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**CAUSAL METACOGNITIVE-MOTIVATIONAL MODELS OF
READING COMPREHENSION IN READING DISABLED
AND NORMAL ACHIEVING READERS**

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6389

**A thesis presented in partial
fulfilment of the requirements for
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ABSTRACT

Contemporary models of reading indicate that reading achievement and impairment are the products of the complex interaction of motivational, cognitive and metacognitive processes. Most previous research has relied on correlational studies to examine the links amongst these variables. Given the complex relationships of these variables, research designs which examine these constructs simultaneously and which establish causal relationships are needed. The dearth of interactive research with different populations is surprising considering that reliable and theoretically meaningful models that are generally invariant across subpopulations would contribute much towards theoretical parsimony and progress of educational research.

In light of the above considerations, the present study was designed with the primary goal of replicating and extending a previous test of a structural model of reading achievement. The main goal was to explain and predict both reading achievement and impairment from the complex and multicomponential perspective of a model of metacognition. Specifically, this involved an examination of the causal influences of young adolescent students' attributional style, and self-efficacy on metacognitive knowledge and their use of cognitive and metacognitive strategies. In addition, these same variables were examined to see how they related to their reading comprehension performance and how the relationships differed in normal achieving (NA) and reading disabled children (RD). A secondary goal of this study was the investigation of variables that would distinguish between RD and NA readers.

There were three phases involved in the present study. Phase 1 concerned sample selection and involved administration of a short-form of the Wechsler Intelligence Scale for Children - Revised. Selection of RD children was based on a six-stage multidefinitonal approach. A sample of NA readers with reading achievement consistent with their age was also identified. A total of 203 NA readers and 204 RD readers were selected to participate in this study.

The data were collected in Phases 2 and 3. Phase 2 involved administration of two self-report questionnaires which examined children's attributional style, use of strategies, metacognitive knowledge, and self-efficacy for reading. Phase 3 involved individually administered reading interviews. All questionnaires and reading interviews were administered within a two week period.

The relationships among general intellectual ability, attributions, self-efficacy, metacognitive knowledge, metacognitive/cognitive strategy use, and reading comprehension in NA and RD children were evaluated using four models. The results were analyzed using structural equation modelling procedures. The proposed models provided a statistically adequate fit for the obtained data, accounting for about 60% of the variance in student performance. Several structural relationships were similar across groups suggesting that the metacognitive-motivational systems of NA and RD children were rather similar. For instance, the relationships between attributional style (as a single latent construct), efficacy, metacognitive knowledge, cognitive strategy use and metacognitive strategy use were similar across groups.

Nearly all of the structural correlations and the direct and indirect coefficients were in the theoretically expected direction. In both groups, students' adaptive attributional beliefs significantly predicted self-efficacy and metacognitive knowledge. However, when the separate effects of attributional style were examined for each outcome, the results revealed that adaptive attributional style for failure was the only significant predictor of metacognitive knowledge. Furthermore, the attributional components varied in their impact on self-efficacy and these differential effects also varied across groups.

An important contribution of this study was the incorporation of "strategy use" in the model. When combined strategy use (both metacognitive and cognitive) was included in the model, metacognitive knowledge no longer had a direct impact on reading performance (comprehension), instead combined strategy use played a significant role in mediating this relationship. Self-efficacy as well as metacognitive knowledge predicted combined strategy use which in turn predicted reading comprehension. Closer examination of the components of combined strategy use revealed that only "metacognitive strategy use" directly predicted reading comprehension across groups. The mediating role played by cognitive strategy use in the relationship between metacognitive knowledge and comprehension performance differed across groups. Self-efficacy directly and positively predicted metacognitive knowledge and metacognitive/cognitive strategy use.

The results suggested that attributional style plays a pivotal role in the metacognitive development of both NA and RD children. A number of causal paths distinguished good from poor readers. They were the paths between ability and success/failure attributions, ability and performance, success/failure attributions and efficacy, cognitive strategy use and performance, and efficacy and performance. On the whole, motivational variables were more important in determining comprehension for RD children whilst metacognitive and cognitive strategy use variables were more important for achieving readers. The failure to develop an enriched metacognitive system in RD children was ascribed partially to the effects of their self-defeating attributions.

Attributional beliefs, self-efficacy, metacognitive knowledge, and cognitive strategy use uniquely discriminated between NA and RD children. These findings suggest that metacognitive and motivational variables combine effectively to distinguish between RD and NA readers. The results also provide support for the utility of adopting a multidefinitonal approach in defining RD children.

The findings from this study advance the argument that reading achievement and impairment should be studied using a multicomponential framework. The implications of this study's research findings for classroom practice and research methodology are reviewed. Limitations of the present study were also discussed.

DEDICATION

This dissertation is dedicated to the memory of

my Mother, *Thelma A. Pereira*

my Father, *Anthony P. Pereira*

and my Big Papa, *Elias P. Pereira*

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TABLE OF CONTENTS

	Page
Abstract	iii
Dedication	vi
Acknowledgements	vii
Table of Contents	ix
List of Tables	xv
List of Figures	xvi
 CHAPTER 1 INTRODUCTION AND OVERVIEW	1
1.1 Identifying some concerns in the achievement literature	1
1.2 Overview of the research to be undertaken	4
1.3 Outline of chapters	5
 CHAPTER 2 DEFINITIONS OF LEARNING AND READING DISABILITY	7
2.1 A definition that receives current consensus	9
2.2 Prevalence of learning disabilities	10
2.3 The concept of reading disability	11
2.3.1 Differences between reading disabled (RD) and poor readers	11
2.3.2 Variability of terms to describe reading disability	12
2.4 Common elements or assumptions across definitions	12
2.4.1 Intrinsic problem	13
2.4.2 Ability-achievement discrepancy	13
2.4.3 Exclusionary criteria	14
2.4.4 Uneven growth pattern	15
2.4.5 Specificity of academic problem	15
2.4.6 Low academic achievement	16
2.5 Discrepancy approach to defining reading disability	16
2.5.1 Limitations of the discrepancy-based approach	17
2.5.1.1 Limitations of using IQ in the assessment of discrepancy	17
2.5.1.2 Construct validity of the discrepancy approach	19
(i) Replicability of nonnormal distribution	19
(ii) Validity of differentiating learning disabilities based on IQ discrepancies	20
2.6 Multifaceted approaches to defining reading disability	21
2.7 Conclusion	23
 CHAPTER 3 METACOGNITION AND COGNITION AND THEIR RELATIONSHIP TO READING	24
3.1 Definition of metacognition	25
3.2 Theoretical issues concerning metacognition	26
3.2.1 The concept of strategy	27
3.2.2 Distinction between components of metacognition	27
3.2.3 Distinction between cognition and metacognition	28
3.2.3.1 Activities involved in cognitive and metacognitive strategies	29
(i) Reading for meaning and reading for remembering	30
3.2.4 Conceptual difficulties in linking metacognition to reading disabilities	31

3.3	Methodological issues concerning cognition and metacognition	32
3.3.1	Verbal report	32
3.3.2	Self-report questionnaires	33
3.3.3	Error detection	34
3.3.4	Conclusion	35
3.4	Empirical research regarding the relationships between cognition, metacognition, and performance	35
3.4.1	Relationship between metacognition and comprehension	36
3.4.2	Relationship between metacognitive knowledge and performance	36
3.4.3	Relationship between cognitive/metacognitive strategy use and performance	37
3.4.4	Relationship between metacognitive knowledge and cognitive/metacognitive strategy use	40
3.4.4.1	Inactive versus inefficient view of cognitive strategy deficits	43
3.5	Summary and conclusion	44
CHAPTER 4 MOTIVATIONAL FACTORS IN ACADEMIC PERFORMANCE		46
4.1	Self-efficacy	46
4.2	Causal Attributions	48
4.3	Relationship between self-efficacy and attributions	52
4.4	Methodological problems in measuring attributions and self-efficacy	52
4.4.1	Attributions	52
4.4.2	Self-efficacy	55
4.5	Summary	55
CHAPTER 5 THE RELATIONSHIPS BETWEEN METACOGNITIVE, COGNITIVE, AND MOTIVATIONAL VARIABLES		57
5.1	Triple Alliance Model	57
5.2	Borkowski's model of metacognition	58
5.2.1	Components in the metacognition model	59
5.2.2	Development of metacognitive components in a child	61
5.2.3	Relationships between components of the model	62
5.2.4	Implications of the metacognition model for RD children	64
5.2.5	Empirical research supporting aspects of Borkowski's model	66
5.3	The need for causal models	70
5.3.1	Causal models of reading achievement	71
5.3.1.1	Limitations of Carr et al.'s (1991) model	73
	(i) Methodological limitations	73
	(ii) Hypothesized relationships	75
	(iii) Statistical analyses	75
5.3.1.2	Summary	76
CHAPTER 6 RATIONALE FOR PRESENT STUDY		77
6.1	Primary goals of study	77
6.1.1	Testable interactive or multicomponential causal models	77
6.1.2	Issues in need of investigation	78
6.1.2.1	Replication of Carr et al.'s (1991) model	78
6.1.2.2	The mediating role of metacognitive knowledge and strategy use on the relationship between motivational beliefs and performance	79
6.1.2.3	The relative impact of self-efficacy and attributional style on metacognitive knowledge	81

6.1.2.4	The effect of self-efficacy on strategy use and performance	81
6.1.2.5	The influence and relative impact of cognitive and metacognitive strategy use on performance	82
6.1.2.6	The relative impact of success and failure attributions on efficacy and metacognitive knowledge	83
6.2	Hypothesized Models	84
6.2.1	Proposed General Model 1	85
6.2.1.1	Hypotheses	88
6.2.2	Proposed General Model 2	88
6.2.2.1	Hypotheses	90
6.2.3	Proposed General Model 3	90
6.2.3.1	Hypotheses	92
6.2.4	Proposed General Model 4	93
6.2.4.1	Hypotheses:	95
6.3	Secondary goals of study	95
6.3.1	Differences in motivational, cognitive, and metacognitive variables across groups	95
6.3.1.1	Hypotheses:	95
6.4	Summary	96
CHAPTER 7	STRUCTURAL EQUATION MODELLING	97
7.1	An introduction to structural equation modelling and the LISREL model	98
7.1.1	Model specification	100
7.1.1.1	Measurement model	101
7.1.1.2	Structural model	102
7.1.2	Other parameter matrices of LISREL	103
7.1.3	Types of model parameters	104
7.1.4	Model identification	107
7.1.5	Parameter estimation	108
7.1.6	Model evaluation	109
7.1.6.1	Goodness-of-fit indices	110
	(i) Measures of overall fit	110
	(ii) Detailed measures of fit	113
7.1.6.2	Comparison of nested models	115
7.2	Multisample model	117
7.3	Justification for LISREL-type models	118
7.4	LISREL formulation of reading performance models	120
7.4.1	Specification of Model 1 for the single sample situation	120
7.4.1.1	Measurement model	123
7.4.1.2	Structural model	125
7.4.1.3	Disturbance assumptions	125
7.4.1.4	Model assumptions	126
7.4.1.5	Identification of model	128
7.4.2	Method effects in self-report data	128
7.4.2.1	Respecification of Model 1 to include correlated errors	130
7.4.3	The multisample situation	132
7.4.3.1	Respecification of Model 1 to include the multisample situation	133
	(i) Measurement model	134
	(ii) Structural model	135
	(iii) Disturbance assumptions	136
	(iv) Identification of model	137

7.5	Advantages and limitations of using SEM techniques	138
7.6	Conclusion	140

CHAPTER 8	METHOD	141
8.1	Overview	141
8.2	Sample	142
8.2.1	Selection of reading disabled (RD) sample	142
8.2.2	Selection of normal achieving (NA) sample	145
8.2.3	Demographic information	146
8.3	Measures	148
8.3.1	Pilot tests	150
8.3.2	Ability	150
8.3.3	Achievement	151
8.3.3.1	Academic achievement	151
8.3.3.2	Reading comprehension performance	151
8.3.4	Causal attribution	152
8.3.5	Self-efficacy	153
8.3.6	Metacognitive knowledge for reading	154
8.3.7	Strategy use	157
8.3.7.1	Self-report measures of strategy use	157
8.3.7.2	Taped concurrent interview: Behavioral measure of strategy use	158
	(i) Passage	159
	(ii) Monitoring device (bleep)	161
	(iii) Interview coding form	161
8.4	Procedure	164
8.4.1	First phase	164
8.4.2	Second phase	165
8.4.3	Third phase	166
8.4.3.1	Training session for using the bleep	167
8.4.3.2	Interview	168
8.4.3.3	Reliability	169
8.5	Data analyses	171

CHAPTER 9	RESULTS	172
9.1	Descriptive statistics and correlations	172
9.2	Validation of selection procedures in defining RD children	176
9.3	Model testing	178
9.3.1	Preliminary LISREL analyses	180
9.3.1.1	Model modifications	181
9.3.1.2	Sensitivity analyses	183
9.3.1.3	Alternative factor structures for multifaceted constructs	184
	(i) Attributional style	185
	(ii) Strategy use	185
9.3.2	Test of hypothesized models	186
9.3.2.1	Test of proposed theoretical Model 1	190
	(i) Measurement model	190
	(ii) Structural model	196
9.3.2.2	Test of proposed theoretical Model 2	201
	(i) Measurement model	201
	(ii) Structural model	207

9.3.2.3	Test of proposed theoretical Model 3	211
	(i) Measurement model	211
	(ii) Structural model	216
9.3.2.4	Test of proposed theoretical Model 4	220
	(i) Measurement model	220
	(ii) Structural model	225
9.3.2.5	Summary of findings	230
9.3.3	Supplementary analyses	231
9.3.3.1	Test of impact of ethnicity and gender on hypothesized models	231
9.3.3.2	Replication of results using random sampling technique	231

CHAPTER 10	DISCUSSION	232
10.1	Brief overview of purpose and findings of study	232
10.2.	Relationships which were consistent across NA and RD groups	234
10.2.1	Relationships between ability, the self-system, and metacognitive knowledge	235
10.2.2	The effects of self-system constructs and metacognitive knowledge on strategy use and performance	238
10.3	Relationships that distinguish NA and RD adolescents	241
10.3.1	Relationships between ability, self-system constructs, and performance	242
10.3.2	Relationship between strategy use and performance	243
10.3.3	Relationship between self-efficacy and performance	246
10.3.4	Summary	247
10.4	Distinction between metacognitive components and their relationship to cognitive processes	249
10.5	Implications of findings for Borkowski's model of metacognition	250
10.5.1	Implications for causal ordering of variables	251
10.5.2	Implications for relationships that distinguish between groups	254
10.6	Findings of secondary goals of present study	256
10.7	Educational implications	257
10.8	Limitations and strengths of present study	262
10.8.1	Limitations	262
10.8.2	Strengths	266
10.9	Future research	268
10.10	Summary and conclusions	270

REFERENCES	273
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APPENDICES

Appendix A	Information sheet/consent forms	308
Appendix B	Reading Questionnaires I and II, TARSUM measures, scoring procedures for TARSUM metacognitive strategies, and definitions of strategies used in TARSUM	311
Appendix C	Pereira-Laird, J. A. & Deane, F. P. (1995). <i>Validation of a reading self-efficacy scale for adolescents</i> . Manuscript submitted for publication	339

Appendix D	Pereira-Laird, J. A. (1995). <i>Development and validation of a self-report measure of the Reading Strategy Use (RSU) scale.</i> Manuscript submitted for publication	363
Appendix E	Pereira-Laird, J. A. & Deane, F. P. (1996). <i>Development of a behavioral measure of strategy use for adolescents: Think-Aloud Reading Strategy Use Measure (TARSUM).</i> Manuscript submitted for publication	389
Appendix F	Correlation matrices for the four hypothesized models	421
Appendix G	LISREL specification of hypothesized Models 1 through 4	424
Appendix H	Description of findings for nested sequence of models for hypothesized Models 1 through 4	439
Appendix I	Error variance-covariance matrices for structural Models 1 through 4	455
Appendix J	Supplementary analyses: The impact of ethnicity and gender on the four hypothesized models	459

LIST OF TABLES

Table 1	Summary of variables, matrices, and terms used in the analysis of covariance structures	105
Table 2	Demographic characteristics of reading disabled and normal achieving readers . . .	146
Table 3	Ability and achievement scores of reading disabled and normal achieving readers	147
Table 4	Constructs of interest and their corresponding indicators	149
Table 5	Means and standard deviations of variables in the NA and RD reader groups	174
Table 6	Results of discriminant analysis	177
Table 7	Classification results from discriminant function analysis: Group membership percentages predicted by the function	178
Table 8	Factor loadings and reliabilities of indicators for Measurement Model 1	193
Table 9	Common metric completely standardized solution of error variances and covariances for NA and RD readers for Measurement Model 1	194
Table 10	Common metric completely standardized variances and covariances of latent constructs for NA and RD readers for Measurement Model 1	195
Table 11	Correlations of latent constructs for NA and RD readers for Measurement Model 1	196
Table 12	Factor loadings and reliabilities of indicators for Measurement Model 2	204
Table 13	Common metric completely standardized solution of error variances and covariances for NA and RD readers for Measurement Model 2	205
Table 14	Common metric completely standardized variances and covariances of latent constructs for NA and RD readers for Measurement Model 2	206
Table 15	Correlations of latent constructs for NA and RD readers for Measurement Model 2	207
Table 16	Factor loadings and reliabilities of indicators for Measurement Model 3	213
Table 17	Common metric completely standardized solution of error variances and covariances for NA and RD readers for Measurement Model 3	214
Table 18	Common metric completely standardized variances and covariances of latent constructs for NA and RD readers for Measurement Model 3	215
Table 19	Correlations of latent constructs for NA and RD readers for Measurement Model 3	216

Table 20	Factor loadings and reliabilities of indicators for Measurement Model 4	222
Table 21	Common metric completely standardized solution of error variances and covariances for NA and RD readers for Measurement Model 4	223
Table 22	Common metric completely standardized variances and covariances of latent constructs for NA and RD readers for Measurement Model 4	224
Table 23	Correlations of latent constructs for NA and RD readers for Measurement Model 4	225

LIST OF FIGURES

Figure 1	Hypothesized relationships between cognitive, metacognitive, and motivational variables	5
Figure 2	Borkowski's model of metacognition (Borkowski et al., 1989, 1990, 1992; Borkowski & Turner, 1990; Groteluschen et al., 1990)	60
Figure 3	Carr et al.'s (1991) model of reading performance in achieving and underachieving readers	72
Figure 4	Hypothesized theoretical Model 1 for NA and RD readers	86
Figure 5	Hypothesized theoretical Model 2 for NA and RD readers	89
Figure 6	Hypothesized theoretical Model 3 for NA and RD readers	91
Figure 7	Hypothesized theoretical Model 4 for NA and RD readers	94
Figure 8	Schematic representation of the general LISREL model	106
Figure 9	Hypothesized relationships between cognitive, metacognitive, and motivational, variables in a single sample	121
Figure 10	Hypothesized Model 1 respecified to include correlated errors	131
Figure 11	Hypothesized Model 1 respecified for the multisample situation	133
Figure 12	Findings of revised Model 1 for NA and RD readers	198
Figure 13	Findings of revised Model 2 for NA and RD readers	209
Figure 14	Findings of revised Model 3 for NA and RD readers	218
Figure 15	Findings of revised Model 4 for NA and RD readers	227