

# Table of contents

Acknowledgements ix

List of tables xi

List of figures xv

## CHAPTER 1

### Introduction 1

- 1.1 Academic research writing: One register or many? 1
  - 1.1.1 A note on 'register' 6
  - 1.1.2 Goal of the present book 7
- 1.2 The linguistic characteristics of academic writing 8
- 1.3 Linguistic variation and disciplinary writing 10
- 1.4 Trends and gaps in the study of disciplinary writing 14
- 1.5 Overview of the book: Applying corpus analytical approaches to disciplinary register variation 21

## CHAPTER 2

### Describing the domain of academic journal writing 27

- 2.1 Introduction 27
- 2.2 Surveying the domain of disciplinary journal writing 29
  - 2.2.1 Procedures 29
  - 2.2.2 A taxonomy of academic journal registers 31
  - 2.2.3 Some issues in applying a taxonomy of research articles 35
- 2.3 Journal registers in the disciplines 36
- 2.4 Implications for corpus design 38

## CHAPTER 3

### Building and analyzing the Academic Journal Register Corpus 41

- 3.1 Introduction 41
- 3.2 Corpus collection procedures 41
  - 3.2.1 Formation of operational definitions for journal registers in specific disciplines 42
  - 3.2.2 Journal and article selection 43
  - 3.2.3 File conversion and clean-up 44
- 3.3 Corpus description: The Academic Journal Register Corpus 45

3.4	Corpus annotation	46
3.4.1	‘Tagging’: Part of speech annotation	46
3.4.2	Accuracy of automatic tagging	46
3.5	Overview: Procedures for quantitative corpus analysis	50
CHAPTER 4		
	<b>The situational characteristics of the Academic Journal Register Corpus</b>	<b>53</b>
4.1	Introduction	53
4.2	Motivating a new situational framework for journal registers	53
4.3	A framework for the situational characteristics of journal registers	55
4.3.1	Participants	57
4.3.2	Textual layout and organization	57
4.3.3	Setting	59
4.3.4	Subject/topic	59
4.3.5	Purpose	61
4.3.6	Nature of data or evidence	62
4.3.7	Methodology	63
4.3.8	Explicitness of research design	64
4.4	The situational characteristics of the Academic Journal Register Corpus	65
4.4.1	Common characteristics across journal registers	65
4.4.2	Theoretical articles in philosophy	70
4.4.3	Qualitative articles in history	72
4.4.4	Qualitative and quantitative articles in political science	74
4.4.5	Qualitative and quantitative articles in applied linguistics	75
4.4.6	Quantitative articles in biology	76
4.4.7	Quantitative and theoretical articles in physics	78
4.5	Trends in the situational characteristics of the Academic Journal Register Corpus	80
CHAPTER 5		
	<b>A lexical and grammatical survey</b>	<b>83</b>
5.1	Introduction	83
5.2	Grammatical variation in academic prose	84
5.3	Carrying out a lexical and grammatical survey	85
5.4	Distribution of core grammatical features	87
5.4.1	Nouns	89
5.4.2	Verbs	94
5.4.3	The verb phrase: Passive voice	100
5.4.4	The verb phrase: Tense and aspect	103
5.4.5	Personal pronouns	106
5.5	Summing up: Lexical and grammatical variation	110

## CHAPTER 6

**Structural complexity in journal registers** 113

- 6.1 Introduction 113
- 6.2 Features of elaboration and compression in academic prose 114
- 6.3 Carrying out a study of structural complexity 116
- 6.4 The use of features of structural elaboration and compression 118
  - 6.4.1 Clausal elaboration 119
  - 6.4.2 Phrasal compression 123
  - 6.4.3 Intermediate features: Clausal modifiers in the noun phrase 125
- 6.5 Summing up: Clausal elaboration and phrasal compression 127
- 6.6 Conclusions 131

## CHAPTER 7

**A multi-dimensional analysis of journal registers** 133

- 7.1 Introduction 133
- 7.2 Background: Multi-dimensional analyses of academic language 134
- 7.3 Carrying out a new multi-dimensional analysis 137
  - 7.3.1 Initial factor analyses to determine linguistic variables 137
  - 7.3.2 Final factor analysis 141
  - 7.3.3 Calculating and comparing factor scores across disciplines and registers 142
- 7.4 Dimensions of variation in academic journal registers in 6 disciplines 143
  - 7.4.1 Dimension 1: Academic involvement and elaboration vs. informational density 143
  - 7.4.2 Dimension 2: Contextualized narration vs. procedural discourse 154
  - 7.4.3 Dimension 3: Human vs. non-human focus 159
  - 7.4.4 Dimension 4: 'Academese' 164
- 7.5 Conclusions 166

## CHAPTER 8

**A Synthesis: What do we know?** 169

- 8.1 Introduction 169
- 8.2 Summing up: Linguistic variation in the Academic Journal Register Corpus 170
  - 8.2.1 How does language use vary across discipline? 170
  - 8.2.2 How does language use vary across academic journal registers? 174
- 8.3 Three grammatical analyses and future directions 179
  - 8.3.1 What have we learned from three complementary approaches? 180
  - 8.3.2 Future research using corpus analytical techniques to investigate variation in academic journal registers 181

8.3.3	Implications: Future linguistic features of interest	182
8.3.4	Implications: Corpus design for studies of disciplinary writing	184
	<b>References</b>	<b>187</b>
	APPENDIX A	
	<b>Journals examined during taxonomy development</b>	<b>199</b>
	APPENDIX B	
	<b>Reliability of automatic tags</b>	<b>201</b>
	APPENDIX C	
	<b>Semantic classes of nouns, verbs and adjectives</b>	<b>205</b>
	APPENDIX D	
	<b>Full factorial structure matrix for the four-factor solution</b>	<b>209</b>
	APPENDIX E	
	<b>Scree plot of the four-factor solution</b>	<b>213</b>
	APPENDIX F	
	<b>Significance testing for four-factor solution</b>	<b>215</b>
	<b>Index</b>	<b>221</b>