PhD Dissertation Writing: A Case of Hedges in Academic Writing by Polish, German and English PhD Candidates.

Magdalena Williams, FHEA

Chemnitz University of Technology
Nottingham Trent University

Thesis rationale

- Limited Research on dissertation writing

- Limited data how hedges are used by experienced writers

- Need for more research informed EAP teaching and training

- Developing teaching strategies and learning materials

- Critical evaluation of the published resources

"A **hedge** is any linguistic means used to indicate either a lack of complete commitment to the trust of a given proposition or a desire not to express that commitment categorically.

Hedges are therefore the means by which a writer can present a proposition as an opinion rather than a fact" (Hyland 2006: 1).

Corpus data

PhD Corpus	No of PhD Theses	No of words per PhD thesis	Average number of words per PhD thesis
Polish PhD Corpus	8	456.945	57.118
German PhD Corpus	11	1.277.865	116.169
English PhD Corpus	8	560.646	70.080

Table 1: The number of PhD theses in the Polish, German and English PhD Corpora with the number of words per PhD thesis, average number of words per PhD thesis

No.	Category	Lexical items
1	Sensory Verbs	*appear, seem*
2	Verbs of Perception	*assume, believe, doubt, feel, perceive, regard, think*
3	Performative Verbs	*agree, propose, suggest*
4	Lexical Verbs	*calculate, estimate, imply, indicate, predict, speculate, suspect*
5	Adjectives	*certain, consistent with, doubtful, inclined to, liable, likely, possible, probable, significant, similar, suggestive, unlikely*
6	Modal Nouns	*argument, assumption, chance, doubt, estimate, likelihood, necessity, opportunity, possibility, tendency*
7	Modal Auxiliaries	*can, could, may, might, must, ought to, shall, should, will, would*
8	Epistemic Adverbs-Adjuncts (Downtoners) Compromisers	*(a) kind of, comparatively, enough, more or less, quite, rarely, rather, relatively, sort of, virtually*
9	Epistemic Adverbs-Adjuncts (Downtoners), Diminishers	*(a) little, in many/some/this respect, in part, mildly, moderately, partially, partly, pretty, slightly, somewhat*
10	Epistemic Adverbs Minimisers	*(a) bit, barely, hardly, scarcely*
11	Approximators	*almost, approximately, consistently, generally, majority, most, nearly, necessarily, possibly, practically, probably, technically*
12	Epistemic Adverbs Disjuncts – Style Disjuncts	*frankly, personally, strictly*
13	Epistemic Adverbs Disjuncts – Content disjuncts	*actually, allegedly, apparently, essentially, normally, perhaps, potentially, presumably, reportedly, reputedly, seemingly, supposedly, theoretically*

Table 2: Selected grammatical classes of hedges analysed in this PhD research study

4

PhD research questions, hypotheses and methods

1. **Which hedges** are used in dissertations written in English by Polish, German and English PhD candidates?

2. Do the **non-native** PhD candidates apply hedges in their PhD dissertations written in the English language **more or less frequently** in comparison to their native counterparts?

3. **How tentative** are the Polish, German and English PhD candidates when it comes to presenting their ideas and findings, based on the **epistemic modality** used in their PhD dissertations?

Hypotheses

- (H1) The non-native writers use hedges **more frequently**.
- (H2) The non-native writers will display a **more limited variety** of hedges in their writing, adhering **mainly to modal auxiliaries.**
- (H3) The native-English writers will apply a **wider selection of hedges** in their academic writing than their non-native counterparts.
- (H4) The non-native PhD candidates will be **less tentative** in their writing by using "stronger" auxiliary verbs such as *must*, *can* and *will*.
- (H5) The native speakers of English will display more **tentative language** by using "weaker" auxiliary verbs such as *may*, *might*, *would*.

Methodology: Quantitative and Qualitative Analysis
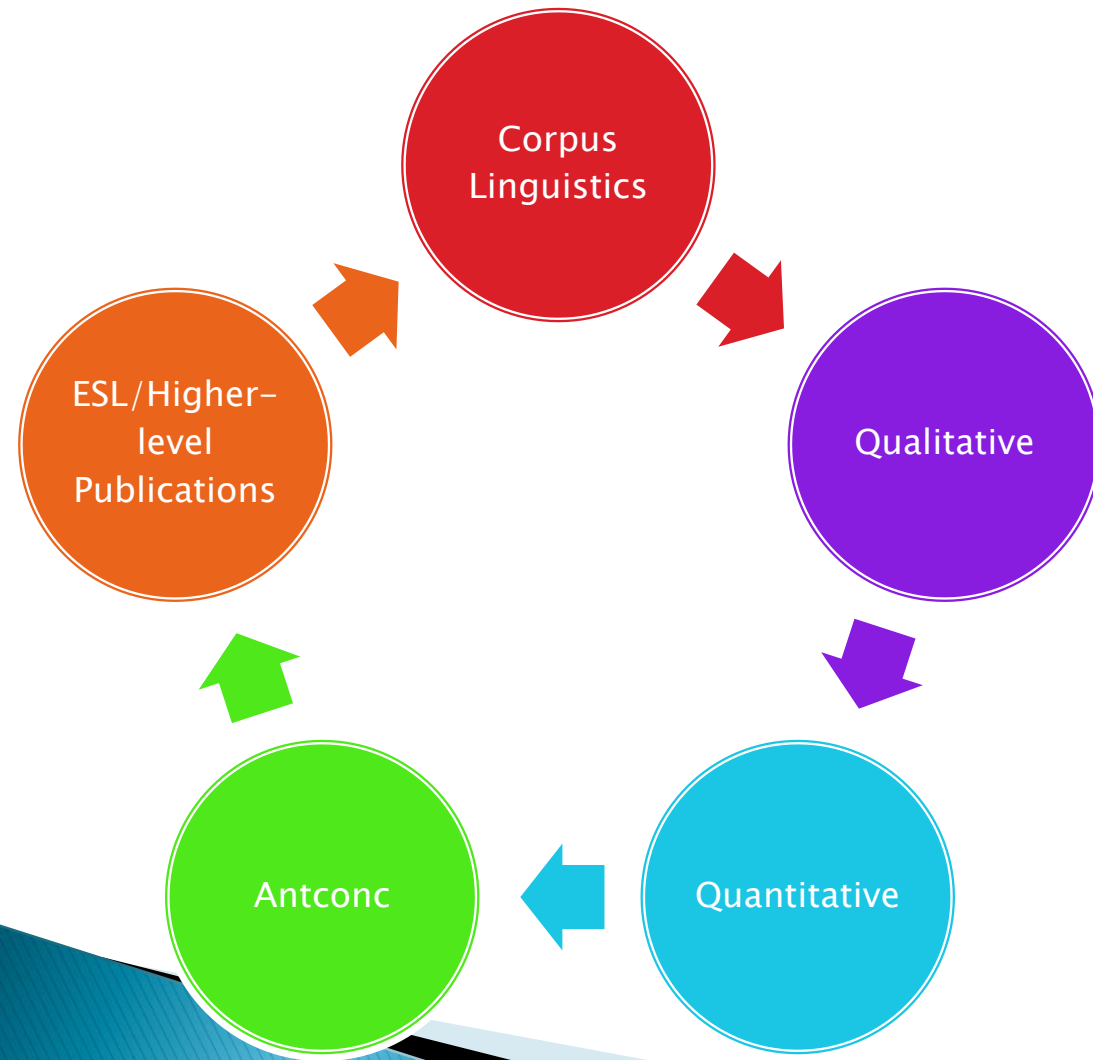
Quantitative analysis:

Normalisation
Statistical significance
Fisher's exact test
Percentage of hedged propositions

Qualitative analysis:

Concordance analysis
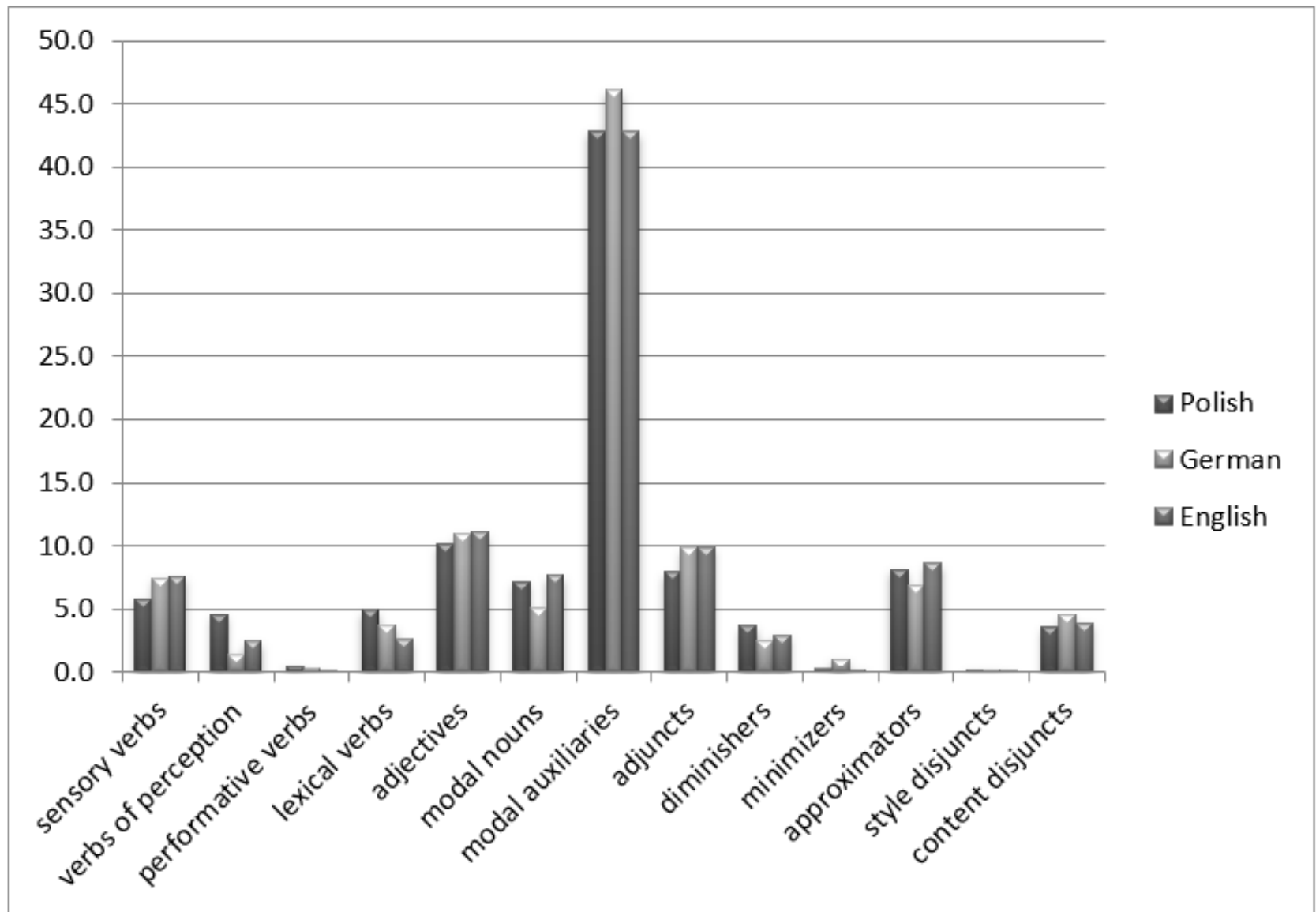Book analysis

Research Findings

Figure 1: The percentage of hedged propositions in the Polish, German and English PhD Corpora

PhD findings

1. Non-native writers will use hedges **more often** because hedges for them are teaching-induced ✓

2. Non-native writers will display a **more limited variety** of hedged strategies in their writing, adhering mainly to **modal verbs** and **modal adverbs** X

Freq. Rank	Pol_PhD Corpus	Polish %	Germ_PhD_Corpus	German %	Eng_PhD_Corpus	English %
	SUM hedged propositions	9685	SUM hedged propositions	18876	SUM hedged propositions	9884
1	Modal auxiliary	42.9	Modal auxiliary	46.0	Modal auxiliary	42.8
2	Adjectives	10.2	Adjectives	11.0	Adjectives	11.1
3	Approximat	8.1	Adjuncts	9.9	Adjuncts	9.9
4	Adjuncts	8.0	Sensory verbs	7.5	Approximat	8.6
5	Modal nouns	7.2	Approximat	6.9	Modal nouns	7.7
6	Sensory verbs	5.8	Modal nouns	5.1	Sensory verbs	7.6
7	Lexical verbs	4.9	Attit_disjun	4.5	Attit_disjun	3.9
8	Verbs of percept	4.6	Lexical verbs	3.7	Diminishers	2.9
9	Diminishers	3.7	Diminishers	2.5	Lexical verbs	2.6
10	Attit_disjun	3.7	Verbs of percept	1.4	Verbs of percept	2.5
11	Perform_verbs	0.5	Minimizers	1.0	Minimizers	0.2
12	Minimizers	0.2	Perform_verbs	0.2	Perform_verbs	0.1
13	Style_disjun	0.2	Style_disjun	0.2	Style_disjun	0.1

Table 3: Frequency rank of hedged propositions in the Polish, German and English PhD Corpora (in percentage).
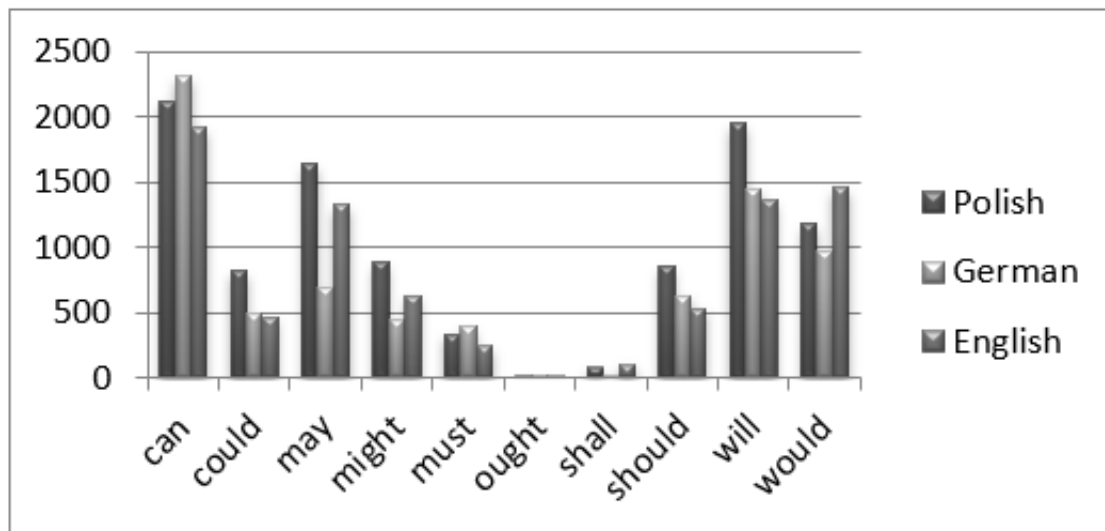
Modal auxiliaries

Figure 2: The frequency of epistemic *modal auxiliaries* in the Polish, German and English PhD Corpora per 1 million words

Freq. Rank	Polish PhD Corpus	Per 1 million words	German PhD Corpus	Per 1 million words	English PhD Corpus	Per 1 million words
1	*can*	2122.7	*can*	2309.3	*can*	1913.8
2	*will*	1947.7	*will*	1453.9	*would*	1457.2
3	*may*	1639.1	*would*	968.8	*will*	1360.9
4	*would*	1177.3	*may*	692.5	*may*	1325.2
5	*might*	881.9	*should*	633.0	*might*	634.9
6	*should*	851.3	*could*	490.6	*should*	536.8
7	*could*	818.4	*might*	446.0	*could*	469.1
8	*must*	339.2	*must*	398.3	*must*	251.4
9	*shall*	80.9	*ought*	19.5	*shall*	107.0
10	*ought*	2.1	*shall*	13.3	*ought*	1.7

Table 4: Frequency rank of epistemic *modal auxiliaries* per 1 million words in the Polish, German and English PhD Corpora

- (RQ4) **Do** contemporary ESL publications **convey** instruction in the field of hedges/hedging?

- (H6) Contemporary ESL publications **provide basic instruction** in the field of hedges/hedging. √

ESL Coursebook	Modal auxiliaries	Lexical verbs	Modal adverbs	Modal adjectives	Other
New English File Advanced	*must, may, might, can't, should*	*appear, it seem*	*apparently, definitely,*	*bound, sure, likely, unlikely, probably*	*according to the study, passive voice, discourse markers*
Headway Advanced	*must, can't, should, have, can, could, would, might, may*	*seem, appear, wonder, hope, think*	*possibly*	*possible, surprised*	*discourse markers, past continuous, 2nd conditional* *Passive voice*
Language Leader Advanced	*core modal auxiliaries to express: likelihood, probability, possibility, ability, permission, requests, obligation, necessity, deduction, lack of obligation, obligation not to do something, advice, future possibility*	–	⊢	–	*quantifiers, conditional sentences "useful phrases": I don't think it's feasible. That doesn't sound important to me. There may be some truth in the argument… To same extent that is true, but… An alternative solution could be to…*
Advanced Outcomes	*would*	*seem, strike, come across*	*apparently, evidently, personally, hopefully, realistically, theoretically, presumably, ideally, surprisingly, technically, frankly, luckily*	–	*conditional sentences,*

- (RQ5) Do contemporary high-level academic writing reference books contain advice on hedges/hedging used in PhD theses/dissertations?

- (H7) Contemporary high-level academic writing reference books contain advice on hedges/hedging in MA or PhD theses/dissertations. √ **Only to a very limited degree.**

Research Informed Teaching: EAP application

Selected bibliography

Crompton, P. (1997). Hedging in academic writing: some theoretical problems. *English for Specific Purposes* 16: 271-287.

Fraser, B. (2010). *Pragmatic competence: the case of hedging.* Emerald Group Publishing Limited. Retrieved May 25, 2013 from http://www.bu.edu/sed/files/2010/10/2010-Pragmatic-Competence-The-Case-of-Hedging.pdf

Giltrow, J. (1995). *Academic writing: writing and reading across the disciplines*. Ontario, Canada: Broadview Press Ltd.

Hayland, K. (1996). Talking to the academy: forms of hedging in science research articles. *Written Communication* 3: 251-281.

Hyland, K. (1998). *Hedging in scientific research articles.* Amsterdam: John Benjamins Publishing Company.

Hinkel, E. (2002). *Second language writers' text*. Mahwah, NJ: Lawrence Erlbaum Associates.

Lakoff, G. (1972). *Hedges: a study in meaning criteria and the logic of fuzzy concepts.* Papers from the Eighth Regional Meeting of the Chicago Linguistic Society, 183-228. Reprinted in Journal of Philosophical Logic, 1973, 2: 4, 458-508, and in D. Hockney et al. (eds.). Contemporary research in philosophical logic and linguistic semantics. Dodrecht: Fortis, 221-271.

Markkanen, R. & Schröder, H. (1989). Hedging as a translation problem in scientific texts. *Special Languages: From Human Thinking to Thinking Machines.* Eds C. Laurén & M. Nordman. Clarendon: Multilingual Matters. 171-179.

Schmied, J. (2013). English for academic purposes: contrastive perspectives in the curriculum. *Research in English Language & Linguistics, 7*, 19-40.