

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

**METACOGNITIVE, COGNITIVE, SOCIAL AND AFFECTIVE STRATEGY USE
IN FOREIGN LANGUAGE LEARNING: A COMPARATIVE STUDY**

A thesis presented in fulfilment of the requirements
for the degree
of PhD.
in Applied Linguistics at
Massey University

Cynthia Joan White
1993

ABSTRACT

This study examines the metacognitive, cognitive, social and affective strategy use of foreign language learners who are studying either in classroom situations or at a distance. The impact on learning strategy use of a number of variables is considered, relating to 1) the language learning context (mode of study, target language, level of study and language use opportunities) and 2) learner characteristics (age, gender, language learning experience, prior experience in learning the target language, motivation, proficiency).

The strategy use of learners is measured by means of 1) a self-report questionnaire (N=417) which also elicits relevant biographical information and 2) a verbal report procedure, the yoked subject technique, administered to a subsample of the questionnaire group (N=37). Canonical variate analysis was applied to the questionnaire data, and instances of strategy use were identified and classified in the verbal protocols using two independent raters.

Results indicated that the main influences on strategy use were mode of study and the age of learners; that distance learners were set further apart from classroom learners on metacognitive strategy use measures when the influence of the target language, proficiency, prior target language experience and level of study was considered; that learners who had had prior experience in learning the target language before enrolling in a university language course were maximally distinguished in their cognitive strategy use from learners without such prior experience; that mode of study exerted some influence on cognitive strategy use, but this was less than the influence of prior target language experience; that differences in cognitive strategy use between learners of French and learners of Japanese in the verbal report procedure could not be attributed solely to the influence of the target language; and that distance learners make less use of social strategies and greater use of affective strategies than their classroom counterparts.

Methodological and theoretical implications of the study are presented, and an appraisal is made of the usefulness of particular strategy use models for the investigation of language learning strategies. A number of tentative, practical recommendations from the study are proposed together with suggestions for further research.

ACKNOWLEDGEMENTS

I wish to express my appreciation to Dr. N.R. Watts, Prof. W.E. Tunmer and Prof. G.M. Cropp for their guidance and assistance throughout this research process. I am also grateful to Prof. K. Howe for the encouragement and constructive advice he provided on several occasions. Special thanks are due to Dr. Ganeshanandam who acted as the statistical consultant to this study; to Pamela Easton who acted as an assistant rater in the yoked subject procedure; and to the language teaching staff at Massey University for their co-operation, in particular Myreille Pawliez and Dr. Jean Anderson. I am particularly indebted to the language learners who participated in this project, and whose enthusiasm, interest and support proved a rewarding aspect of the study. I also wish to recognise the contribution of the Massey University Research Fund who provided the funds with which this research was carried out. Finally, I want to thank my family, particularly Bruce, Joan, Douglas and Maggie, for their generous support, and Caroline and Rebecca, for the many lively and happy diversions they provided through all of this.

CONTENTS

ABSTRACT	ii
ACKNOWLEDGEMENTS	iv
LIST OF FIGURES	xii
LIST OF TABLES	xiv
1 INTRODUCTION	
1.1 Background	1
1.2 Learning Strategies	4
1.3 Distance Education	6
1.4 The Research Problem	10
2 LITERATURE REVIEW	
2.1 Introduction	12
2.2 Early Studies	13
2.3 Metacognition	16
2.3.1 The Investigation of Metacognition in Language Learning	19
2.4 Definition and Classification	22
2.4.1 The Development of Classification Schemes	22
2.5 Factors Influencing Strategy Choice	25
2.5.1 Mode of Study	26
2.5.2 Target Language	26
2.5.3 Level of Study	28
2.5.4 Language Use Opportunities	31
2.5.5 Age	32
2.5.6 Gender	32
2.5.7 Language Learning Experience	34
2.5.8 Prior Experience in the Target Language	35
2.5.9 Motivation	35
2.5.10 Proficiency	38

2.6	Conclusion	41
3	METHODOLOGY	45
3.1	Population and Setting	45
3.2	Subjects	46
	3.2.1 Selection	46
	3.2.2 Characteristics of Subjects	48
	<i>Questionnaire Study</i>	48
	<i>Verbal Report Study</i>	53
3.3	The Research Design	53
	3.3.1 Variables	53
	<i>Strategy Use Variables</i>	55
	<i>Context of Learning Variables</i>	60
	<i>Learning Characteristic Variables</i>	61
	3.3.2 Research Questions	62
3.4	Instrumentation	64
	3.4.1 Choice of Instrument	64
3.5	The Questionnaire	67
	3.5.1 Strengths and Limitations of the Instrument	67
	3.5.2 Development of the Instrument	68
	3.5.3 Pilot Study	70
	3.5.4 Questionnaire Revision	71
	3.5.5 Instructions and Procedures	73
	<i>Time</i>	73
	<i>Instructions</i>	74
	<i>Procedures: Classroom Learners</i>	74
	<i>Procedures: Distance Learners</i>	74
	3.5.6 Methods of Processing Data	75
3.6	The Verbal Report Procedure	75
	3.6.1 Limitations of Verbal Reports	76
	3.6.2 The Yoked Subject Technique	78
	3.6.3 Pilot Study	79
	3.6.4 Instructions and Procedures	79

	<i>Time</i>	79
	<i>Instructions</i>	79
	<i>Procedures</i>	81
	3.6.5 Methods of Processing Data	81
3.7	Validity and Reliability	82
	3.7.1 Internal Validity	82
	<i>Subject Selection</i>	83
	<i>Instrumentation</i>	83
	<i>Task Directions</i>	84
	<i>Adequate Data Base</i>	84
	3.7.2 External Validity	85
	<i>Subject Selection</i>	85
	<i>Data Collection Methodology</i>	85
	<i>Ecological Validity</i>	86
	3.7.3 Reliability	86
	<i>Internal Consistency Reliability</i>	86
	<i>Interrater Reliability</i>	87
3.8	Limitations	87
3.9	Summary	89
4	RESULTS: QUESTIONNAIRE STUDY	90
	4.1 Methods of Analysing Data	90
	4.2 Metacognitive Strategy Use	93
	4.2.1 Frequency of Metacognitive Strategy Use	93
	4.2.2 Influences on Metacognitive Strategy Use	94
	4.2.3 The Influence of Mode of Study on MSU Variables	98
	4.2.4 The Influence of Age on MSU Variables	103
	4.2.5 Summary	107
	4.3 Interaction of Variables with MSU and Mode of Study	109
	4.3.1 Level of Study	110
	4.3.2 Proficiency	114
	4.3.3 Target Language	117

4.3.4	Prior Target Language Experience	120
4.3.5	Summary	123
4.4	Cognitive Strategy Use	124
4.4.1	Frequency of Cognitive Strategy Use	124
4.4.2	Influences on Cognitive Strategy Use	125
4.4.3	The Influence of Prior Target Language Experience on CSU Variables	126
4.4.4	The Influence of Mode of Study on CSU Variables	129
4.4.5	Summary	133
4.5	Social Strategy Use	134
4.5.1	Frequency of Social Strategy Use	134
4.5.2	Influences on Social Strategy Use	136
4.5.3	Summary	138
4.6	Affective Strategy Use	139
4.6.1	Frequency of Affective Strategy Use	139
4.6.2	Influences on Affective Strategy Use	139
4.7	Summary	140
5	RESULTS: VERBAL REPORT STUDY	142
5.1	Method for Analysing Verbal Report Data	142
5.2	Productivity of the Yoked Subject Technique	145
5.2.1	Range of Strategies	146
5.3	The Classification of Strategies	147
5.3.1	Metacognitive Strategies	147
5.3.2	Cognitive Strategies	151
5.3.3	Social Strategies	156
5.3.4	Affective Strategies	156
5.3.5	Strategy Combinations	157
5.4	The Influence of Mode of Study on Strategy Use	159
5.4.1	The Influence of Mode of Study on MSU Reports	162
	<i>Summary</i>	168

5.4.2	The Influence of Mode of Study on CSU Reports	168
5.4.3	The Influence of Mode of Study on SSU Reports	172
5.4.4	The Influence of Mode of Study on SSU Reports	173
5.5	The Influence of the Target Language on Strategy Use	174
5.5.1	The Influence of the Target Language on MSU Reports	176
5.5.2	The Influence of the Target Language on CSU Reports	180
	<i>Summary</i>	182
5.5.3	The Influence of the Target Language on SSU Reports	183
5.5.4	The Influence of the Target Language on ASU Reports	184
5.6	Summary	185
6	DISCUSSION	187
6.1	Classification of Strategy Use	187
6.2	Frequency of Strategy Use	191
6.2.1	Metacognitive Strategy Use	191
6.2.2	Cognitive Strategy Use	192
6.2.3	Social Strategy Use	193
6.2.4	Affective Strategy Use	193
6.3	The Influence of Mode of Study	194

6.3.1	Mode of Study and Metacognitive Strategy Use	195
6.3.2	Mode of Study and Cognitive Strategy Use	199
6.3.3	Mode of Study and Social Strategy Use	200
6.3.4	Mode of Study and Affective Strategy Use	201
6.4	Further Influences on Mode and Strategy Use	202
6.5	The Target Language and Strategy Use	205
6.6	The Influence of the Learning Context	209
6.6.1	Level of Study and Strategy Use	209
6.6.2	Language Use Opportunities and Strategy Use	209
6.7	The Influence of Learner Characteristics	210
6.7.1	Age and Metacognitive Strategy Use	210
6.7.2	Prior TL Experience and Cognitive Strategy Use	214
6.7.3	Proficiency and Strategy Use	216
6.7.4	The Influence of Further Learner Characteristics on Strategy Choice	216
	<i>Gender</i>	216
	<i>Language Learning Experience</i>	217
	<i>Motivation</i>	217
6.8	Summary	218
7	CONCLUSION	220
7.1	Theoretical Implications	220
7.2	Methodological Implications	222
7.3	Practical Applications of the Study	224
7.4	Additional Research	226
8	SUMMARY	231

APPENDICES	
Appendix A	239
Sample Pilot Questionnaire (German)	
Appendix B	253
Sample Questionnaire (Chinese): Main Study	
Appendix C	
Letter to Questionnaire Subjects	267
Appendix D	
Sample Yoked Subject Instructions	268
Appendix E	
Sample Transcripts of Yoked Subject Verbal Reports	270
BIBLIOGRAPHY	275

LIST OF FIGURES

- 3.1 Age Distribution of Subjects.
- 3.2 Distribution of Subjects by TL and Level of Study.
- 3.3 Language Learning Experience of Subjects. TL as Groups.
- 3.4 Language Learning Experience of Subjects. Level of Learning as Groups.
- 3.5 Context of Prior TL Experience.
- 4.1 CVA of MSU Variables. Mode of Study as Groups.
- 4.2 CVA of MSU Variables. Age as Groups.
- 4.3 Frequency of Use of Self-Management. Classroom and Distance Learners.
- 4.4 Frequency of Use of Advance Organisation. Classroom and Distance Learners.
- 4.5 Frequency of Use of Revision. Classroom and Distance Learners.
- 4.6 CVA of MSU Variables. Learners under thirty and over thirty as Groups.
- 4.7 CVA of MSU Variables. 200-level Classroom and Distance Learners as Groups.
- 4.8 A Comparison of Metacognitive Strategy Use. 200-level Classroom and Distance Learners.
- 4.9 CVA of MSU Variables. Grade B Classroom and Distance Learners as Groups.
- 4.10 A Comparison of Metacognitive Strategy Use. Grade 'B' Classroom and Distance Learners.
- 4.11 CVA of MSU Variables. Classroom and Distance Learners of Japanese as Groups.
- 4.12 A Comparison of Metacognitive Strategy Use. Classroom and Distance Learners of Japanese as Groups.
- 4.13 CVA of MSU Variables. Classroom and Distance Learners with No Prior TL Experience as Groups.

- 4.14 A Comparison of Metacognitive Strategy Use. Classroom and Distance Learners with No Prior TL Experience as Groups.
- 4.15 CVA of CSU Variables. Prior TL Experience as Groups.
- 4.16 A Comparison of Cognitive Strategy Use. Prior TL Experience as Groups.
- 4.17 CVA of CSU Variables. Mode of Study as Groups.
- 4.18 A Comparison of CSU Variables. Mode of Study as Groups.
- 4.19 Frequency of Use of Questioning.
- 4.20 Frequency of Use of Co-operation.
- 4.21 Frequency of Use of Questioning. Classroom and Distance Learners as Groups.
- 4.22 Frequency of Use of Co-operation. Classroom and Distance Learners as Groups.
- 5.1 Mean Scores for Reported Strategy Use. Classroom and Distance Learners.
- 5.2 Categories of Reported Strategy Use. Classroom and Distance Learners.
- 5.3 Mean Scores for MSU Categories. Classroom and Distance Learners.
- 5.4 A Comparison of Categories of Strategy Use. Learners of French and Japanese.
- 5.5 Mean Scores for Reported Strategy Use. Learners of French and Japanese.
- 5.6 Mean Scores for MSU Categories. Learners of French and Japanese.

LIST OF TABLES

- 3.1 Distribution of Verbal Report Subjects.
- 3.2 Metacognitive Strategy Descriptions.
- 3.3 Cognitive Strategy Descriptions.
- 3.4 Social Strategy Descriptions.
- 3.5 Affective Strategy Descriptions.
- 3.6 Distribution of Subjects in Questionnaire Pilot Study.
- 4.1 Frequency of Metacognitive Strategy Use.
- 4.2 Influences on Metacognitive Strategy Use.
- 4.3 Standardised Coefficients and Correlation Coefficients for MSU Variables. Mode of Study as Groups.
- 4.4 Standardised Coefficients and Correlation Coefficients for MSU Variables. Age of Learners as Groups.
- 4.5 Mean Scores for Use of Metacognitive Strategies by Age Groups.
- 4.6 Mean Scores for Use of Metacognitive Strategies by Age Groups. Classroom Learners.
- 4.7 Mean Scores for Use of Metacognitive Strategies by Age Groups. Distance Learners.
- 4.8 Duncan's test for the Comparison of Means. Age Groups for the First Canonical Variate.
- 4.9 Values for Variables Interacting with Mode of Study and MSU Variables.
- 4.10 Standardised Coefficients and Correlation Coefficients for MSU Variables. 200-level Classroom and Distance Learners as Groups.
- 4.11 Standardised Coefficients and Correlation Coefficients for MSU Variables. Grade 'B' Classroom and Distance Learners as Groups.
- 4.12 Standardised Coefficients and Correlation Coefficients for MSU Variables. Classroom and Distance Learners of Japanese as Groups.