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Corpus-Assisted Editing for Doctoral Students: Do-It-Yourself Corpora & Tools for Improving Writing

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# Editing your Thesis with Corpora: Course Details

Aim:	enhance graduates' editing skills prior to thesis submission					
Frequency:	2-3 times per year (10 in total)					
Timing:	1 2-hour session/week for 6 weeks					
Venue:	computer laboratory					
Class size:	7 – 12 (maximum 12)					
<b>Composition:</b>	multi-disciplinary					
Software:	AntConc (Anthony 2014) AntFileConverter (Anthony 2015)					

### AntConc Tools

Concordance: usage of search term; frequency, context Clusters: groups of words which include the search term Collocates: a list of words that co-occur with the search term

**Keyword List:** words which are unusually frequent or infrequent in one corpus when compared to a reference corpus

**N-grams:** all groups of words of size *n* in the corpus

**Concordance Plot:** a graphic display of the search term distribution

Word List: a list of all words in the corpus with frequencies

### **Research Questions**

- How useful are the individual corpus tools for editing purposes?
- What are the affordances of each tool that make it useful for editing purposes?

# Two Corpus Types

- 1. Do-It-yourself Corpus of Research Articles in student's own field/topic area
  - \* based on downloaded files in own bibliography;
  - \* may include subcorpora of different topics/genres

#### 2. Do-It-Yourself Corpus of Student's Own Writing

- \* chapters of thesis as individual files;
- \* may include subcorpora of other writing (e.g. proposals, Master's dissertation)

### Participants

Doctoral students who have completed at least 1 substantial chapter of their thesis

**66 students** (2012 – 2015)

Fields Natural Science 41% Social Science 30% Humanities 29%

# Course Programme

Торіс	ΤοοΙ
1. Using concordances to answer grammar, vocabulary and usage queries	AntConc Concordance
2. Building your corpus of research articles; answering your own editing queries	AntFileConverter
3. Finding collocations and semi-fixed phrases; building a corpus of your own writing	Clusters Collocates
<ol> <li>Examining the words you use; checking for consistency; comparing your own writing with expert texts</li> </ol>	Word List N-Grams
5. Tracing content, themes, terminology, citation throughout your own writing	Concordance Plot
6. Comparing individual chapters to the whole text; comparing your own writing with expert texts	Keyword List

### Student Evaluation of Tools (n = 66)



# **Editing Issues and Search Types**

### **Editing issues**

- Focus on lexicogrammar, content, organisation
- Aim for accuracy and consistency

#### Search types 1. Checking known issues

e.g. Is '*capable to do*...' correct? Do I use terminology consistently?

#### 2. Identifying unknown issues

e.g. What does a comparison of my text with expert texts show?

cf. 'pattern-defining' and 'pattern-hunting' (Kennedy & Miceli: 2010: 31)

# Tools, Editing Issues, Search Types

	Lexicogrammar	Content	Organisation
Checking known issue	Concordance Clusters Collocates	Plot	Plot
Identifying unknown issue	N-grams Wordlist	N-grams Keywords	N-grams Keywords

- Tools with high user input for checking issues
- Tools with low user input for *identifying issues*

# Example 1: Concordance Plot

- Andrea: Dominican doctoral student in Modern Languages
- **Corpus**: 4 thesis chapters; 64,000 words
- **Thesis title**: Poetics of the urban, poetics of the self: Transience, imminence and the everyday in selected works by Jorge Luis Borges and Jacques Réda.
- **Issue:** Balance of themes (checking)
- **Procedure:** Retrieve plots using content topics as search terms; compare distribution of topics in chapters
- Andrea's Question:
- 'Buenos Aires and Paris: Are they balanced throughout?'

# Comparison: Buenos Aires, Paris



HIT FILE: 1 FILE: Chapter1.3.txt
HIT FILE: 2 FILE: Chapter2.2.txt
HIT FILE: 3 FILE: Chapter3.1.txt
HIT FILE: 4 FILE: Chapter4.2.txt

Buenos Aires Chapter 1: 84 hits Chapter 2: 133 hits Chapter 3: 55 hits Chapter 4: 18 hits

### Paris Chapter 1: 102 hits Chapter 2: 65 hits Chapter 3: 27 hits Chapter 4: 5 hits

# **Outcomes: Andrea's Investigation**

**'Chapter 2:** Balance the Buenos Aires and Paris sections.

Chapter 3: Investigate the structure of the chapter.

**Chapter 4:** Very few hits for both cities. Is another theme emerging that needs to appear throughout the thesis (i.e. imminence)?'

### Why use Concordance Plot?

- to track content, ideas, terminology, citations etc.
   within a single chapter
- to compare usage across chapters of a thesis
- to check content issues that the student is already aware of

### Example 2: Keyword List

- Keiko: Japanese doctoral student in archaeological science
- **Corpus**: 7 thesis chapters; 57,492 words
- **Thesis title**: Transition from the Roman period to the Anglo-Saxon period in the Upper Thames Valley: Analysis using stable isotope data
- **Issue:** content of individual chapters (identifying)
- **Procedure:** Make keyword lists of individual chapters, using the whole thesis as reference corpus; examine keywords and negative keywords

### Keiko's Keywords

#### Literature Review

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#### Discussion

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# Outcomes: Keiko's Investigation

#### **Chapter 2 Literature Review**

*iron:* positive keyword; *roman:* negative keyword **Chapter 6 Discussion** 

neolithic positive keyword; roman negative keyword

*'I talk about Iron Age more in Chapter 2 (Literature Review) and Neolithic period more in Chapter 6 (Discussion), but my main focus is in the Roman and Anglo Saxon period. References to Iron Age and Neolithic should be reduced'.* 

#### Why use Keyword List?

- to allow aspects of content to emerge
- to identify content issues the student is not aware of

## Example 3: N-Grams

**Hiromi:** Japanese doctoral student in sociology **Thesis topic:** Integration and separation of immigrants in Japan

Corpora:52 research articles; 523,427 words4 thesis chapters; 18,945 words

**Issue:** differences between expert and student's writing (identifying)

**Procedure:** Make 3-gram lists of research article corpus and student's thesis corpus; compare most frequent 3-grams

# Hiromi's Top Five 3-grams

#### **Research Article Corpus**

- 1. of national identity (192)
- 2. as well as (150)
- 3. of the nation (135)
- 4. in terms of (119)
- 5. there is a (90)

### **Thesis Corpus**

- 1. of national identity (55)
- 2. national identity and (46)
- 3. civic national identity (34)
- 4. ethnic national identity (31)
- 5. and attitude toward (27)

Hiromi's research article corpus contains 2 referential expressions and 1 discourse organizer (Simpson-Vlach & Ellis (2010) Her own writing contains only content-related 3-grams

# **Outcomes: Hiromi's Investigation**

- 'I should check if I can write more sentences using the general expressions.
- It may be that I need more interpretations of the results.
- How is 'there is a' used in my research article corpus?
- It is used to reference the previous research and to explain the gap in the field of study, as well as to explain the results of the statistical analysis.'

### Why use the N-grams Tool?

- to identify frequent expressions
- to explore the difference between student's writing and expert text

# Affordances of Corpus Tools for Editing

- enable comparisons of student writing e.g. with expert texts or between chapters
- facilitate a focus on language, content and organisation separately
- show issues in language, content and organisation that are not evident when reading linearly
- allow both a *bird's eye view* from above and *a bug's eye view* from below
- de-familiarise an over-familiar text

### References

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