

Contents

PREFACE	XIII
0. Author's preface	XV
0.1. The environment of this book	XV
0.1.1. Changes in linguistic studies	XV
0.1.2. The growth of scientific and technical knowledge	XVI
0.1.3. Lowering of social barriers	XVII
0.1.4. Changes in communication	XVIII
0.1.5. Changes in the role of English	XX
0.2. The contents and scope of this book	XXI
0.2.1. Comparison with other studies	XXII
0.2.2. The readership	XXIII
0.3. Acknowledgements	XXIV
1. Introduction	1
1.1. Problems concerning the definition and description of special languages	2
1.1.1. Special languages and the system of language	2
1.1.2. Special languages as a social phenomenon	3
1.1.3. Special languages in communication	3
1.1.4. Special languages and special knowledge	4
1.1.5. Special languages and their use	4
1.1.6. Types of special text units	5
1.1.7. The effectiveness of special languages	5
1.2. The approach to these problems	5
1.2.1. The pragmatic approach	6
1.2.2. The semantic approach	8
1.2.3. The syntactic approach	9
1.3. Methodology	10
1.3.1. Terminology	10
1.4. Organisation of content	10
2. Functions of language	13
2.1. Definitions of language	13
2.2. The nature of language and special languages	14
2.2.1. The referential nature of language	14
2.2.2. The systematic nature of language	15
2.2.3. The voluntary nature of language	16
2.2.4. The communal nature of language	17

2.3.	The uses of language	17
2.3.1.	Uses and functions	17
2.3.2.	Uses of language	18
2.3.3.	The communicative use of language	18
2.3.4.	The classificatory use of language	19
2.3.4.1.	The 'ideational' use of language.	20
2.3.5.	Uses of special languages	21
2.4.	The intentions of speech acts	22
2.4.1.	Speech acts	22
2.4.2.	Intentions	23
2.4.3.	Types of intention.	25
2.4.3.1.	Informative speech acts	25
2.4.3.2.	Evaluative speech acts	26
2.4.3.3.	Directive speech acts	27
2.4.3.4.	Phatic speech acts	28
2.4.4.	Mixed intentions	28
2.4.5.	An example of intention analysis	28
3.	Languages and sub-languages.	31
3.1.	Originality and conformity in language	31
3.1.1.	The notion of rule dependence in linguistics	31
3.1.2.	Norms and rules in other systems	32
3.1.3.	The nature of linguistic rules and norms	33
3.2.	The linguistic norm	33
3.3.	The social norm	35
3.3.1.	Motivation of the social norm	35
3.3.2.	Modes of operation	36
3.3.3.	Areas of operation	36
3.3.4.	Linguistic manifestations	37
3.4.	Development of special languages	38
3.4.1.	Linguistic features of special languages	40
3.5.	Norms and standards.	40
3.5.1.	Norms – standards, natural – artificial languages	41
4.	The communication process.	43
4.1.	A model of the communication process	43
4.1.1.	Components of the model	44
4.1.2.	The coding process	45
4.1.3.	The channel and the noise factor	47
4.1.4.	The general conditions of communication	47
4.2.	Special subject communication	50
4.3.	The conditions of special subject communication	52
4.3.1.	The intention condition	52
4.3.2.	The knowledge condition	53
4.3.3.	The code condition	54
4.4.	The nature of the code	55
4.4.1.	Code units	56

4.4.1.1.	Syntactic criteria	56
4.4.1.2.	Semantic criteria	57
4.4.1.3.	Pragmatic criteria	57
4.4.2.	Multifunctionality of code	59
4.4.3.	Situation dependency	61
4.4.4.	Redundancy of code and coding	62
4.4.5.	Openness of code	63
4.5.	A definition of special languages	63
4.5.1.	Special language – dialects – sociolects	63
4.5.1.1.	Pragmatic and linguistic differences	64
4.5.2.	Special languages as subsystems	65
4.5.3.	The social norm of special languages	67
4.5.4.	Definition	68
5.	The nature of special reference	70
5.1.	A theory of reference	70
5.1.1.	A model of knowledge	70
5.1.2.	Disciplines	72
5.1.3.	Social norms and knowledge	72
5.1.4.	Knowledge and reference	73
5.1.4.1.	Social norm and types of reference	74
5.2.	Special subject codes	74
5.2.1.	Words and terms	75
5.2.2.	Standardised terms	76
5.3.	The process of designation	76
5.3.1.	Linguistic methods of designation	78
5.3.2.	The creation of terminological systems	79
5.3.3.	The standardisation process	80
5.3.4.	Problems in designation	83
5.4.	Reference in usage	83
5.4.1.	Methods of referring	85
5.4.2.	Special reference in syntactic relationships	86
6.	Special speech acts and message types	87
6.1.	Traditional forms	87
6.2.	The environment and the situation of the speech act	88
6.2.1.	The environment	88
6.2.2.	The stimulus of the speech act	90
6.2.2.1.	Intention	91
6.2.3.	The situation	92
6.2.3.1.	Personal factors	93
6.2.3.2.	Temporal factors	95
6.2.3.3.	Spatial factors	96
6.3.	The topic of the speech act	96
6.3.1.	Horizontal and vertical stratification	96
6.3.2.	Aspects	97
6.3.3.	Levels of expression and reference	100

6.3.4.	Interaction of aspect and level	102
6.4.	Choices in the speech act	103
6.4.1.	Means of communication	103
6.4.2.	Message types	104
6.4.3.	Modes of expression	108
6.5	The major message forms	109
6.5.1.	The dialogue	109
6.5.2.	The memo.	112
6.5.3.	The report.	114
6.5.4.	The schedule.	118
6.5.5.	The essay	120
7.	Typology of special forms	124
7.1.	Traditional forms and major message types	124
7.1.1.	Form and the intention condition	124
7.1.2.	Primary and secondary characteristics	126
7.1.3.	Forms and discourse analysis	127
7.2.	Designations for texts and text segments	128
7.2.1.	Types of great generality	128
7.2.2.	Relaxed forms	129
7.2.3.	Broad and collective terms	129
7.2.4.	Derived forms	130
7.2.5.	Text segments and partial text segments.	131
7.2.6.	Names of the material object	133
7.2.7.	Mimetic forms	133
7.3.	Subcategories of major text types	134
7.3.1.	Types of special dialogues	135
7.3.2.	Types of special memos	137
7.3.3.	Types of special reports	138
7.3.4.	Types of special schedules	143
7.3.5.	Types of special essays	145
7.3.6.	Traditional forms in communicative situations	146
7.4.	Description and definition of traditional forms	147
8.	The syntagmatic level	182
8.1.	The special languages of science and technology	182
8.2.	Informative function of SE	184
8.2.1.	Method of syntax description	185
8.3.	Sentence types	186
8.3.1.	Declarative sentences	186
8.3.1.1.	Connective verbs in declarative sentences	186
8.3.1.2.	Inversion in declarative sentences.	189
8.3.1.3.	Sentences expressing cause and effect	190
8.3.1.3.1.	Verbs	190
8.3.1.3.2.	Conjuncts	190
8.3.1.3.3.	Prepositions	191
8.3.1.3.4.	-ing form	191

8.3.1.3.5.	Relative clauses	192
8.3.1.3.6.	Clauses expressing purpose or result	193
8.3.1.3.7.	Quantitative dependence	193
8.3.1.3.8.	Adverbial clauses	194
8.3.1.3.9.	Conditional sentences	195
8.3.1.4.	Sentence links	198
8.3.2.	Interrogative sentences	201
8.3.3.	Imperative sentences	202
8.3.4.	Exclamative sentences	204
8.4.	Finite verb forms	204
8.4.1.	Tenses	206
8.4.1.1.	Simple present	207
8.4.1.2.	Present perfect	207
8.4.2.	Passive voice	209
8.4.3.	Modal auxiliaries	210
8.4.3.1.	will	210
8.4.3.2.	should	211
8.5.	Non-finite verb forms	212
8.5.1.	The infinitive	213
8.5.2.	The past participle	214
8.5.3.	The -ing form	215
8.6.	Nominal groups	219
8.6.1.	Premodification	220
8.6.2.	Postmodification	221
8.6.2.1.	Relative clauses	222
8.6.2.2.	Reduced relative clauses	223
8.7.	Low frequency structures in SE	224
8.7.1.	Idioms	225
8.7.2.	Personal pronouns	226
8.7.3.	Contracted verb forms	227
9.	The lexical level	230
9.1.	Lexical characteristics of special texts	231
9.1.1.	Lexical items and text forms	231
9.1.2.	Identification of terminological units	232
9.1.3.	Frequency of special vocabulary	233
9.1.3.1.	Frequency counts for subject identification	236
9.1.3.2.	Density of special vocabulary	238
9.2.	The form of special lexicon	239
9.2.1.	The nature of content forms	239
9.2.2.	The nature of expression forms	243
9.2.2.1.	The lexical potential of English	244
9.2.2.2.	The development of English	244
9.2.2.2.1.	The change from synthesis to analysis	244
9.2.2.2.2.	The sources of borrowing	245
9.2.2.2.3.	The structural stability of English	246

9.2.2.3.	The international use of English	247
9.2.3.	Motivation for designation	249
9.3.	Modes of designation	251
9.3.1.	Use of existing designations	252
9.3.1.1.	Polysemy	252
9.3.1.2.	Redefinition	255
9.3.2.	Modification of existing resources	257
9.3.2.1.	Affixation	257
9.3.2.1.1.	Prefixes	259
9.3.2.1.2.	Suffixes	260
9.3.2.2.	Backformation	264
9.3.2.3.	Compounding	265
9.3.2.3.1.	Noun compounds	267
9.3.2.3.2.	Compounds with particles	272
9.3.2.3.3.	Multiple compounds	272
9.3.2.3.4.	Compound adjectives	274
9.3.2.3.5.	Compound verbs	275
9.3.2.4.	Conversion	275
9.3.2.5.	Compression	277
9.3.3.	The use of new resources	280
9.3.3.1.	Neologisms	280
9.3.3.2.	Borrowing	284
9.3.4.	General rules for term formation	287
9.3.4.1.	Appropriateness	288
9.3.4.2.	Precision	290
9.3.4.3.	Economy	290
9.4.	Nomenclatures	291
9.5.	List of prefixes and suffixes	295
10.	The phonemic and graphemic levels	301
10.1.	Variation in written and spoken form	302
10.1.1.	Pronunciation	302
10.1.2.	Spelling	304
10.1.3.	Punctuation and other orthographic signs	306
10.2.	Special language codes	307
10.2.1.	Non-linguistic substance of expression	308
10.2.1.1.	Programming languages	311
10.2.2.	Visual codes	311
11.	The measurement of efficacy of communication	314
11.1.	Information theoretic considerations	314
11.1.1.	Efficacy and norms	315
11.2.	Economy	316
11.2.1.	Economy in forms	317
11.2.2.	Syntactic economy	318
11.2.3.	Lexical economy	319
11.3.	Precision	319

11.3.1.	Precision in forms	321
11.3.2.	Syntactic precision	321
11.3.3.	Lexical precision	322
11.4.	Appropriateness	323
11.4.1.	Appropriateness in forms	324
11.4.2.	Syntactic appropriateness	326
11.4.3.	Lexical appropriateness	326
11.5.	The efficacy of methods of designation	327
11.6.	'What is good style for engineering writing?'	328
12.	Standardisation	329
12.1.	The scope for linguistic regularisation	329
12.2.	Standardisation of terminology	330
12.2.1.	The efficacy of standards	331
12.3.	British Standards	332
12.3.1.	Purpose and types of standards	332
12.3.1.1.	Specifications	333
12.3.1.2.	Methods of test and analysis	334
12.3.1.3.	Codes of practice.	335
12.3.1.4.	Glossaries	335
12.3.2.	BSI committees and procedures	337
12.3.3.	Arrangement of the content of British Standards.	337
12.4.	British Standards editorial and typographical conventions.	339
12.5.	Fundamental British Standards	341
12.6.	Fundamental international standards.	342
	BIBLIOGRAPHY	344
	INDEX	364