

Contents

Preface vii

- 1 Introduction** 1
 - 1.1 The role of the computer in learning 2
 - 1.2 The advantages of the computer in language learning 4
 - 1.3 The disadvantages of the computer in language learning 6
 - 1.4 Towards a synthesis 10

- 2 Hardware and software** 12
 - 2.1 Hardware 12
 - 2.2 Software and courseware 22
 - 2.3 Conclusion 26

- 3 The development and background of CALL** 27
 - 3.1 CAL in language teaching: a short history (1965 onwards) 28
 - 3.2 Programmed instruction 36
 - 3.3 Computational linguistics 39
 - 3.4 Machine translation 41
 - 3.5 Conclusion 43

- 4 The learner, language and the computer** 45
 - 4.1 The learner and the computer 46
 - 4.2 Natural language and the computer 49
 - 4.3 Natural language and the learner 53
 - 4.4 Review of the triangle 57
 - 4.5 Conclusion 62

- 5 An example: GERAD** 64
 - 5.1 The purpose of the package 64
 - 5.2 The package in use 65
 - 5.3 Technical details 73
 - 5.4 Taking stock 74
 - 5.5 Conclusion 76

6	Computers, computer programming and programming languages	77
6.1	A brief introduction to computers and computer programming	78
6.2	Programming languages	82
6.3	High-level languages	84
6.4	The vocabulary and grammar of a high-level programming language	87
6.5	A simple CALL program in BASIC and in PASCAL	95
6.6	Author languages	96
6.7	Conclusion	99
7	The scope of the computer in language teaching	101
7.1	Activities in the language-teaching classroom	101
7.2	Areas of language teaching suited to CALL	103
7.3	Monitoring	113
7.4	The integration of CALL into language teaching	116
7.5	How effective is CALL?	119
7.6	Conclusion	122
8	Developing areas	123
8.1	The computer as a dictionary	123
8.2	Running text stored on the computer	126
8.3	Advances in linguistics and in artificial intelligence	127
8.4	Speech input/output	129
8.5	Computer graphics and computer-based videodisc systems	135
8.6	Conclusion	140
	Conclusion	142
	Useful addresses	144
	Bibliography	147
	Index	158