A multimodal source to teach lecturing skills in English at university

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Introduction

Research on corpora for language teaching and learning (Boulton & Pérez-Paredes, 2014)
Multilayer annotation (Querol-Julián & Fortanet-Gómez, 2012)

Internationalization of Spanish universities
CLIL (Content and Language Integrated Learning)

Open courses

teach lecturing skills
interaction

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Aim

show CLIL teachers how interaction with students unfolds when lecturing in English
Methodology

- corpus compilation
- corpus annotation
- analysis
- pedagogical application

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Corpus

36 lectures from a course in Chemistry “Principles of Chemical Science”, from Massachusetts Institute of Technology (MIT)

Cummins, C. and S. Ceyer. 5.112 Principles of Chemical Science, Fall 2005. (MIT OpenCourseWare: Massachusetts Institute of Technology), http://ocw.mit.edu/courses/chemistry/5-112-principles-of-chemical-science-fall-2005 License: Creative Commons BY-NC-SA
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check comprehension and offer the audience the opportunity to enter into negotiation

**teacher’s type of questions***

- check (AO-chq)
- evoke audience response (AO-ear)
- correct feedback (AO-cf)
- invite to formulate a question (AO-ifq)
- invite to students’ intervention (AO-isi)
- seek clarification (AO-scl)
- seek repetition (AO-sr)
- seek confirmation (AO-sc)
- seek agreement (AO-sa)

**content oriented**

- introduce information (CO-ii)
- rhetorical questions (CO-rq)
- Exemplify (CO-e)
- raise issues (CO-ri)

**audience oriented**

- call for an answer

* see the tags use in the annotation in brackets
Example of one lecture

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# Results

<table>
<thead>
<tr>
<th>Questions and responses</th>
<th>Occur. (#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher’s questions</td>
<td>73</td>
</tr>
<tr>
<td>Student’s questions</td>
<td>12</td>
</tr>
<tr>
<td>Teacher’s response</td>
<td>16</td>
</tr>
<tr>
<td>Student/s’ response</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of teacher’s questions</th>
<th>Tokens (#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audience oriented</td>
<td>57</td>
</tr>
<tr>
<td>check</td>
<td>33</td>
</tr>
<tr>
<td>evoke audience response</td>
<td>13</td>
</tr>
<tr>
<td>invite to students’ intervention</td>
<td>7</td>
</tr>
<tr>
<td>seek confirmation</td>
<td>2</td>
</tr>
<tr>
<td>invite to formulate a question</td>
<td>1</td>
</tr>
<tr>
<td>seek repetition</td>
<td>1</td>
</tr>
<tr>
<td>Content oriented</td>
<td>16</td>
</tr>
<tr>
<td>introduce information</td>
<td>10</td>
</tr>
<tr>
<td>raise issues</td>
<td>6</td>
</tr>
</tbody>
</table>

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6th International Conference on Education and New Learning Technologies
Barcelona - 7th - 9th of July 2014
Content oriented

<table>
<thead>
<tr>
<th>Nr</th>
<th>Annotation</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CO-ii</td>
<td>And what is coming off?</td>
</tr>
<tr>
<td>2</td>
<td>CO-ii</td>
<td>ok so What was the interpretation?</td>
</tr>
<tr>
<td>3</td>
<td>CO-ii</td>
<td>And so what are we going to do?</td>
</tr>
<tr>
<td>4</td>
<td>CO-ii</td>
<td>What are we going to use for an alpha particle?</td>
</tr>
<tr>
<td>5</td>
<td>CO-ii</td>
<td>so How am I going to do that?</td>
</tr>
<tr>
<td>6</td>
<td>CO-ii</td>
<td>What does this say?</td>
</tr>
<tr>
<td>7</td>
<td>CO-ii</td>
<td>what is the force?</td>
</tr>
<tr>
<td>8</td>
<td>CO-ii</td>
<td>When R is equal to zero, what is the force?</td>
</tr>
<tr>
<td>9</td>
<td>CO-ii</td>
<td>And anywhere in between?</td>
</tr>
<tr>
<td>10</td>
<td>CO-ii</td>
<td>And what is not in this expression?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nr</th>
<th>Annotation</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CO-ri</td>
<td>so what am I going to do with this kid?</td>
</tr>
<tr>
<td>2</td>
<td>CO-ri</td>
<td>What should I have him do?</td>
</tr>
<tr>
<td>3</td>
<td>CO-ri</td>
<td>what is the structure of the atom?</td>
</tr>
<tr>
<td>4</td>
<td>CO-ri</td>
<td>How do they hang together?</td>
</tr>
<tr>
<td>5</td>
<td>CO-ri</td>
<td>Where are they in the atom?</td>
</tr>
<tr>
<td>6</td>
<td>CO-ri</td>
<td>And the first question that we have to ask is, what is the force that keeps the electron and the nucleus together?</td>
</tr>
</tbody>
</table>
Pedagogical applications

use ELAN file to show examples in class of how the teacher interacts with students and how she responds to the students’ questions

1. annotate
2. search results
3. jump from the search results to annotations
Teacher’s questions
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Teacher’s response

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Conclusions

ELAN multilayer annotation tool has been proposed to provide the CLIL class with complete real English examples of how teachers’ discourse unfolds to interact with students.

These examples go beyond the verbal utterances that can be commonly found in the manuals, to show, among others, the use of the interactive strategy “questions” in context. Moreover, novice CLIL teachers will benefit from being able to listen to and watch the performance of native speakers of English who are content teachers of their very same field of knowledge.

This approach could be considered in the design of in-service and pre-service training CLIL courses, to contribute to the development of English lecturing strategies from a global and more meaningful perspective.
References


Acknowledgments

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