalt of syntactic stabilisation
Error pattern with *must* PMW
### Illustrating a developmental pathway: *must*

<table>
<thead>
<tr>
<th>Form: Can use affirmative and negative</th>
<th>A1</th>
<th>A2</th>
<th>B1</th>
<th>B2</th>
<th>C1</th>
<th>C2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function: Can use <em>must</em> to talk about obligation and necessity</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Form: Can use <em>must</em> with adverbs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Form: Can use ellipted forms of <em>must</em></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Function: Can use <em>must</em> to talk about deductions and conclusions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Function: Can use <em>must</em> to make invitations</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Function: Can use <em>must</em> for strong suggestions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Form: Can use <em>must</em> have + <em>ed</em></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Function: Can use <em>must</em> to express concession (<em>I must admit</em>)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Function: Can use <em>must</em> for emphasis</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Function: Can use <em>must</em> to express rules</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Form: Can use ellipted form <em>must</em> have + -<em>ed</em> (without subject)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Form: Can use inverted patterns of <em>must</em> after negatives for focus / emphasis</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Form: Can use past negative form</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
My home is very nice.
This is a very nice neighbourhood.

I’m really happy to see you.

It is really nice that you come to visit me.

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.
Perspectives on an iterative approach

A1 FUTURE ARRANGEMENTS
I’ll come to see you tomorrow morning.

B1 PREDICTIONS
… as soon as you finish your school, it'll be harder to meet your old friends.

C1 HABITUAL, TYPICAL
… a dish that will usually contain some kind of sauce made of hot pepper, tomatoes, garlic …

C2 DISAPPROVAL
Indeed no one can imagine what children will do!

pronoun + will + main verb
The key insights

• Lexico-grammatical development
• Competence emerges both syntactically and functionally
• Error and competence are not mutually exclusive
• Mismatch between ELT syllabi and competence
References

