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METACOGNITION, READING AND CAUSAL ATTRIBUTIONS:
A COMPARISON OF LEARNING DISABLED AND
NON LEARNING DISABLED INTERMEDIATE
SCHOOL CHILDREN

A dissertation presented in partial
fulfilment of the requirements for the degree
of Doctor of Philosophy in Education
at Massey University

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1986

ABSTRACT

Metacognitive knowledge, oral reading behaviour, comprehension monitoring, self perceptions of reading ability, and reading-related causal attributions in learning disabled (LD) and non learning disabled (NLD) children were investigated in this study. Sixty-nine Form Two pupils attending five intermediate schools in Palmerston North and Feilding were involved. The LD children were of average or above average intelligence, but underachieving in reading. The LD sample was operationally defined in terms of having a WISC-R IQ of 90 or above, with a PAT Reading Comprehension score equal to or less than the 16th percentile, or with a PAT Reading Comprehension score equal to or less than the 19th percentile and a PAT Reading Vocabulary score equal to or less than the 16th percentile. The LD sample (N=35) comprised 26 boys and 9 girls. The sample of NLD children was selected from pupils who had a WISC-R IQ score of 90 or above, with PAT Reading Comprehension and Reading Vocabulary scores greater than the 50th percentile and a Listening Comprehension score greater than the 30th percentile. As far as possible, the NLD group was matched to the LD group in terms of IQ. The NLD sample (N=34) comprised 19 boys and 15 girls.

Data on metacognitive knowledge of strategies was obtained by administering the Reading Strategies for Meaning Scale and the Reading Strategies for Decoding Scale. Oral reading and comprehension monitoring behaviours were collected on passages which reflected the children's individual "easy" and "difficult" level. Comprehension monitoring was investigated by focusing particular attention on self correction behaviour and by the use of the Monitoring Device (Bleep) which permitted the investigation of on-line monitoring at the word level. At the conclusion of the oral reading self report data on awareness of monitoring and corrective strategy use were collected. This was referred to as the Self Report of Oral Reading Behaviour. In addition, three different instruments were developed in order to examine children's perceptions of their reading achievement and causal beliefs for success and failure in reading. The measures were the Causal Attribution Rating Scales, Reading Perception and Attribution Questionnaire, and Task-linked Perceptions and Causal Attributions.

The study was conducted in two Phases. During Phase A the children's easy and difficult passage for oral reading was established and data on the children's reading-related perceptions and causal attributions were collected. Phase B consisted of administering the individual easy and difficult oral reading passages and the Monitoring Device (Bleep), collecting the Self Report of Oral Reading Behaviour data and administering the reading strategy scales.

The picture of LD readers that has emerged is one not dissimilar to that of NLD readers. LD readers were shown to have similar metacognitive knowledge of positive strategies for gaining meaning from a story and decoding an unknown word compared with NLD readers.

The evidence that LD readers have metacognitive knowledge was further supported by the results of the Self Report of Oral Reading Behaviour. In terms of describing monitoring and corrective strategy use, the reasons for such monitoring and for the selection of specific strategies and judgements about success and lack of success of fix-up activities, the LD readers revealed metacognitive competence. Therefore awareness of self-regulation was manifested by LD readers when specific self-generated reading events at two difficulty levels were examined.

The reading behaviour and comprehension monitoring of the LD readers were also often similar to that of the NLD readers. Where differences did occur they frequently reflected performance on the difficult passage level. However, the reading behaviour of LD children also tended to be very erratic and highly individual in nature. In terms of self correction, as an index of comprehension monitoring, the LD readers were as proficient as their peers, indicating awareness of comprehension failure and an ability to implement corrective strategies. However, when analyses were undertaken combining the variables of self correction and linguistic cue use and meaning cue use, no clear pattern of behaviour appeared. The LD readers were also aware of comprehension breakdown as indicated by use of the Monitoring Device. Errors were signaled as frequently by LD readers as by NLD readers. On the easy passage, LD readers

signaled self corrections as often as the NLD readers, but less often on the difficult passage. Again then, LD readers may be portrayed as competent metacomprehenders. However, when analyses involved signaled monitoring and linguistic cue use and meaning cue use inconsistent patterns emerged across difficulty levels and for correction type.

Attributions for reading success to external factors and for reading failure to internal factors, coupled with low perceptions of in-class reading achievement were made by LD readers. These reflect a lack of self confidence and may lead to decreased persistence in effort, expectations of future failure and avoidance of tasks where difficulty has been previously experienced.

Attributions for other children's reading success and failure and personal reading success and failure collected in an open-ended manner revealed no significant group differences. Similarly, attributions for comprehension and oral reading revealed no group differences. Task difficulty also did not differentiate the attributions made for the Task-linked Perceptions and Causal Attributions by the two groups. Both groups perceived their understanding and oral reading on the easy passage as good or average, and as poor at the difficult level. Poor perceptions at the difficult level led to ascriptions of lack of ability by both groups.

Several educational implications arising from this study were discussed. These relate to both assessment and instruction of LD children. In addition, a number of suggestions for future research were made. Most of these suggestions related to refinement in methodology, however, additional reading-related variables were also considered for future examination.

Finally, while many similarities exist between LD and NLD readers in terms of metacognition, reading and causal attributions, this study has also revealed LD children need assistance with particular aspects of their reading and help in building a more positive self image. Meaningful learning opportunities where these concerns can become the focus of attention can only be achieved through suitable remedial intervention.

ACKNOWLEDGEMENTS

I am particularly indebted to my Chief Supervisor, Dr. James Chapman, for his willingness to listen, his sympathetic understanding, advice, and continuing encouragement from the initial conceptualization of this study. I am also very grateful to my second Supervisor, Dr. Alison St. George for her guidance and support. The individual and combined contributions of both supervisors throughout this study have been greatly appreciated.

I would like to thank Professor Ray Adams and Professor Ivan Snook for their assistance while employed in the Education Department, Massey University from 1982 to 1984.

I wish to acknowledge Kay Hassard, Margaret McFarland, Lois Wilkinson, Judith Loveridge, Valerie Redshaw, Teresa Doyle, and Deborah Laurs who helped with transcribing, checking, and determining the reliability of the data. In addition, the substantial assistance from Walt Abell, Ted Drawneek, and Bob Lambourne during the computer analyses was much appreciated.

To the headmasters who allowed me access to their schools and to the pupils who participated in the study, I am grateful.

More recently, thanks are also due to my colleagues in the Education Department, University of Waikato for their interest and to Val Lazenby for typing this manuscript.

The final thanks goes to my family. To my sister, Annette van Kraayenoord for her unswerving loyalty, and to my parents, Chris and Lous van Kraayenoord, to whom this dissertation is dedicated, for their generous love, support, and encouragement in everything I have undertaken.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	xiii
LIST OF APPENDICES	xiv
CHAPTER	
1 INTRODUCTION	1
11 REVIEW OF THE LITERATURE	12
Learning Disabilities	12
Learning Disabilities and Reading	29
Metacognition	45
Metacognition and Reading	57
Causal Attributions	89
Summary and Statement of Hypotheses	108
111 METHOD	125
Overview	125
Sample	127
Instruments	131
Pilot Study	141
Procedure	142
Data Coding	151
Data Analysis	157
1V RESULTS	162
Reading Strategies	162
Reading Strategies for Meaning Scale	162

Reading Strategies for Decoding Scale	166
Comprehension Monitoring	171
Oral Reading and Monitoring Behaviour	171
Summary	175
Types of Miscue	178
Summary	180
Errors, self corrections and linguistic cue use	184
Graphic proximity	189
Phonemic similarity	195
Syntactic acceptability	200
Semantic acceptability	204
Summary	208
Errors, self corrections and meaning change	210
Summary	213
Signaled Monitoring	220
Types of signaled monitoring	220
Summary	221
Signaled Monitoring and linguistic cue use	224
Graphic proximity	229
Phonemic similarity	230
Syntactic acceptability	234
Semantic acceptability	234
Summary	234
Signaled monitoring and meaning change	236
Summary	247
Metacognitive Knowledge	250
Self Report of Oral Reading Behaviour	250
Summary	273
Perceptions and Causal Attributions	278
Causal Attribution Rating Scales	278
Causal Attribution Rating Scale for Success	278
Causal Attribution Rating Scale for Failure	282
Summary of Findings of Causal Attribution	
Rating Scales	286
Reading Perception and Attribution Questionnaire.	286
Task-linked Perceptions and Causal Attributions .	295

	Summary	306
	Summary of Results of all Perception and Causal Attribution Measures	308
V	DISCUSSION	311
	Metacognitive Knowledge	311
	Reading Strategies	311
	Comprehension Monitoring	313
	Oral Reading and Monitoring Behaviour	313
	Types of miscue	315
	Errors, self corrections and linguistic cue use .	318
	Errors, self corrections and meaning change	323
	Signaled Monitoring	325
	Types of signaled monitoring	325
	Signaled monitoring and linguistic cue use	326
	Signaled monitoring and meaning change	329
	Metacognitive Knowledge	333
	Self Report of Oral Reading Behaviour	333
	Perceptions and Causal Attributions	341
V1	CONCLUSION	348
	Learning Disabled Readers	348
	Educational Implications	355
	Directions for Future Research	360
	BIBLIOGRAPHY	362
	APPENDICES	411

LIST OF TABLES

Table

1	PAT Percentile Rank Data	131
2	Oral Reading Passages and Number of Words per Passage	135
3	Means and Standard Deviations for the Reading Strategies for Meaning Scale	163
4	Summary of ANOVA Data for Reading Strategies for Meaning Scale	164
5	Means and Standard Deviations for the Reading Strategies for Decoding Scale	167
6	Summary of ANOVA Data for Reading Strategies for Decoding Scale	168
7	Number of Children Reading at each Oral Reading Passage: Easy and Difficult	173
8	Number of Children Achieving Criterial Accuracy and Comprehension Scores	174
9	Summary Data for Accuracy and Comprehension Scores	176
10	Summary of ANOVA Data for Accuracy and Comprehension Scores	177
11	Percentages of Types of Miscues per 100 Words	181
12	Summary of ANOVA Data for Types of Miscue per 100 Words ...	182
13	Percentages of Errors and Self Corrections in terms of Linguistic Cue Use	186
14	Summary of ANOVA Data for Errors and Self Corrections	187
15	Summary Data for Percentages of Miscues in terms of Graphic Proximity	191
16	Summary of ANOVA Data for Miscues in terms of Graphic Proximity	192
17	Summary Data for Percentages of Miscues in terms of Phonemic Similarity	197
18	Summary of ANOVA Data for Miscues in terms of Phonemic Similarity	198
19	Summary Data for Percentages of Miscues in terms of Syntactic Acceptability	201
20	Summary of ANOVA Data for Miscues in terms of Syntactic Acceptability	202

21	Summary Data for Percentages of Miscues in terms of Semantic Acceptability	205
22	Summary of ANOVA Data for Miscues in terms of Semantic Acceptability	206
23	Summary Data for Percentages of Meaning Cue Use Types	214
24	Summary Data of ANOVA Data for Meaning Cue Use Types	216
25	Summary Data for Percentages of Types of Signaled Monitoring per 100 Words	222
26	Summary of ANOVA Data for Types of Signaled Monitoring per 100 Words	223
27	Summary Data for Percentages of Signaled Monitoring of Errors and Self Corrections in terms of Linguistic Cue Use	227
28	Summary of ANOVA Data for Signaled Monitoring of Errors and Self Corrections	228
29	Summary Data for Percentages for Signaled Monitoring of Miscues in terms of Graphic Proximity and Phonemic Similarity	231
30	Summary of ANOVA Data for Signaled Monitoring of Miscues in terms of Graphic Proximity and Phonemic Similarity	232
31	Summary Data for Percentages of Signaled Monitoring and Types of Meaning Cue Use to Signaled Monitoring	239
32	Summary of ANOVA Data for Signaled Monitoring and Types of Meaning Cue Use	240
33	Summary Data for Percentages of Signaled Monitoring of Types of Meaning Cue Use to Types of Meaning Cue Use	244
34	Summary of ANOVA Data for Signaled Monitoring of Types of Meaning Cue Use	245
35	Descriptions of Comprehension Monitoring and Correspondence with Oral Reading Behaviour	254
36	Percentages of Specific Descriptions and Correspondence with Oral Reading Behaviour	255
37	Summary of ANOVA Data for Specific Descriptions and Correspondence with Oral Reading Behaviour	256
38	Reasons for Conscious and Subconscious Monitoring	258
39	Strategies Used When Making a Correction Attempt	261
40	Summary of ANOVA Data for Rereading Strategy Type	262
41	Second Strategies Used When Making a Correction Attempt ...	263

42	Reasons Why Reported Strategies Were Used	265
43	Reasons Why Reported Second Strategies Were Used	266
44	Knowledge of Success and Knowledge of Lack of Success and Correspondence with Oral Reading Behaviour	269
45	Percentages of Knowledge of Success and Correspondence of Knowledge of Success and Knowledge of Lack of Success with Oral Reading Behaviour	270
46	Summary of ANOVA Data for Knowledge of Successful and Unsuccessful Strategy Use and Correspondence with Oral Reading Behaviour	271
47	Ways of Knowing	274
48	Ways of Knowing for the Second Strategy	275
49	Source of Knowledge of Strategies	276
50	Means and Standard Deviations for Causal Attribution Rating Scale for Success	279
51	Summary of ANOVA Data for Causal Attribution Rating Scale for Success	280
52	Means and Standard Deviations for Causal Attribution Rating Scale for Failure	283
53	Summary of ANOVA Data for Causal Attribution Rating Scale for Failure	284
54	Summary of ANOVA Data for Perception of In-Class Reading Achievement Level	288
55	Number of Open-Ended Attribution Responses for Success and Failure of Others in Reading	290
56	Total Number of Responses per Causal Attribution Category for Success and Failure of Others in Reading	291
57	Number of Open-Ended Attribution Responses for Success and Failure in Reading	293
58	Total Number of Responses per Causal Attribution Category for Success and Failure in Reading	294
59	Self Perceptions of Understanding and Oral Reading Performance for the Easy and Difficult Oral Reading Passages	297
60	Number of Causal Attribution Responses for Understanding and Oral Reading Performance for the Easy and Difficult Oral Reading Passages	300

61	Total Number of Responses per Causal Attribution Category for Understanding for the Easy and Difficult Oral Reading Passages	301
62	Total Number of Responses per Causal Attribution Category for Oral Reading Performance for the Easy and Difficult Oral Reading Passages	302
63	Number of Responses per Causal Attribution Category as a Function of Perception: Understanding of the Easy and Difficult Oral Reading Passages	304
64	Number of Responses per Causal Attribution Category as a Function of Perception: Oral Reading Performance of the Easy and Difficult Oral Reading Passages	305
65	Type of Statement following Perception of Understanding and Oral Reading Performance of the Easy and Difficult Oral Reading Passages	307

LIST OF FIGURES

Figure

1	Ratings of Reading Strategies for Meaning Scale	165
2	Ratings of Reading Strategies for Decoding Scale	169

LIST OF APPENDICES

Appendix

A	Questions for Self Report of Oral Reading Behavior	411
B	Reading Strategies for Meaning Scale	412
C	Reading Strategies for Decoding Scale	414
D	Causal Attribution Rating Scale for Success	416
E	Categories Associated Dimensions for Causal Attribution Rating Scales	418
F	Reading Perception and Attribution Questionnaire	419
G	Categorization of Oral Reading Behaviours	420
H	General Record and Miscue Analysis Summary	431
I	Categorization of Self Report of Oral Reading Behaviour ...	432
J	Categories, Dimensions and Keywords for Reading Perception and Attribution Questionnaire	436
K	Categories and Dimensions for Task-linked Perceptions and Causal Attributions	438