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Retrospective miscue analysis as an instructional strategy with adult readers

Marek, Ann Triplett, Ph.D.
The University of Arizona, 1987
RETROSPECTIVE MISCUE ANALYSIS AS AN
INSTRUCTIONAL STRATEGY WITH ADULT READERS

by
Ann Triplett Marek

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A Dissertation Submitted to the Faculty of the
DIVISION OF TEACHING AND TEACHER EDUCATION
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For the Degree of
DOCTOR OF PHILOSOPHY
With a Major in Elementary Education
In the Graduate College
THE UNIVERSITY OF ARIZONA

1987
As members of the Final Examination Committee, we certify that we have read
the dissertation prepared by Ann Triplett Marek

entitled RETROSPECTIVE MISCUZE ANALYSIS AS AN INSTRUCTIONAL STRATEGY
WITH ADULT READERS

and recommend that it be accepted as fulfilling the dissertation requirement
for the Degree of Doctor of Philosophy.

Kenneth S. Goodman
Yetta M. Goodman
Carol Larson
Patricia Anders
John M. Bradley

Final approval and acceptance of this dissertation is contingent upon the
candidate's submission of the final copy of the dissertation to the Graduate
College.

I hereby certify that I have read this dissertation prepared under my
direction and recommend that it be accepted as fulfilling the dissertation
requirement.

Dissertation Director Kenneth S. Goodman

11/16/87
STATEMENT BY AUTHOR

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SIGNED: Ann Tippett March
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Kenneth and Yetta Goodman are fond of saying that the most rewarding aspect of their work has been their associations with graduate students. From my vantage point, it seems I have received far more than I gave to each of my committee members, and I wish to thank each of them for their interest in this project. To John Bradley and Patricia Anders I owe thanks not only for this research but also for their support during the years when I earned my master’s degree. Their early encouragement was important in my decision to pursue a doctorate. To Carol Larson I am indebted for her contributions to this research and for the design of my doctoral program as a whole. And finally, I offer my thanks to Kenneth Goodman and Yetta Goodman who nurtured my curiosity and challenged my intellect long before I met either one of them. Their steadfast support of me as a learner has made this work possible.

In my mind this work has been dedicated to the memory of my father who, though he did not live to see its conclusion, was supportive of its beginning. I am privileged to have been born into a family of "readers."

But my greatest debt is owed to my husband Tony, who has always believed I can do anything and has helped me find the courage to try.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF ILLUSTRATIONS</th>
<th>viii</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>xi</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>xii</td>
</tr>
</tbody>
</table>

CHAPTER 1

INTRODUCTION ........................................ 1
Theoretical Rationale ............................ 3
Statement of the Problem .......................... 5
Research Questions ............................... 6
Significance of the Study ....................... 7
Assumptions ....................................... 7
Limitations ....................................... 8
Definitions of Terms ............................. 8

CHAPTER 2

REVIEW OF THE LITERATURE ........................ 10
The Reading Process .............................. 10
A Psycholinguistic Model of the Reading Process 10
Readers' Models of the Reading Process .......... 13
Adult Readers .................................... 15
Metalinguistic Awareness ........................ 23
Oral Language About Written Language .......... 24
Metalinguistic Awareness About Written Language 29
Implications for Retrospective Miscue Analysis .. 34
Retrospective Miscue Analysis .................... 36
A Research Tool for Understanding the Reading Process 38
An Instructional Tool for Improving Reading Strategies 46
CHAPTER 3

RESEARCH DESIGN .................................................. 55
Overview ................................................................. 55
Subjects ................................................................. 56
Methodology .......................................................... 57
Instruments ............................................................. 59
Data Analysis ........................................................ 63
Presentation of Findings ............................................. 64

CHAPTER 4

THE EVOLUTION OF THE RMA STRATEGY ....................... 66
A Preliminary Case Study: Carmen ............................. 70
  Background ........................................................ 70
  The Burke Interview ............................................. 71
  Reading Miscue Inventory ..................................... 72
Evaluating RMA Procedures .................................... 83
  The Timing of Sessions ........................................ 85
  The Selection of Miscues ..................................... 86
  The RMA Questions ............................................. 88
  The RMA in Practice ........................................... 89
Recording RMA Data .............................................. 93
An RMA Lesson Plan .............................................. 95

CHAPTER 5

THE DEVELOPMENT AND REEVALUATION OF GLORIA ...... 99
Introduction .......................................................... 99
Research Question No. 1 .......................................... 104
  Gloria’s Strategies ............................................. 104
  Reading Strategies of Good Readers ....................... 106
  Gloria’s Instructional Model ................................. 109
Discussion .......................................................... 110
Research Question No. 2 .......................................... 112
  Graphic and Sound Similarity ............................... 112
  Syntactic Acceptability ..................................... 112
  Semantic Acceptability ...................................... 114
  Meaning Change ................................................ 115
  Correction ........................................................ 116
  Meaning Construction ........................................ 117
  Grammatical Relationships .................................. 118
Discussion .......................................................... 120
Research Question No. 3 .......................................... 122
Changes in Perceptions About the Reading Process ....... 122
  The Retrospective Miscue Analysis Sessions .............. 122
  The Closing Interview ...................................... 150
Changes in Strategies Utilized in the Reading Process ........................................ 157
The Procedure ........................................................................................................ 158
The Texts ............................................................................................................... 158
The Analyses ......................................................................................................... 161

CHAPTER 6

THE DEVELOPMENT AND REEVALUATION OF MARIANNE ........................................ 173
Introduction ........................................................................................................... 173
Research Question No. 1 ......................................................................................... 177
Marianne's Strategies ............................................................................................. 177
Reading Strategies of Good Readers .................................................................... 178
Marianne's Instructional Model ............................................................................ 179
Research Question No. 2 ......................................................................................... 181
Graphic and Sound Similarity .............................................................................. 181
Syntactic Acceptability .......................................................................................... 182
Semantic Acceptability ......................................................................................... 183
Meaning Change ..................................................................................................... 184
Correction ............................................................................................................... 185
Meaning Construction ............................................................................................. 186
Grammatical Relationships .................................................................................... 187
Discussion ............................................................................................................... 188
Research Question No. 3 ......................................................................................... 190
Changes in Perceptions About the Reading Process ........................................... 190
The Retrospective Miscue Analysis Sessions ...................................................... 190
The Closing Interview ............................................................................................ 210
Changes in Strategies Utilized in the Reading Process ....................................... 215
The Procedure ........................................................................................................ 215
The Texts ................................................................................................................. 216
The Analyses ......................................................................................................... 218

CHAPTER 7

REVALUING READERS AND READING .................................................................. 229
Summary of the Study ............................................................................................ 229
Discussion of Results .............................................................................................. 231
The Development of the Retrospective Miscue Analysis Strategy ....................... 231
The Development of the Readers .......................................................................... 245
Implications and Recommendations .................................................................... 248
The Evolution of Teacher-Researcher .................................................................... 251

APPENDIX A: BACKGROUND INFORMATION ....................................................... 258

APPENDIX B: BURKE INTERVIEW MODIFIED FOR OLDER READERS ............... 259
<table>
<thead>
<tr>
<th>APPENDIX C:</th>
<th>THE CLOSING INTERVIEW</th>
<th>260</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPENDIX D:</td>
<td>READING MISCUE INVENTORY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PROCEDURE I QUESTIONS</td>
<td>261</td>
</tr>
<tr>
<td>APPENDIX E:</td>
<td>READING MISCUE INVENTORY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PROCEDURE I CODING FORM</td>
<td>262</td>
</tr>
<tr>
<td>APPENDIX F:</td>
<td>RMA SESSION ORGANIZER</td>
<td></td>
</tr>
<tr>
<td>APPENDIX G:</td>
<td>RMA RESPONSE FORM</td>
<td></td>
</tr>
<tr>
<td>APPENDIX H:</td>
<td>RETROSPECTIVE MISCUE ANALYSIS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRANSCRIPT</td>
<td>265</td>
</tr>
<tr>
<td>APPENDIX I:</td>
<td>TYPESCRIPT FOR &quot;THE BOY AND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>THE NORTH WIND&quot;</td>
<td>275</td>
</tr>
<tr>
<td>LIST OF REFERENCES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Figure</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>4.1 Miscue Marking System</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>4.2 Carmen's Miscue No. 1</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>4.3 Carmen's Miscue No. 2</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>4.4 Carmen's Miscue No. 3</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>4.5 Carmen's Miscue No. 4</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>4.6 Carmen's Miscue No. 5</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>4.7 RMA Session Organizer</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>4.8 RMA Response Form</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>5.1 Gloria's Miscue No. 1</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>5.2 Gloria's Miscue No. 2</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>5.3 Gloria's Miscue No. 3</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>5.4 Gloria's Miscue No. 4</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>5.5 Gloria's Miscue No. 5</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>5.6 Gloria's Miscue No. 6</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>5.7 Gloria's Miscue No. 7</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>5.8 Gloria's Miscue No. 8</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>5.9 Gloria's Miscue No. 9</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>5.10 Gloria's Miscue No. 10</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>5.11 Gloria's Miscue No. 11</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>5.12 Gloria's Miscue No. 12</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>5.13 Gloria's Miscue No. 13</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>5.14 Gloria's Miscue No. 14</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>5.15 Gloria's Miscue No. 15</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>5.16 Gloria's Miscue No. 16</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>5.17 Gloria's Miscue No. 17</td>
<td>124</td>
<td></td>
</tr>
<tr>
<td>5.18 Gloria's Miscue No. 18</td>
<td>124</td>
<td></td>
</tr>
<tr>
<td>5.19 Gloria's Miscue No. 19</td>
<td>124</td>
<td></td>
</tr>
<tr>
<td>5.20 Gloria's Miscue No. 20</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>5.21 Gloria's Miscue No. 21</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>5.22 Gloria's Miscue No. 22</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>5.23 Gloria's Miscue No. 23</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>5.24 Gloria's Miscue No. 24</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>5.25 Gloria's Miscue No. 25</td>
<td>128</td>
<td></td>
</tr>
<tr>
<td>5.26 Gloria's Miscue No. 26</td>
<td>128</td>
<td></td>
</tr>
<tr>
<td>5.27 Gloria's Miscue No. 27</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>5.28 Gloria's Miscue No. 28</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>5.29 Gloria's Miscue No. 29</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>5.30 Gloria's Miscue No. 30</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>5.31 Gloria's Miscue No. 31</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>5.32 Gloria's Miscue No. 32</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>Chapter</td>
<td>Glorianos Miscue No.</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------</td>
<td>------</td>
</tr>
<tr>
<td>5.33</td>
<td>Gloria's Miscue No. 33</td>
<td>132</td>
</tr>
<tr>
<td>5.34</td>
<td>Gloria's Miscue No. 34</td>
<td>132</td>
</tr>
<tr>
<td>5.35</td>
<td>Gloria's Miscue No. 35</td>
<td>133</td>
</tr>
<tr>
<td>5.36</td>
<td>Gloria's Miscue No. 36</td>
<td>133</td>
</tr>
<tr>
<td>5.37</td>
<td>Gloria's Miscue No. 37</td>
<td>134</td>
</tr>
<tr>
<td>5.38</td>
<td>Gloria's Miscue No. 38</td>
<td>134</td>
</tr>
<tr>
<td>5.39</td>
<td>Gloria's Miscue No. 39</td>
<td>134</td>
</tr>
<tr>
<td>5.40</td>
<td>Gloria's Miscue No. 40</td>
<td>135</td>
</tr>
<tr>
<td>5.41</td>
<td>Gloria's Miscue No. 41</td>
<td>135</td>
</tr>
<tr>
<td>5.42</td>
<td>Gloria's Miscue No. 42</td>
<td>136</td>
</tr>
<tr>
<td>5.43</td>
<td>Gloria's Miscue No. 43</td>
<td>136</td>
</tr>
<tr>
<td>5.44</td>
<td>Gloria's Miscue No. 44</td>
<td>137</td>
</tr>
<tr>
<td>5.45</td>
<td>Gloria's Miscue No. 45</td>
<td>137</td>
</tr>
<tr>
<td>5.46</td>
<td>Gloria's Miscue No. 46</td>
<td>138</td>
</tr>
<tr>
<td>5.47</td>
<td>Gloria's Miscue No. 47</td>
<td>139</td>
</tr>
<tr>
<td>5.48</td>
<td>Gloria's Miscue No. 48</td>
<td>140</td>
</tr>
<tr>
<td>5.49</td>
<td>Gloria's Miscue No. 49</td>
<td>140</td>
</tr>
<tr>
<td>5.50</td>
<td>Gloria's Miscue No. 50</td>
<td>140</td>
</tr>
<tr>
<td>5.51</td>
<td>Gloria's Miscue No. 51</td>
<td>141</td>
</tr>
<tr>
<td>5.52</td>
<td>Gloria's Miscue No. 52</td>
<td>141</td>
</tr>
<tr>
<td>5.53</td>
<td>Gloria's Miscue No. 53</td>
<td>141</td>
</tr>
<tr>
<td>5.54</td>
<td>Gloria's Miscue No. 54</td>
<td>142</td>
</tr>
<tr>
<td>5.55</td>
<td>Gloria's Miscue No. 55</td>
<td>142</td>
</tr>
<tr>
<td>5.56</td>
<td>Gloria's Miscue No. 56</td>
<td>142</td>
</tr>
<tr>
<td>5.57</td>
<td>Gloria's Miscue No. 57</td>
<td>143</td>
</tr>
<tr>
<td>5.58</td>
<td>Gloria's Miscue No. 58</td>
<td>143</td>
</tr>
<tr>
<td>5.59</td>
<td>Gloria's Miscue No. 59</td>
<td>143</td>
</tr>
<tr>
<td>5.60</td>
<td>Gloria's Miscue No. 60</td>
<td>144</td>
</tr>
<tr>
<td>5.61</td>
<td>Gloria's Miscue No. 61</td>
<td>144</td>
</tr>
<tr>
<td>5.62</td>
<td>Gloria's Miscue No. 62</td>
<td>145</td>
</tr>
<tr>
<td>5.63</td>
<td>Gloria's Miscue No. 63</td>
<td>145</td>
</tr>
<tr>
<td>5.64</td>
<td>Gloria's Miscue No. 64</td>
<td>146</td>
</tr>
<tr>
<td>5.65</td>
<td>Gloria's Miscue No. 65</td>
<td>146</td>
</tr>
<tr>
<td>5.66</td>
<td>Gloria's Miscue No. 66</td>
<td>147</td>
</tr>
<tr>
<td>5.67</td>
<td>Gloria's Miscue No. 67</td>
<td>147</td>
</tr>
<tr>
<td>5.68</td>
<td>Gloria's Miscue No. 68</td>
<td>148</td>
</tr>
<tr>
<td>5.69</td>
<td>Gloria's Miscue No. 69</td>
<td>148</td>
</tr>
<tr>
<td>5.70</td>
<td>Gloria's Miscue No. 70</td>
<td>149</td>
</tr>
<tr>
<td>5.71</td>
<td>Gloria's Miscue No. 71</td>
<td>149</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Marianne's Miscue No.</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Marianne's Miscue No. 1</td>
<td>182</td>
</tr>
<tr>
<td>6.2</td>
<td>Marianne's Miscue No. 2</td>
<td>182</td>
</tr>
<tr>
<td>6.3</td>
<td>Marianne's Miscue No. 3</td>
<td>183</td>
</tr>
<tr>
<td>6.4</td>
<td>Marianne's Miscue No. 4</td>
<td>183</td>
</tr>
<tr>
<td>6.5</td>
<td>Marianne's Miscue No. 5</td>
<td>184</td>
</tr>
<tr>
<td>6.6</td>
<td>Marianne's Miscue No. 6</td>
<td>184</td>
</tr>
<tr>
<td>6.7</td>
<td>Marianne's Miscue No. 7</td>
<td>185</td>
</tr>
<tr>
<td>6.8</td>
<td>Marianne's Miscue No. 8</td>
<td>185</td>
</tr>
<tr>
<td>6.9</td>
<td>Marianne's Miscue No. 9</td>
<td>186</td>
</tr>
<tr>
<td>6.10</td>
<td>Marianne's Miscue No. 10</td>
<td>186</td>
</tr>
<tr>
<td>Section</td>
<td>Entry</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>6.11</td>
<td>Marianne’s Miscue No. 11</td>
<td>187</td>
</tr>
<tr>
<td>6.12</td>
<td>Marianne’s Miscue No. 12</td>
<td>187</td>
</tr>
<tr>
<td>6.13</td>
<td>Marianne’s Miscue No. 13</td>
<td>188</td>
</tr>
<tr>
<td>6.14</td>
<td>Marianne’s Miscue No. 14</td>
<td>188</td>
</tr>
<tr>
<td>6.15</td>
<td>Marianne’s Miscue No. 15</td>
<td>192</td>
</tr>
<tr>
<td>6.16</td>
<td>Marianne’s Miscue No. 16</td>
<td>192</td>
</tr>
<tr>
<td>6.17</td>
<td>Marianne’s Miscue No. 17</td>
<td>193</td>
</tr>
<tr>
<td>6.18</td>
<td>Marianne’s Miscue No. 18</td>
<td>194</td>
</tr>
<tr>
<td>6.19</td>
<td>Marianne’s Miscue No. 19</td>
<td>194</td>
</tr>
<tr>
<td>6.20</td>
<td>Marianne’s Miscue No. 20</td>
<td>195</td>
</tr>
<tr>
<td>6.21</td>
<td>Marianne’s Miscue No. 21</td>
<td>195</td>
</tr>
<tr>
<td>6.22</td>
<td>Marianne’s Miscue No. 22</td>
<td>196</td>
</tr>
<tr>
<td>6.23</td>
<td>Marianne’s Miscue No. 23</td>
<td>197</td>
</tr>
<tr>
<td>6.24</td>
<td>Marianne’s Miscue No. 24</td>
<td>197</td>
</tr>
<tr>
<td>6.25</td>
<td>Marianne’s Miscue No. 25</td>
<td>197</td>
</tr>
<tr>
<td>6.26</td>
<td>Marianne’s Miscue No. 26</td>
<td>198</td>
</tr>
<tr>
<td>6.27</td>
<td>Marianne’s Miscue No. 27</td>
<td>198</td>
</tr>
<tr>
<td>6.28</td>
<td>Marianne’s Miscue No. 28</td>
<td>199</td>
</tr>
<tr>
<td>6.29</td>
<td>Marianne’s Miscue No. 29</td>
<td>199</td>
</tr>
<tr>
<td>6.30</td>
<td>Marianne’s Miscue No. 30</td>
<td>199</td>
</tr>
<tr>
<td>6.31</td>
<td>Marianne’s Miscue No. 31</td>
<td>200</td>
</tr>
<tr>
<td>6.32</td>
<td>Marianne’s Miscue No. 32</td>
<td>200</td>
</tr>
<tr>
<td>6.33</td>
<td>Marianne’s Miscue No. 33</td>
<td>201</td>
</tr>
<tr>
<td>6.34</td>
<td>Marianne’s Miscue No. 34</td>
<td>202</td>
</tr>
<tr>
<td>6.35</td>
<td>Marianne’s Miscue No. 35</td>
<td>202</td>
</tr>
<tr>
<td>6.36</td>
<td>Marianne’s Miscue No. 36</td>
<td>203</td>
</tr>
<tr>
<td>6.37</td>
<td>Marianne’s Miscue No. 37</td>
<td>203</td>
</tr>
<tr>
<td>6.38</td>
<td>Marianne’s Miscue No. 38</td>
<td>203</td>
</tr>
<tr>
<td>6.39</td>
<td>Marianne’s Miscue No. 39</td>
<td>205</td>
</tr>
<tr>
<td>6.40</td>
<td>Marianne’s Miscue No. 40</td>
<td>205</td>
</tr>
<tr>
<td>6.41</td>
<td>Marianne’s Miscue No. 41</td>
<td>206</td>
</tr>
<tr>
<td>6.42</td>
<td>Marianne’s Miscue No. 42</td>
<td>206</td>
</tr>
<tr>
<td>6.43</td>
<td>Marianne’s Miscue No. 43</td>
<td>207</td>
</tr>
<tr>
<td>6.44</td>
<td>Marianne’s Miscue No. 44</td>
<td>207</td>
</tr>
<tr>
<td>6.45</td>
<td>Marianne’s Miscue No. 45</td>
<td>208</td>
</tr>
<tr>
<td>6.46</td>
<td>Marianne’s Miscue No. 46</td>
<td>208</td>
</tr>
<tr>
<td>6.47</td>
<td>Marianne’s Miscue No. 47</td>
<td>209</td>
</tr>
<tr>
<td>6.48</td>
<td>Marianne’s Miscue No. 48</td>
<td>209</td>
</tr>
<tr>
<td>7.1</td>
<td>Miscue Example No. 1</td>
<td>234</td>
</tr>
<tr>
<td>7.2</td>
<td>Miscue Example No. 2</td>
<td>235</td>
</tr>
<tr>
<td>7.3</td>
<td>Miscue Example No. 3</td>
<td>236</td>
</tr>
<tr>
<td>7.4</td>
<td>Miscue Example No. 4</td>
<td>236</td>
</tr>
<tr>
<td>7.5</td>
<td>Miscue Example No. 5</td>
<td>238</td>
</tr>
<tr>
<td>7.6</td>
<td>Miscue Example No. 6</td>
<td>239</td>
</tr>
<tr>
<td>7.7</td>
<td>Miscue Example No. 7</td>
<td>240</td>
</tr>
<tr>
<td>7.8</td>
<td>Revaluing Cycle</td>
<td>248</td>
</tr>
<tr>
<td>7.9</td>
<td>Miscue Example No. 8</td>
<td>255</td>
</tr>
<tr>
<td>7.10</td>
<td>Miscue Example No. 9</td>
<td>255</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Gloria's Grammatical Relationships</td>
<td>162</td>
</tr>
<tr>
<td>5.2</td>
<td>Gloria's Meaning Construction</td>
<td>163</td>
</tr>
<tr>
<td>5.3</td>
<td>Gloria's Graphic and Sound Similarity</td>
<td>164</td>
</tr>
<tr>
<td>6.1</td>
<td>Marianne's Grammatical Relationships</td>
<td>219</td>
</tr>
<tr>
<td>6.2</td>
<td>Marianne's Meaning Construction</td>
<td>220</td>
</tr>
<tr>
<td>6.3</td>
<td>Marianne's Graphic and Sound Similarity</td>
<td>221</td>
</tr>
</tbody>
</table>
ABSTRACT

Retrospective miscue analysis is an instructional strategy designed to engage readers in analyzing and evaluating the quality of their own oral reading miscues.

This study was concerned with exploring how retrospective miscue analysis used as an instructional strategy with adults influenced both the reading process and the perceptions adult readers hold about that process. A pilot study with one adult reader was conducted to evaluate and modify retrospective miscue analysis techniques used in previous research. The revised retrospective miscue analysis procedures were then studied in-depth with two adult women. The subjects participated in weekly retrospective miscue analysis sessions for approximately four months each. During those sessions, the readers analyzed their own miscues from the previous week's reading, and then tape-recorded a selection for analysis during the next retrospective miscue analysis session.

The subjects read materials from third-grade through college readability levels. When texts were grouped according to relative difficulty and analyzed using Procedure I of the Reading Miscue Inventory, each
subject demonstrated improvement in utilizing reading strategies, as suggested by a reduction in miscues per hundred words and a strengthening of control over syntactic and semantic relationships in text.

Analysis of the tape-recorded retrospective miscue analysis sessions revealed over time that each subject shifted from a text reproduction model of the reading process to a model which placed importance on the construction of meaning. Those findings were corroborated by comparing each reader's responses to interview questions asked at the outset and conclusion of the study.

Research findings indicated that retrospective miscue analysis used as an instructional strategy with adult readers was instrumental in moving readers toward more effective use of reading strategies and more positive and realistic perceptions about themselves as readers.
CHAPTER 1

INTRODUCTION

The key to helping readers in trouble is to help them revalue themselves as language users and learners, and revalue the reading process as an interactive, constructive language process. They must set aside the pathological view of themselves, cast off the labels, and operate to construct meaning through written language using the strengths they have built and used in making sense of oral language or sign. To do that, they need support and help.

(K. Goodman 1982, pp. 87-88)

Twentieth-century society has focused a great deal of attention on readers in trouble. Politicians lament that low levels of literacy contribute to poverty, crime, and unemployment. Bureaucrats and business leaders correlate inadequate reading ability with low productivity in the workplace and assert that the former causes the latter. The responsibility for much that is problematic in our society has been placed at the doorstep of public school teachers, and educators have shared that burden with those children and young adults they refer to as "remedial," "disabled," or "deficient." Unfortunately, readers in trouble too often readily accept total responsibility for their so-called failure to learn, and in so doing, "they have
become their own worst enemies" (K. Goodman 1982, p. 87).

The number of persons in the United States who do not read as well as they or someone else would like them to has been difficult to estimate, but there is no doubt that many adults perceive themselves to be readers in trouble. They believe there are three kinds of readers in the world--good readers, bad readers, and nonreaders. To the good readers they may ascribe unrealistic qualities: good readers know all the words they encounter; they never make mistakes; and they remember everything they read. Measured against this mythical good reader, many adults find themselves lacking. Because readers in trouble are consciously aware of their inadequacies, many may become immobilized in their attempts to grow as readers.

Some adults seek help and support through the remedial instruction offered by the institutions in their communities. Often that instruction is provided through a combination of courses and individual tutoring designed to expand word recognition, vocabulary, comprehension, and study skills. But few programs of instruction share with readers what educators have learned about the process of reading. This research proposed to raise the reading process to a conscious level through the use of an innovative technique,
retrospective miscue analysis, in an attempt to free readers from the immobilizing effects of their misconceptions about reading.

**Theoretical Rationale**

K. Goodman has described reading as a process of constructing meaning from print, using cues from the graphophonetic, syntactic, semantic, and pragmatic systems of language. In their concentration on making sense of print, effective and efficient readers select from among the language cues only those that are the most useful. They then make predictions about the text they are likely to encounter, and they reprocess to make corrections if their predictions are not confirmed (K. Goodman 1982). Self-monitoring is an important component of reading, but readers also need the self-confidence necessary to trust that focusing on meaning, and not on individual words, leads to the formulation of effective and efficient reading strategies.

Compatible with this view of reading is a view of error which recognizes that all readers make errors (K. Goodman 1981), and that the important differences among readers of varying proficiency can be seen in the quality, rather than the quantity, of the errors they make (Y. Goodman 1972). Furthermore, errors are not random occurrences. They are, in fact, cued by the same
language systems which cue expected responses. As a result, some psycholinguists refer to these unexpected responses to print as "miscues" (K. Goodman and Y. Goodman 1977). The study of miscues has revealed much about the nature of the reading process, as well as the strengths and weaknesses of individual readers.

Miscue analysis, a procedure for evaluating oral reading miscues, has been developed by K. Goodman, his students, and colleagues over the last two decades. The Goodman Taxonomy of Reading Miscues (K. Goodman and Y. Goodman 1978), a rigorous system of analysis, has evolved as a research instrument since 1965 and has been used in the study of readers of all ages with varying linguistic and cultural backgrounds. Based on the insights from miscue analysis, K. Goodman's psycholinguistic theory of the reading process has emerged (K. Goodman 1984), and that theory continues to inform and shape much current research in reading.

This theory is the result of extensive analyses of readers' actual miscue patterns, and K. Goodman has stated "everything we know we have learned from kids" (1973, p. 3). This statement raises an interesting question: What, then, can readers learn from analyzing their own miscues? Retrospective miscue analysis is one way of beginning to answer that question.
Statement of the Problem

Adult readers who seek support from college and university reading centers often possess misconceptions about the nature of the reading process and their accomplishments relative to that process. However, extensive research has documented that for proficient and nonproficient readers alike, reading involves constructing meaning from print and, in the process, making miscues (K. Goodman and Y. Goodman 1977). Just as the number of miscues varies, so also does the level of comprehension. Thus, in actuality, even for good readers, reading is not a perfect rendering of text that results in a complete, unabridged recollection of what has been read. Perhaps instruction for adult readers can help them see that many of the strategies they employ are effective, while others disrupt meaning and are ineffective. In doing this, they may begin to see error as a qualitative rather than quantitative issue. Ultimately, this awareness of the reading process and of their own strengths and weaknesses may bring about a positive change in the reading strategies they employ. The purpose of this study was to explore whether retrospective miscue analysis can be used to develop this awareness in order to help readers improve their reading strategies and revalue themselves as readers.
Research Questions

This study has been concerned with answering the following major question: How does retrospective miscue analysis as an instructional strategy influence both the reading process and the perceptions readers hold about that process? This major question was investigated through answering several specific questions:

1. How do adults who contact a college remedial reading center for assistance describe the reading process and their strengths and weaknesses as readers?

2. What are those adults' strengths and weaknesses in reading as revealed through analysis using the Reading Miscue Inventory?

3. What changes occur in the adults' perceptions and processes described in questions 1 and 2 over the period of this research?

   a. To what extent can these changes be attributed to retrospective miscue analysis used as an instructional strategy?

   b. What other influences can be identified?

To what extent can the changes in perceptions and processes be attributed to these additional influences on reading development?
Significance of the Study

This study is significant in two respects. First, it examined the influence of retrospective miscue analysis used as an instructional strategy with adult readers. Though the technique has been used by teachers in classroom settings, no thorough analysis had yet been made of its characteristics and usefulness. Furthermore, adult reading instruction is often ineffective because it frequently does nothing more than repeat the same methodologies that have for a dozen or more years failed to help individuals improve their reading. Retrospective miscue analysis represents a significant departure from this trend.

Second, the miscue analysis data collected in this study contributes to our understanding of the reading process. Relatively few miscue studies have examined in detail the reading strategies employed by adults, and this study adds significantly to that data base.

Assumptions

For the purposes of this research, it is assumed that the silent reading process may be inferred on the
basis of oral reading behavior. This basic assumption is essential in miscue analysis research.

It is also assumed that adult readers were candid in discussing their views about the reading process and their particular strengths and weaknesses as readers.

**Limitations**

This study examined in detail the reading strategies and attitudes of two adults requesting the services of a college remedial reading center. Each participated in weekly, individualized sessions focusing on retrospective miscue analysis. A considerable volume of miscue data and descriptive detail was generated in this research, although only two subjects were studied.

**Definitions of Terms**

Following are definitions of terms used in this study:

MISCUE: An observed response (OR) in oral reading which differs from the expected response (ER).

MISCUE ANALYSIS: A procedure based on psycholinguistic principles and used to classify and evaluate oral reading miscues.
READING MISCUE INVENTORY (RMI): Based on the Goodman Taxonomy of Reading Miscues, this is a series of instruments designed to analyze miscues. Each of these procedures varies in its complexity and the specificity of data it provides. Procedure I of the RMI has been used to conduct all miscue analyses in this study.

RETROSPECTION: The process of reflecting upon the past.

RETROSPECTIVE MISCUE ANALYSIS: A questioning procedure used to engage readers in reflecting upon and analyzing their own reading of a particular text.
CHAPTER 2

REVIEW OF THE LITERATURE

This chapter presents a review of the literature related to the use of retrospective miscue analysis as an instructional technique with adult readers. First to be discussed is the literature which contributes to our understanding of the reading processes of adults, followed by a discussion of current instructional practice in adult reading instruction. Secondly, because retrospective miscue analysis has as its focus an attempt to bring the reading process to a conscious level, there will be a review of the research in metacognition and metalinguistic awareness. Finally, a review of literature related to retrospective techniques will be presented.

The Reading Process

A Psycholinguistic Model of the Reading Process

Retrospective miscue analysis is based upon a psycholinguistic model of the reading process which contends that reading is a process of constructing meaning from text. According to K. Goodman (1984), "readers utilize three information systems in constructing their texts and comprehending. Learning to
read is at least partly gaining control over these systems and their interactions in the context of literacy events" (p. 102). The three information systems referred to by K. Goodman include the graphophonic system of relationships between orthography and phonology, the syntactic system of grammatical structures in text, and the semantic system--the "whole system by which language may represent highly complex social and personal meaning" (K. Goodman 1984, p. 103).

Using these sources of information, readers must apply several cognitive strategies in order to construct meaning. These strategies are described by K. Goodman (1984) as:

1. Initiation or task recognition--the overt decision to initiate reading, sometimes inspired by the recognition that something in the visual environment is readable.

2. Sampling and selection--the efficient selection of information to process during reading, based upon "everything the reader knows relevant to language, to reading, and to the particular task" (p. 104).

3. Inference--the strategy of using what is known to guess the unknown.

4. Prediction--the ability to anticipate what language may be coming.
5. Confirming and disconfirming—the self-monitoring strategy used to decide whether predictions and inferences have been confirmed.

6. Correction—the ability to reconstruct text when predictions and inferences have been disconfirmed.

7. Termination—the deliberate decision to discontinue reading.

K. Goodman (1973) has described the interaction between the informational cueing systems and the cognitive strategies used by readers:

Readers develop sampling strategies to pick only the most useful and necessary graphic cues. They develop prediction strategies to get to the underlying grammatical structure and to anticipate what they are likely to find in the print. They develop confirmation strategies to check on the validity of their predictions. And they have correction strategies to use when their predictions do not work out and they need to reprocess the graphic, syntactic, and semantic cues to get to the meaning (p. 9).

Kenneth Goodman's model of the reading process has been principally derived from two decades of empirical research investigating oral reading behavior. The research tool Goodman pioneered to investigate oral reading behavior is referred to as miscue analysis. In its most exhaustive form, miscue analysis is conducted using the Goodman Taxonomy of Reading Miscues, a procedure which considers seventeen questions in analyzing the complex relationships between expected responses (the text) and observed responses (the
miscues) in reading. A less rigorous method for analyzing miscues, the Reading Miscue Inventory (RMI), has been formulated by Y. Goodman and Burke (1972) and recently revised (Y. Goodman, Watson, and Burke 1987). Over the past twenty years, miscue analysis using either the Taxonomy or the RMI has been used to evaluate readers of all ages and proficiency levels, reading many kinds of texts in many different languages.

Readers' Models of the Reading Process

In addition to the models of the reading process suggested by scholars, recent research has indicated that readers themselves hold personal models of the reading process. Harste and Burke (1977) suggest that readers' models of the reading process can be traced to the theoretical orientation of the reading instruction they have received. Harste and Burke further maintain that reading ability is affected by the readers' personal theory of the reading process.

Three basic models held by readers have been described by Harste and Burke (1977). The first is the sound/symbol or decoding orientation. Readers who hold this view of reading maintain that reading is essentially a process of relating the sounds of speech to the graphic display in the text. While they do not discount the presence of syntactic and semantic systems
in language, "they do not see them as primary factors in the acquisition of the process" (p. 35). Readers operating from this orientation demonstrate miscues which are highly similar to the text in graphophonetic characteristics, but often are nonsense words.

A skills orientation represents the second model of the reading process. This theory holds that language is a collection of skills (e.g., word recognition, vocabulary, grammar, comprehension) which are frequently isolated for instruction. Recognition and knowledge of words is seen as the primary strategy in reading by those who hold this view, and readers with this orientation frequently make real-word substitutions that are graphophonically similar to the text but violate syntax and semantic constraints.

The final model has been identified as a whole language orientation. This view recognizes that the systems of language are interrelated in the processing of text, and that focusing on meaning is the primary strategy available to readers. Readers who operate from a whole language orientation frequently make miscues which are dissimilar to the text in graphophonetic qualities. Their miscues also demonstrate effective manipulation of syntax and semantics, so that the text constructed by the reader "in the final analysis sounds like language and retains the author's meaning" (p. 38).
Retrospective miscue analysis has been designed to assist readers in reorienting their personal models of the reading process from either a sound/symbol or skills view to a view more compatible with whole language theory.

Adult Readers

The miscue analysis research conducted with adult readers is particularly relevant to retrospective miscue analysis used as an instructional strategy with adults, and a description of those studies will constitute this portion of the literature review.

It is widely acknowledged that research on adult readers is far exceeded by research which investigates the reading of children. Miscue analysis research is no exception, although several in-depth studies have been conducted on the reading behavior of adults.

In 1977, Raisner used miscue analysis to explore the reading strategies of non-proficient college students. Her study also made use of retrospection, and that aspect of her work is discussed later in this chapter. After analyzing the miscues of fourteen college students ranging in age from twenty-two to forty-plus, she concluded that the most proficient readers in her study were those who most effectively relied on syntactic and semantic cues along with the
graphic display. The more proficient readers were not necessarily those who produced the fewest miscues; but rather were those whose miscues seemed least likely to disrupt the process of constructing meaning. The non-proficient adults in Raisner's study relied heavily on graphophonetic cues and were somewhat aware of contextual cues. As a group, however, their use of semantic and syntactic cues was judged to be far less extensive than their use of graphophonetic information. In short, Raisner concluded that these readers seemed to think reading consists of pronouncing words rather than a process in which all their knowledge of language and of the world can be brought to the task of reading.

At approximately the same time Raisner was conducting her research, Blair (1977) was analyzing and comparing the oral reading strategies of 12 readers whose average age was 20 with 11 older readers whose average age was 62. Each of these students was attending a community college in Arizona. The two groups of readers were compared on their utilization of cueing systems, correction behavior, miscues per hundred words, comprehension scores, and retelling scores. Blair found that both groups of proficient readers relied more heavily on the syntactic cueing system than on the graphophonetic or semantic systems. The older readers had higher retelling scores and demonstrated a
greater reliance than did younger readers on the
semantic system. Both groups competently utilized the
graphophonic system; they also committed about the same
number of miscues per hundred words and self-
corrections.

Raisner had found that the greatest area of
weakness among her non-proficient college readers was in
their abilities to utilize the syntactic cueing system.
Blair's data corroborates this finding, suggesting that
effective use of the syntactic cueing system may be the
aspect of reading which most differentiates between
proficient and non-proficient adult readers.

Another of Blair's findings was supported in a
1978 dissertation conducted by Nieratka. Blair found
that his readers, both younger and older, tended to read
with much higher comprehension rates than their
standardized reading test scores would indicate. He
found that no direct relationship existed between
standardized test scores and reading comprehension
measured by retelling scores. Nieratka (1978) compared
the reading strategies of persisting and non-persisting
(those with grade point averages 1.80 or lower) non-
traditional college freshmen reading narrative and
expository material. In his study, no relationship was
found between persistence through the first year of
college and traditional predictive indices such as SAT
scores, high-school rank, and standardized reading scores. Miscues per hundred words was also not found to be related to persistence in college or to comprehension. However, he did find a significant relationship between reading strategy effectiveness, as indicated by miscue analysis, and whether or not non-traditional students were able to complete their first year in college with a grade point average of 2.2 or higher. Nieratka utilized an "effectiveness formula" which took into account retelling scores and miscue quality in order to judge the readers as "effective" or not at the beginning of the school year. At the end of the year, non-persisters were found to have been those who demonstrated less than effective reading strategies at the outset. All persisters had demonstrated effective reading strategies at the beginning of the year, though both groups were equal in other measures of ability, such as standardized test scores.

The reading strategies of non-proficient college students were also studied by Wolfe in 1981, in an effort to compare their strategies with those employed by native Spanish-speaking English as a Second Language (ESL) students. She found that "there were no significant differences between groups in quantity or quality of miscues in any category, or in the use of cueing systems. Both groups relied most strongly on the
syntactic function and graphic similarity cue systems and made least use of the semantic acceptability cue system" (Wolfe 1981, p. 130). Unlike Raisner and Blair, who found that their readers did not use the syntactic system as effectively as other cueing systems, Wolfe found that the semantic system was used less effectively than other cues. What each study with non-proficient adult readers has in common is the evidence that such readers rely more heavily on graphophonic information than any other cueing system.

Finally, in a dissertation thematically related to this research on retrospective miscue analysis, Curtis (1982) used miscue analysis and several other sources of data to study the effects of process-oriented reading instruction and self-concept enhancement on reading achievement among community college students. The miscue analysis data she collected was used to provide evidence of improved strategy utilization for readers who were introduced to psycholinguistic principles by studying Frank Smith's Reading Without Nonsense. Like Wolfe, she found that students who had enrolled in an reading improvement course relied more significantly on the syntactic cueing system than on the semantic system. Their reliance on graphophonics was not evaluated. Following a semester-long course that included process-oriented instruction and self-concept
enhancement exercises, the readers significantly improved their reliance on the semantic system ($p < .05$) as evidenced by an increase in miscues which were semantically acceptable and were likely to result in no loss of comprehension.

Curtis' belief that a process orientation should be included in reading instruction for adults was based on what she described as "the need to approach teaching adults in a manner that recognizes and respects their adultness and their prior experiences" (1984, p. 29). The importance of recognizing and respecting "adultness" has often been ignored in the design of reading programs for adult basic readers, and yet programs which report the most significant effects are those which are based on andragogical, not pedagogical principles. Much has been written regarding the characteristics of adults as learners (Knowles 1970, 1973; Mocker 1975; Newton 1980; Cross 1981). O'Donnell (1982) summarizes the differences between child-based and adult-based learning as follows:
Although these principles may be generally acknowledged, many scholars argue that these principles are ignored in practice. Kavale and Lindsey in 1977 reported that adult basic education in the United States has not succeeded, due in part to the lack of research on the nature of the reading processes of adults. In a follow-up article published in 1984, Lindsey and Jarman contended that little improvement had been made in adult reading programs since the 1977 survey. The continuing
failure of adult reading programs, according to Lindsey and Jarman, is related to: (1) programs which purported to be learner-directed, and were not; (2) lack of empirical evidence to validate various teaching practices; and (3) the relative paucity of research on the reading processes of adults. They called for more research in general, and especially for studies which are descriptive and qualitative in nature.

The recent explosion of interest in metacognition and the teaching of metacognitive strategies for processing text has led to a set of process-oriented instructional techniques for adults that are less like techniques traditionally used with children. The entire April, 1987, issue of the *Journal of Reading* is devoted to instruction which will help in "making readers independent." Furthermore, holistic, whole-language orientations to instruction have begun to be more prevalent in programs for adult readers. Henrichs (1981) describes a whole-language college reading program in considerable detail, and similar programs are receiving attention nationwide. In their article "Guidelines and a holistic method for adult basic reading programs," Padak and Padak (1987) argued that "above all, programs for adult basic readers should provide theory based instruction that focuses on learner needs" (p. 491). It is within this context that
retrospective miscue analysis is proposed as a viable instructional strategy for use with adult readers.

**Metalinguistic Awareness**

Metalinguistic awareness has been explored for different reasons by different researchers in various disciplines: philosophy, psychology, linguistics, and education. In her review of metalinguistic research, Dybdahl (1982) found that the term has not been used in a clear and consistent manner: "Researchers differ depending on their particular perspective in regards to reflection, access, consciousness, or awareness... [though] the major distinction among positions is not one of incompatibility, but one of emphasis" (pp. 22-23). Dybdahl proposes that the body of metalinguistic awareness research can be seen as existing on "an obvious continuum extending from the use of language to the ability to abstractly reflect on language" (1982, p. 24).

Two points on this continuum have been described by Y. Goodman (1980) in her discussion on the five roots of literacy. She states that as they move toward literacy, children develop:
-- The use of oral language to talk about written language.

-- Metacognitive and metalinguistic awareness about written language.

Most of the research relating metalinguistic awareness to reading falls into these two categories. The research seems aimed at discovering: What kinds of linguistic understandings do readers have? Is some conscious linguistic knowledge a prerequisite to learning to read? Or, does metalinguistic awareness develop naturally as one learns to read?

Oral Language About Written Language

The use of oral language to talk about written language refers to the child's developing control over the categories and terminology adults use when discussing reading and writing. This terminology is often referred to as the "teaching register" (Downing 1976) or the language of instruction. The bulk of research in metalinguistic awareness deals with this aspect of linguistic development, and it seems to focus on the extent to which this kind of awareness is a prerequisite to learning to read.

Studies of pre-school and primary school children provide evidence that young children do not possess adult-like understandings of terms like:
letter, word, syllable, phoneme, sound, sentence, and paragraph. In 1966, Reid investigated the "technical vocabulary" of five-year-old children in Edinburgh. Her series of three interviews with the students exhibited "a great poverty of linguistic equipment to deal with the new experience, calling letters 'numbers' and words 'names'" (p. 58). She noted, however, that the "fact that a child does not, when given opportunities to do so, use a certain term is not proof that it is unknown to him. . . . He may, for instance, understand it when someone else uses it" (Reid 1966, p. 59). Because Reid required productive rather than receptive knowledge of linguistic terminology, Downing (1970) decided to explore five-year-old children's ability to recognize whether they heard a word or not when presented with sounds ranging from a non-human noise to the human utterance of a sentence. He found that the terms "word" and "sound" were "very poorly understood by five-year-old beginners" (p. 111) and expressed these concerns: "Are teachers assuming too readily that children can understand technical terms of language? And are teachers making assumptions about children's understanding of the purpose and nature of literacy?" (p. 112).

Many other researchers have also explored how well children understand the technical terms used in
teaching language. Huttenlocher (1964) hypothesized that the first multiple word utterances are learned as single units, and children later differentiate those utterances into separate words. She found that children between four and five years old had difficulty reversing the words in common word pairs. Ehri (1975) found that prereaders confused syllables and words and had difficulty segmenting sentences into words. Holden and MacGinitie (1972) found that kindergarten children had difficulty segmenting spoken sentences into words. The experiments of Kingston, Weaver, and Figa (1972) also support the finding that first graders have widely varying concepts of words and word boundaries. Downing and Oliver (1973-74) followed up Downing's earlier study and investigated the extent to which pre-school, kindergarten, and first graders understand the term "word." The data supported Downing's earlier findings, and the researchers suggest that misunderstanding linguistic concepts is characteristic of the "cognitive confusion" children have when they enter school. Downing and Oliver state that if teachers do not help students develop an understanding of these concepts, the "cognitive confusion may be greater and more prolonged than would be the case when teachers are aware of the need for care in introducing children to these basic concepts" (1973-74, pp. 581-582).
This body of research is often called upon to support the view that linguistic concepts must be taught before reading will be learned. Samuels (1979) presents a typical argument in this vein:

It is important for all teachers of reading to realize that many students require instruction in order to understand the nature and concept of reading, that students may require instruction in the technical vocabulary used in the language of instruction, and that students will probably require instruction in the conventions of print, so they will understand how print is used to represent spoken language. Furthermore, I believe it is important for educators to develop and test methods for helping students master these prerequisites for reading (p. 7).

A central issue is whether children need to be taught these linguistic concepts, or whether they should be allowed to develop them naturally through meaningful, purposeful use of language. Supporting the latter view, Vygotsky (1962) states:

Practical experience also shows that direct teaching of concepts is impossible and fruitless. A teacher who tries to do this usually accomplishes nothing but empty verbalism, a parrotlike repetition of words by the child, simulating a knowledge of the corresponding concepts but actually covering up a vacuum (p. 83).

Furthermore, MacGinitie has observed that the "difficulties that children have in correlating the understanding of words in utterances with our conventional printed words are somewhat related to success in learning, but not...as closely as one might expect from the ubiquitous use of the word as a
linguistic unit in reading instruction" (1973, p. 5). Any correlation that does exist, however, may be an artifact of classrooms where reading is taught out of a meaningful context as a sequence of skills. Doake (1979) notes that:

The major reason for the child to gain explicit, conscious awareness of these reading concepts and the verbal labels which accompany them, is the product of school reading instruction. In order to teach reading, using the most common present-day methodologies, teachers frequently have to use these verbal labels and so children have to learn this language if they are to understand what their teachers are asking them to do (p. 10).

Y. Goodman has pointed out that "the inappropriate use of a label does not necessarily mean that the child is confused about the concepts" (1980, p. 25). Dybdahl elaborates on Goodman's observation:

Children are excellent users of language intuitively, and their inability to verbalize about their linguistic processes in no way detracts from their sophistication of language use. Many adults would be unable to answer the question, "What is a word?" Most of us have no functional purpose for defining such a concept. We are quite able, however, to use words intuitively in both oral and written language, and to employ the word "word" appropriately in various contexts regardless of an inability to verbalize a definition (1982, p. 26).

Each of the studies cited above dealt with what children knew about linguistic terminology rather than with what they knew about linguistic processes. In view of the arguments proposed by Vygotsky, Doake, Y. Goodman, and Dybdahl, it seems likely that retrospective
miscue analysis procedures would be inappropriate for readers who are actively developing their own linguistic theories in the context of functional language use. For those students, a natural cycle of learning and verbalizing will develop: "As one becomes more adept at using one’s skills, one also becomes more aware of these skills and can verbalize them. Conversely, as one becomes more aware of one’s skills, it is equally probable that one is able to use these skills more efficiently" (Forrest and Waller 1979, p. 4).

However, as children grow into literacy, they do internalize theories about the reading process. Often these metalinguistic understandings serve to help their ability to improve as readers. But some readers may have internalized notions about the process of reading which are hindering their progress in reading. Perhaps retrospective miscue analysis can provide students with an opportunity to reflect upon and reevaluate these notions. This kind of metalinguistic awareness of process (not terminology) is what Y. Goodman referred to as Root V: Metacognitive and metalinguistic awareness about written language.

Metalinguistic Awareness About Written Language

Y. Goodman states "This last root focuses not just on the use of language and the thinking and
conceptualizations necessary for the use of language to occur but rather focuses on the ability to understand and explain the process of language itself. . . . In order to show metalinguistic awareness, there has to be some evidence of analysis of the process" (1980, p. 28).

The metalinguistic awareness of process is closely related to metacognition, a term Flavell has defined as "knowledge or beliefs about what factors or variables act and interact to affect the course of cognitive enterprises" (1979, p. 907) such as language acquisition, writing, problem solving, composition, self control, and self instruction. He states that there are three categories of factors that influence cognition:

1. Person--everything you know about self and others, knowing how and to what degree you "understand"
2. Tasks--your understanding of the demands or goals of tasks
3. Strategy--your understanding of what strategies are effective in achieving what goals

Most of the metalinguistic awareness research about process deals with readers' understanding and control over one or more of these factors.
Compared to the metalinguistic awareness research about knowledge of terminology, fewer studies have been done to explore the relationship between the ability to read and a conscious understanding of the reading process. Huffman, Edwards, and Green (1982) conducted in-depth interviews with children aged four to eighteen to determine how those students would describe the essence of reading:

The developmental pattern reported here indicates that children first tend to emphasize the correct physical behaviors, then to engage in thinking and interacting with others to be sure one has understood what the author meant, and finally to involve themselves in making decisions about what is important to them in comparing intended meaning to their own selected or created meaning (p. 199).

Huffman et al. suggested that readers could be encouraged to reflect on their understanding of text by comparing it to their experiences and expectations—a kind of self-monitoring that seems compatible with Flavell's notion of a cognitive strategy.

Markman (1977) has done extensive research on readers' abilities to monitor their comprehension of text. First, second, and third grade children were asked to judge whether the instructions for a magic trick were complete. Older children were better able to make those judgments, and Markman concluded that the self-monitoring strategy may be dependent on age. A second study by Markman (1979) involved determining
whether third, fourth, and sixth grade children could detect obvious inconsistencies in a short story read aloud to them. The results supported her earlier finding that older children are better able to monitor their understanding than younger children.

In 1980, Garner hypothesized that differences between good decoders who understand what they read and good decoders who do not may lie in the ability to monitor comprehension. Two basal stories were altered to include statements that made sense within the sentence but which when considered in the context of the paragraph or passage made no sense. Fifth grade students were asked to judge whether the passages were easy or difficult to understand. She did find evidence that good comprehenders were more able to detect and report confusing text. One of her important conclusions is that poor readers may be so adept at expecting nonsense in print that they may no longer attempt to monitor understanding.

Gambrell and Heathington (1981) explored the metalinguistic awareness of adult good and poor readers. The readers were asked questions designed to reveal their perceptions of the purpose for reading and the strategies available to them. "The most dramatic finding was that, in general, adult poor readers are not aware of strategy variables or their role in
facilitating comprehension" (p. 215). Furthermore, "adult disabled readers perceive reading as a decoding process rather than as a meaning construction or comprehension task" (p. 215).

Brown, Campione, and Day (1980) experimented with mildly retarded grade school children to see if they could be trained to monitor the strategies necessary for rote memorization. They found that the eleven-year-old children were able to profit from the training, but the nine-year-old children were not. The training emphasized conveying to children the purpose of the task and the relevance of the strategies that were being taught. These two areas of cognition relate to Flavell's notions of "task" and "strategy." But Brown et al. are cautious in their conclusions:

What we are advocating is, of course, an avoidance of blind training techniques, and a serious attempt at informed, self-controlled training--to provide novice learners with the information necessary for them to design effective plans of their own.

If learners can be made aware of (a) basic strategies for reading and remembering, (b) simple rules of text construction, (c) differing demands of a variety of tests to which their information may be put, and (d) the importance of activating any background knowledge they may have, they cannot help but become more effective learners. Such self-awareness is a prerequisite for self-regulation, the ability to orchestrate, monitor, and check one's own cognitive activities (1980, p. 20).
Implications for Retrospective Miscue Analysis

Each of the metalinguistic awareness studies seems to indicate that some metalinguistic awareness of the reading process does exist in older children and adults—whether it is a prerequisite to learning or the product of the learning is controversial. Also, there is some evidence that there are qualitative differences in the metalinguistic awareness of adult good and poor readers:

Adult poor readers seem to be unaware of many of the characteristics of good readers and the special strategies required for resolving comprehension failures. Adult poor readers tend to refer to external sources, such as another person, to resolve comprehension failure and are not aware of independent, internally generated strategies. It seems reasonable that instruction with adult disabled readers should focus on both awareness and use of a repertoire of strategies (Gambrell and Heathington 1981, p. 2, emphasis theirs).

According to Doake (1979), "Many children have survived what we have done to them in the name of reading instruction because of an intrinsically motivated drive towards achieving literacy and because they have refused to allow their already well-developed language learning strategies to be distorted and destroyed" (p. 18). But what about readers who did not survive? Doake asserts that "those who fail to achieve a functional level of literacy are frequently those who
have tried to follow the teachers' instructions precisely" (1979, p. 19), and those strategies simply do not work for them.

Retrospective miscue analysis may be a way of helping readers become consciously aware of their own reading processes and assisting them in evaluating the efficiency and effectiveness of the strategies they employ. Clearly, one may have reservations about raising to a conscious level a process which is developing naturally, but older readers who are conscious of and perhaps frustrated by their lack of proficiency may benefit from a conscious inquiry into their actual reading performance. Nothing found in the literature seems contrary to this hypothesis, and some of the metalinguistic awareness researchers seem to be calling for more of these kinds of investigations. Three such suggestions are presented from scholars working in the field:

In the conclusions of their study, Gambrell and Heathington state:

Additional metacognitive research is needed to identify discrepancies between how readers think they read and how they actually process print. . . . If metacognitive awareness about reading is shown to be critical to the acquisition of proficient reading skills, then educators working with adult disabled readers may want to incorporate specific instructional activities for teaching this information (1981, p. 221).
Flavell notes that there are legitimate caveats about educational interventions in natural cognitive processes, but asserts:

... lack of hard evidence notwithstanding, however, I am absolutely convinced that there is, overall, far too little rather than enough or too much cognitive monitoring in this world. ... I find it hard to believe that children who do more cognitive monitoring would not learn better both in and out of school than children who do less. I also think that increasing the quantity and quality of children's metacognitive knowledge and monitoring skills through systematic training may be feasible as well as desirable (1979, p. 910).

Finally, in her review of the literature on comprehension monitoring, Wagoner concludes:

What, if anything, does this research have to say about instruction? People get better at comprehension and monitoring of comprehension as they get older; good readers are better at both than are poor readers, even though direct instruction in monitoring is lacking. Can poor readers be taught to do what good readers do? Would such instruction improve comprehension? (1983, p. 344).

**Retrospective Miscue Analysis**

Retrospective miscue analysis is a procedure which encourages readers consciously to reflect upon and evaluate their own reading processes through analyzing their miscues. The term "retrospective" has been used because, in this procedure, readers are asked to comment about their miscues after the reading has taken place. This is in contrast to an introspective procedure, where
readers would comment about their miscues as they make them.

It is important to acknowledge, however, that the term "retrospective" is potentially misleading. Webster's Collegiate dictionary has defined retrospection as "the act or process or an instance of surveying the past." One might infer that this "surveying of the past" would be generally motivated and directed from within the individual, without prompting from another source. An inference of this nature leads one to concur with Harker (1974):

"The nature of introspection and retrospection itself can cast doubt upon the accuracy of findings resulting from the use of this method. Introspective-retrospective techniques are based upon the assumption that the reader can and will provide an accurate account of his mental activity while reading. At the very best, this account must be limited to reporting the conscious mental activity which the reader is prepared to impart freely (p. 92-93)."

While it is true that in retrospective miscue analysis procedures readers are involved in analyzing a past reading, they are not required to remember spontaneously and reflect upon that reading. In fact, retrospective miscue analysis sessions in this research rely on tape-recordings of earlier readings and focus readers on analyzing miscues which have already been selected by the researcher—definitely a "directed" procedure. It
is anticipated that only incidentally will readers offer what they remember thinking as they read the text.

The key to the procedure, then, is not the purely retrospective aspect; after all, most miscue analysis is performed on reading tape-recorded at a previous time. Rather, the key element is that the procedure involves readers in analyzing their own miscues and determining the extent to which those miscues influence their reading processes.

A Research Tool for Understanding the Reading Process

Before retrospective miscue analysis was used as a directed, instructional procedure, retrospective and introspective methodologies were used as research tools for gaining insight into the reading process. In many of the studies reviewed below, a combination of introspection and retrospection was used to gather data on the thought processes of readers. The protocols used by the researchers often relied upon readers' spontaneous recollections, and as such were relatively "undirected." While several of these studies may be criticized for the limitations mentioned by Harker (1974, quoted above), they are included here to trace the development of introspective(retrospective techniques in studying the reading process.
Although there have been studies using retrospective and introspective techniques since the beginning of this century, the majority of studies have been reported during the past 35 years. In 1950, Bloom and Broder responded to a concern that psychological assessments placed too much emphasis on outcome scores, and relatively little emphasis on the cognitive processing that produced such scores. Recognizing that students may arrive at correct answers based on faulty reasoning, Bloom and Broder studied the thought processes reported by college age students as they engaged in problem-solving. The procedure was flawed: some students were unable to verbalize their thought processes--others seemed merely to neglect doing so. Moreover, the researchers speculated that many thoughts critical to problem-solving are unconscious, and therefore inaccessible to both student and researcher. Bloom and Broder's study was the first of many using introspective/retrospective techniques to originate from the University of Chicago.

Swain (1953) utilized a "think-aloud" protocol in an effort to determine whether college students of varying reading ability used different thought processes as they interpreted what they had read. After reading selections from science, social studies and literature, students were presented with questions designed to
prompt their interpretation of the passages. Further, they were asked to "think-aloud" as they formulated answers to the questions, and those verbalizations were tape-recorded. Analysis of the tapes indicated that average readers were the most flexible in their thought processes; that is, they were able to adjust their patterns of interpretation as new insights became clear to them. Swain speculated that good readers may make correct choices in interpreting what they read and hence have no need to change their minds, while poor readers seem either unable to change or unaware of the need for changing an interpretation.

In 1954 Piekarz at the University of Chicago also investigated interpretive responses of readers in order to gain insights into thought processing. Sixth graders were asked to read a passage silently, orally summarize their reading, and then reread portions of the original selection while verbalizing what they were thinking the first time they read the material. Bloom had theorized that readers would be able to recall their thinking if given access to the actual material they had read, and Piekarz found that these above-average readers were, in fact, able to verbalize a great deal about what they were thinking. Individuals varied in the frequency and nature of their responses, and better readers tended to make longer and more complex responses.
Three years later, Jenkinson (1957) used introspective/retrospective techniques to explore the thought processes of tenth graders as they performed cloze tasks. Students performed cloze exercises, and the eleven highest and eleven lowest scoring individuals were given the same cloze passage one week later. They were asked to verbalize about what they recalled thinking when they originally performed the task, and this constituted the retrospective portion of the study. They were also given new cloze passages to complete, and were asked to verbalize about their thinking as they completed the new passages—the introspective portion of the study. Jenkinson concluded that the patterns of verbalizations differed between the two groups of readers. Students who had performed better on the cloze exercises displayed more of the same kind of flexibility in their responses noted by Piekarz and Swain earlier. However, Jenkinson also noted that although differences exist among readers, the verbalizations themselves probably provide only limited insights into the actual cognitive processes utilized when performing cloze exercises.

Two publications in 1965, one by Strang and Rogers and the other by Robinson, have also contributed to the research utilizing introspective/retrospective techniques. In his dissertation, Rogers compared the
verbalizations of good and poor eleventh graders as they read a short story, and found that good readers were more able than poor readers to demonstrate their critical thinking, i.e., generalizing, contrasting, predicting, and evaluating what they read.

Robinson (1965) used introspective techniques to evaluate the extent to which a group of fourth graders were able to use study skills (problem-solving skills and reference skills) while doing their social studies research. He concluded that this kind of eavesdropping on thought processes could suggest areas where children obviously require further instruction.

In 1971 Fareed published yet another study originating from the University of Chicago. He had sixth graders silently read passages in history and biology, and as they re-read them orally they verbalized their interpretive responses. Fareed speculated that the differences in the styles and vocabulary of the passages would prompt different patterns of interpretive responses in the readers. What he found, though, is that individual readers display varying patterns of responses, but that those individual responses are rather static across differing passages. Like Robinson, Fareed drew instructional implications from his study: teachers could benefit from being aware of the
individual differences in the interpretive response patterns of their students.

Raisner was among the first to use retrospective techniques in conjunction with miscue analysis. In 1977 she studied fourteen non-proficient adult readers reading expository texts. After students read a passage, they were asked to listen to the tape-recorded reading and comment on any miscues they detected. Raisner reports that the retrospective sessions tended to provide insights which supported the miscue data; that is, cueing systems mentioned most frequently by individual readers tended to be the cueing systems they focused on while reading. The group varied widely, however, in both the frequency with which they detected miscues and depth of their recollections about what they were thinking as they made particular miscues. Of critical importance is Raisner's speculation that allowing readers to analyze their own miscues in a more directed, organized technique would help those readers better understand the reading process and gain more control over their reading.

More recently, Coles (1981) combined retrospective procedures with miscue analysis to study the reading strategies of junior high school students reading both researcher-selected and reader-selected texts. Interestingly, he found that the retrospective
responses of the readers differed depending on whether they had selected the reading material. When reading self-selected material, the readers displayed a great concern for understanding what the text meant in its larger sense. This pattern of response is contrasted to their tendency to focus on specific details and terminology, not on the meaning of the text as a whole, when reading researcher-selected exposition.

Coles also reports that his subjects demonstrated an awareness of the kinds of reading strategies identified in K. Goodman's psycholinguistic model of the reading process: sampling, predicting, confirming, and correcting. Furthermore, he suggests that "retrospective techniques may be applied to classrooms as a research technique and as an instructional strategy" (1981, p. 224).

Retrospective techniques are currently being investigated in the classroom by Weatherill (in progress). The retrospective protocol is similar to that used by Raisner, in that students are asked to comment upon any miscues they detect while listening to an earlier, tape-recorded reading. In Raisner's research, adults were studied, and Weatherill is now exploring the technique when used with younger readers (sixth graders). Weatherill will in more detail explore the phenomenon reported by Coles--that readers through
retrospection reveal much about their understanding of the reading process itself.

The range of studies reviewed above are included to suggest the way in which introspective/retrospective techniques have evolved in the study of the reading process. The earlier studies, conducted primarily in the 1950s, focused on discerning the varying thought processes used by readers in interpreting a variety of material. The majority of these studies involved mature readers, though some elementary school children were included. In the 1960s, introspection and retrospection were used in some instances to evaluate, not merely describe, the cognitive processes of children, especially with respect to the development of specific skills (e.g., using reference materials when writing science reports). There had emerged by this time the notion that what readers revealed to teachers about their thinking could be used to design appropriate instructional strategies. The late 1970s and early 1980s reveal a different trend, however. Researchers increasingly realized that retrospection and introspection provide insights not just about what readers think, but about the extent to which they are aware of their processes of thought. And investigators like Raisner and Coles began to suggest that readers
themselves might benefit from a greater understanding of the processes they use when they read and think.

In effect, there seems to have been a progression over time from the researchers who originally asked "What do readers report that they think about while reading?" to "What can teachers do with that knowledge?" to "What do readers understand about their reading processes?" and, now, "What can readers do with that knowledge?" This final question has been considered by the researchers cited below and is the focus of this study.

An Instructional Tool for Improving Reading Strategies

In 1975, a Canadian reading consultant named Chris Worsnop responded to what he described as "a great need to see miscue theory reflected in reading programs in some way that is economical in time, applicable to more than one student at once, and usable as a teaching as well as a diagnostic tool" (n.d., abstract). He was well aware of the uses of miscue analysis for exploring the reading process, but Worsnop was looking for an instructional use, too. He was interested in discovering whether the insights previously restricted to teachers and researchers could be made accessible to readers themselves. It was time, in Worsnop's opinion,
for miscue analysis to find its way into the hands and minds of readers.

At the time Worsnop was beginning his investigations, many researchers were discussing ways that miscue theory could have an impact on classroom pedagogy. K. Goodman began analyzing miscues in 1963 "for the express purpose of providing knowledge of the reading process and how it is used and acquired" (1973, p. 3). Ten years later, he edited a volume entitled Miscue Analysis: Applications to Reading Instruction, in which he stated: "Now we are at a point in our research where we feel we know enough about how reading works that we can share with teachers and other practitioners some of our insights and their implications for reading instruction" (1973, p. 3). The instructional applications in that volume are diverse, and they foreshadowed the impact miscue analysis was to have on the field of reading for the next ten years.

Although miscue analysis was "leading to a new set of criteria for judging what is of value in reading instruction" (K. Goodman 1973, p. 11), Worsnop was among the first to try teaching students to conduct formal analyses of their own miscues. In the technique outlined by Worsnop, standard Reading Miscue Inventory (Y. Goodman and Burke 1972) procedures are followed. In the Reading Miscue Inventory, each miscue made by a
reader reading a complete story aloud is coded and later analyzed. Nine questions about each miscue are asked in order to evaluate the reader’s strategies and facility within the three language cueing systems (graphophonic, syntactic, and semantic). The reader’s retelling of the text is also scored so that a more complete comprehension profile can be seen. In Worsnop’s research, a retrospective miscue analysis session immediately followed the reading and retelling. During that session, the tape recording of the reading was replayed, and the reader was asked to stop the recorder whenever a miscue was heard. The miscue was then analyzed through asking the following questions:

1. Does the miscue make sense?
2. Does the miscue sound like language?
3. Does the miscue look and/or sound like the text item?
4. Was the miscue corrected? Should it have been?

The questions were designed to focus readers on the graphophonic, syntactic, and semantic cueing systems, while also revealing the ways in which readers use the strategies of predicting, sampling, confirming, and correcting.
Retrospective miscue analysis is based on an assumption that although the reading process is the same for all readers, good and poor readers differ in their ability to control syntactic and semantic information. Two major research studies substantiate this view.

In their 1973 study, K. Goodman and Burke studied the miscues produced by 94 high, average, and below average readers ranging from Grade 2 through Grades 4, 6, 8, and 10. Analysis of those miscues indicated that:

1. There is only one reading process in which three types of information (graphophonic, syntactic, semantic) are dealt with in an integrated way;

2. This integration is achieved through the processes of sampling, predicting, confirming, and correcting;

3. The primary aim of reading is getting meaning;

4. Proficient, average, and non-proficient readers all use the same processes. The differences in their success at extracting meaning from print are a consequence of how they control these processes, not in the processes they use;

5. The major differences between proficient and below average readers are a function of how well they control the semantic and to a lesser extent the
syntactic information. There are few differences in the degrees of control that children at different levels of reading proficiency display over the graphophonic processes.

Rousch and Cambourne (1979) studied the reading processes of Australian children in Grades 2, 3, 6, and 8, hypothesizing that "readers of different abilities and ages would exhibit reading strategies reflecting these differences, thus enabling the compilation of a model of the reading process" (p. 1). Included in their study were readers of proficient, average, and low ability. Their results confirmed the findings of K. Goodman and Burke:

(i) Proficient, Average and Low ability readers are very similar in terms of both correction behaviour and the use of graphophonic cues... . [As] a criteria for differentiating between [readers], both have very low reliability.

(ii) Proficient, Average and Low ability readers are very dissimilar with respect to syntactic and semantic variables. Proficient readers manage to focus on, monitor and maintain a much higher level of syntactic and semantic acceptability than do the Average and Low ability readers (1979, p. 86-87, emphasis theirs).

Worsnop hypothesized that teaching poor readers to analyze their own reading miscues might help them more directly see their strengths and weaknesses at work in the reading process.
In 1975, 1976, and 1977 Worsnop experimented with retrospective miscue analysis, and successively refined the procedure with each trial. In his first experiment, poor readers in seventh grade worked with each other in pairs in order to analyze their miscues. In 1976 he worked with pairs of readers in a special learning disabilities classroom. Finally, in 1977, he organized ninth graders from a special reading class into groups of eight to conduct retrospective miscue analysis. Worsnop did not report statistical analyses of his findings. He relied instead on his and other teachers' informal observations of the students, along with the students' self-reported progress. According to the students and their classroom teachers, the procedures brought about an improvement not only in the students' reading across the curriculum, but also in the students' attitudes toward themselves as readers. They began to take more risks in attempting to read, they read more material from a variety of sources, and they more positively viewed their accomplishments as readers.

Stephenson (1980) used retrospective miscue analysis techniques in an attempt to develop an instrument students could use in studying their own oral reading behaviors. She wanted her high school students to learn that making miscues during reading is acceptable if comprehension is the goal for the reading
process. She hypothesized that her students were overrelying on the graphophonic cueing system, while they allowed comprehension to languish. Her retrospective miscue analysis questioning procedure was similar to Worsnop’s, but her research design was more rigorous. Stephenson used the Reading Miscue Inventory to evaluate each of six students prior to the four-week experiment. Three of those students were then selected as the experimental group, and the Reading Miscue Inventory was used at the end of her study to evaluate whether the students had in fact improved their reading strategies. Her results showed that retrospective miscue analysis made only a slightly positive difference in the application of reading strategies; but, like Worsnop, Stephenson reported that definite gains were made in the students' attitudes toward themselves as readers.

Miller and Woodley (1983) explored Worsnop's procedures during a summer workshop and posed seven general questions about the use of retrospective miscue analysis:

1. What applications do RMA procedures have for instruction? Research?
2. With what types of readers can RMA be helpful?
3. Can RMA be effective without direct participation of the teacher?
4. What questions should be asked about specific miscues?
5. What is the optimal reading level of difficulty for the RMA text?
6. What is the optimal time lag between reading and the subsequent analysis of miscues?
7. Should all miscues be analyzed? If not, which ones?

With these questions in mind, Miller and Woodley studied retrospective miscue analysis with a ten-year-old and then with an eleven-year-old. A third pilot session paired the two readers so they could work together to analyze their miscues. Miller and Woodley also report the use of retrospective miscue analysis in an instructional setting with high school students in a southern Arizona reading laboratory. General retrospective miscue analysis procedures were introduced to groups of ten to fifteen students over a three-week period. Students were then organized into groups of four to five for conducting individual sessions. Miller and Woodley (1983) reported that:

1. The students were less critical, more accepting, of the reading behavior of themselves and others.
2. The students seemed more comfortable when talking about their own reading with others, including the teacher.

3. Because the teacher had heard extensive oral reading by many of the students, instructional responses to the reading were made (p. 64).

Many of these studies have not been published in sources readily accessible to researchers and teachers, and the literature contains no further research into the use of retrospective miscue analysis as an instructional tool.
CHAPTER 3

RESEARCH DESIGN

This chapter will describe the research conducted by the author with two adult readers. An overview of the study, the participants, the instruments used, and the analyses of the data are outlined.

Overview

This exploratory research has been conducted to answer the following major question: How does retrospective miscue analysis as an instructional strategy influence both the reading process and the perceptions readers hold about that process? This major question has been investigated through answering several specific questions:

1. How do adults who contact a college remedial reading center for assistance describe the reading processes and their strengths and weaknesses as readers?

2. What are those adults' strengths and weaknesses in reading as revealed through analysis using the Reading Miscue Inventory?

3. What changes occur in the adults' perceptions and processes described in questions 1 and 2 over the period of this research?
a. To what extent can these changes be attributed to retrospective miscue analysis used as an instructional strategy?

b. What other influences can be identified? To what extent can the changes in perceptions and processes be attributed to these additional influences on reading development?

Subjects

Two subjects for this investigation were selected from among adults contacting the University of Nevada-Reno and Truckee Meadows Community College remedial reading programs for assistance with their reading. Each of these institutions for higher education is located in Reno, Nevada, a community in northwestern Nevada with a population of approximately one-quarter million. The two subjects, both women, attended retrospective miscue analysis sessions approximately once per week for 12-16 weeks with the investigator. Case studies are presented in Chapters 5 and 6 for each subject who participated in this study.

The subjects were selected on the basis of preliminary miscue analysis and reading attitude interviews. The Burke Interview Modified for Older Readers (BIMOR) was used to assure selection of subjects who needed to revalue themselves as readers: that is,
those who believed they have failed in reading. For the purposes of conducting miscue analysis, each selected subject must also have produced a minimum of 25 miscues during an oral reading of a text that they had not read before. In order to be selected for the study, each subject demonstrated reading strategies which indicated the reader was less than "highly effective" according to the guidelines proposed by Y. Goodman and Burke (1972, pp. 113-114); that is, the comprehension profile showed that more than 40% of the miscues made by each reader resulted in some loss of comprehension.

**Methodology**

For each of the research subjects, the following data were collected:

1. At the outset of this investigation, the Burke Interview Modified for Older Readers was used to gather data on the subjects' perceptions of the reading process and their perceptions of their own strengths and weaknesses as readers.

2. At the conclusion of the investigation, selected questions from the Burke Interview Modified for Older Readers were asked, and an open-ended Closing Interview was conducted to assess whether readers' perceptions as identified in #1 changed during the course of the study.
3. At the outset of the study, the researcher collected background information from each subject. Information was gathered on each subject about her educational and vocational experiences, as well as personal interests (see Appendix A). The information was used to stimulate dialogue between the researcher and the subjects throughout the study. This dialogue was tape-recorded as part of the retrospective miscue analysis sessions, and together with the other information gathered has been used to evaluate additional influences on each adult's reading development.

4. Each text read by the two subjects in this study has been analyzed using Procedure I of the Reading Miscue Inventory in order to identify each subject's strengths and weaknesses at the outset of the study and to document the development of effective strategies throughout the study. Research by Menosky (1971) has demonstrated that the quality of miscues produced by a reader tends to improve as the reader moves through the text. Analyzing all miscues produced in a text will provide the most complete profile of the reader's strategies in a particular text.

5. Descriptive data were gathered from transcripts of retrospective miscue analysis (RMA) sessions. Specifically, tape-recorded RMA sessions have
been reviewed for evidence of students' changing perceptions about the reading process and about their individual abilities. Tapes have been transcribed where they documented evidence regarding (1) subjects' attitudes about the quality and quantity of miscues they make; (2) how subjects relate miscues to comprehension; and (3) whether subjects develop and/or modify their personal models of the reading process.

Instruments

Following are descriptions of the instruments and procedures used in the research methodology listed above.

BURKE INTERVIEW MODIFIED FOR OLDER READERS: This open-ended interview is designed to elicit from readers their perceptions of the reading process as well as their strengths and weaknesses as readers. The interview, as adapted for use with adults, appears as Appendix B.

CLOSING INTERVIEW: This open-ended interview has been excerpted from Worsnop (n.d.) and adapted by this researcher for use in evaluating retrospective miscue analysis. The questions are listed in Appendix C.

READING MISCUE INVENTORY PROCEDURE I: In anticipation of retrospective miscue analysis sessions, readers were asked to read orally into a tape-recorder a complete
text (perhaps a short story, a chapter of a novel, or a magazine or newspaper article), and then retell what they recalled about the text.

In each of these readings, subjects read orally, unassisted by the researcher, after having been told they must retell all they can remember when finished. The retellings were collected to provide the researcher with information about areas in the text which may have been problematic and which might have been especially appropriate for focus in RMA sessions. Because the majority of texts were self-selected by the readers at the time of the reading, typical retelling outlines were not prepared and scored during the retellings.

After the reading and retelling, the researcher analyzed the reading using the miscue analysis questions in Procedure I (Appendix D). From Reading Miscue Inventory coding sheets (Appendix E), the researcher then selected those miscues which were focused upon during the subsequent RMA session. Miscue selection procedures are discussed below.

RETROSPECTIVE MISCUE ANALYSIS: One to two weeks after the session held to tape-record the reading, a retrospective miscue analysis session was held.

During that session, the researcher and reader tape-recorded their discussion of the miscues made by
the reader during the previous session. The researcher previously selected for discussion miscues which showed effective use of strategies, as well as miscues which showed a variety of ineffective strategies. Because confidence-building is critical to the success of RMA as an instructional tool, the sessions tended, especially in the beginning, to focus on encouraging readers to revalue those strategies which are effective. Specifically, initial RMA sessions concentrated on having subjects analyze miscues which showed "strength" or "partial strength" in controlling the syntactic relationships within the text, in addition to miscues which suggested "no loss" or "partial loss" of semantic information. Patterns of strength and weaknesses in controlling the semantic and syntactic systems of language were revealed in the Reading Miscue Inventory analyzed after each reading (see Appendix E, under "Meaning Construction" and "Grammatical Relationships"). Focusing first on miscues which show reader strength may have helped readers build confidence and begin to revalue their perceptions about the nature of error. Gradually, as the RMA sessions continued, more attention was given to exploring miscues which suggested less productive strategy use, i.e., those which showed "loss" of comprehension and "weakness" in controlling syntax.
Twenty-five miscues were selected in advance of the one-hour session, and the number of miscues considered during any one session varied.

During the RMA session, the reader was presented with a typescript of the previous reading, marked with the miscues to be discussed. The appropriate excerpts from the tape-recorded reading were played, and the subject had the opportunity to view the text and the marked miscues, as well as to hear the actual reading.

The researcher would point on the typescript to the miscue selected for discussion, saying, "We'll talk about this one." Then the portion of the tape containing that miscue would be played, and the researcher would say, "What did you do here?" The subject would then describe the miscue, e.g., "I said 'would' and the story said 'could'." After each miscue was described, the following questions were asked, in an attempt to raise the strategies of confirming and correcting to a conscious level:

1. Does the miscue make sense?
2. a. Was the miscue corrected? b. Should it have been?

If the answer to Questions 1 and 2a was "No" then an attempt was made to reveal other cueing systems the reader may have used in making the miscue. These questions were then asked:
3. Does the miscue look like what was on the page?

4. Does the miscue sound like what was on the page?

In an attempt to raise the strategies of selecting and predicting to a conscious level, the following question was asked:

5. Why do you think you made this miscue?

Finally, for each miscue, readers were asked to evaluate the extent to which they thought the miscue was detrimental to their understanding of the text:

6. Did that miscue affect your understanding of the text?

Each retrospective miscue analysis session was also tape-recorded, and relevant portions were transcribed.

**Data Analysis**

For each case study, the following data have been analyzed to answer the research questions on pages 55-56:

1. Attitudes about reading revealed at the beginning and at the end of the study have been analyzed through responses to the Burke Interview Modified for Older Readers. Additional data were gathered at the end
of the study through the Closing Interview. These data will be used in answering research questions 1 and 3.

2. The strengths and weaknesses demonstrated by each reader throughout this study have been analyzed using the Reading Miscue Inventory Procedure I. These data will be used in answering research questions 2 and 3.

3. Tape recordings from retrospective miscue analysis sessions have been analyzed to trace individual changes in subjects' perceptions about the reading process and their abilities as readers. Included in these recordings are the actual retrospective miscue analysis sessions, as well as discussions about other influences on individual reader's development. These data will be used in answering research question 3.

Presentation of Findings

The results of this research are most clearly understood when the development of each reader is presented separately. While they share some common characteristics and attitudes, an amalgamation of their data would serve only to disguise their individual patterns of development and the unique contributions each made to the exploration of retrospective miscue analysis as an instructional strategy. Consequently,
detailed case studies are presented in Chapters 5 and 6, each containing a combination of statistical and descriptive data gathered from interviews, miscue analyses, and tape-recorded sessions with the researcher. These case studies will focus on individual reading strategies and perceptions, and suggest the extent to which changes in these perceptions and processes can be attributed to retrospective miscue analysis as an instructional tool.

An unanticipated factor in this research has been the on-going reshaping of procedures used in retrospective miscue analysis. Chapter 4 includes a discussion of this factor, and a "lesson plan" for how an RMA session might be conducted. Also unanticipated has been the development of the researcher's own model of the reading process, and without acknowledging those changes, this research discussion would be incomplete. Chapter 7 will discuss these findings as well as present conclusions, implications, and recommendations for further research.
CHAPTER 4

THE EVOLUTION OF THE RMA STRATEGY

The retrospective miscue analysis (RMA) strategy explored in this research is a modified version of the technique described by Worsnop (n.d.). Modifications to Worsnop's technique were made after the researcher viewed a videotape of Worsnop working with Junior High school students using RMA, and after the researcher piloted the Worsnop technique with an adult reader. The process by which modifications were made is described below.

In Worsnop's research, the following RMA procedures were used: Immediately following a reading and retelling, the tape recording of the reading was replayed, and the reader was asked to stop the recorder whenever a miscue was heard. The miscue was then analyzed through asking the following questions:

1. Does the miscue make sense?
2. Does the miscue sound like language?
3. Does the miscue look and/or sound like the text item?
4. Was the miscue corrected? Should it have been?
The questions were designed to focus readers on the graphophonic, syntactic, and semantic cueing systems, while also revealing the ways in which readers use the strategies of predicting, sampling, confirming, and correcting.

Both the general procedure and the specific questions were somewhat unclear at the outset of this study. Several questions were raised:

1. Does the procedure of allowing students to discuss only those miscues which they hear focus readers on low-quality miscues, and thereby further enforce their feelings of inadequacy?

2. Does the procedure of conducting an RMA session immediately following a reading preclude the teacher from taking the preparation time necessary to direct attention to miscues which demonstrate strength in the reading process?

3. How do readers interpret the question, "Does the miscue sound like language?"

4. Are the processes of predicting and confirming raised to a conscious level through these RMA questions, or should readers be encouraged to think about why they make certain miscues?

5. Is there a sufficient emphasis on recognizing the different levels at which miscues can "make sense"? Should readers be helped to see that some
miscues make sense at a sentence level, but are inconsistent with the text as a whole?

6. Should the question "Does the miscue look and/or sound like the text?" be asked for every miscue, or might that shift the emphasis from "making sense" to "reproducing text"?

Viewing a videotape of Worsnop using these RMA techniques with Junior High school students provided some insight into these issues. The videotaped session showed Worsnop working with several students in a group. The tape-recorded reading of one student was being replayed, and members of the group were silently reading the same text, listening for miscues. Both negative and positive aspects of the technique were noted:

1. There was some natural embarrassment on the part of the student whose reading was being replayed, although his peers were in no way intentionally unkind. Conducting RMA sessions in a more private setting seemed worth exploring, especially for readers who are low in self-confidence and unfamiliar with the RMA strategy.

2. Allowing students to select the miscues they wished to analyze had both negative and positive ramifications. On the positive side, self-selection fostered a sense of ownership among the participants for directing the sessions. Also, the discussions and occasional disputes over whether a miscue had been made
resulted in lively interaction among the participants. Quite expectedly, group leaders spoke out most often and were persuasive when deciding whether miscues made sense. But what about students who didn’t participate in the discussions? Were they learning by observing the thinking of others? Or, was the process abstract and meaningless to them?

3. Because students were listening for miscues and then stopping the tape-recorder, they frequently caught only the first word of a complex miscue, and then they debated that miscue in isolation. Also, they were listening to the reading from its beginning, where lower quality miscues are more likely to occur. For these reasons, discussions of high-quality miscues were less frequent than one might wish.

4. The question "Does the miscue sound like language?" was variously interpreted to mean: (1) Does the miscue result in a "grammatically proper" sentence?; (2) Does the miscue sound like something someone would say?; or (3) Does the miscue sound like it could be a word, whether it is or not? It was not clear from Worsnop's interaction with the students what his interpretation of this question was. It was possibly designed to focus students on the syntactic system of language, though its effectiveness in doing so seemed questionable.
Having seen Worsnop's procedure in action, the researcher next conducted a private, two-hour session with a developing adult reader in order to more fully explore the RMA technique. This pilot session was held in Tucson, Arizona, in the home of a young woman named Carmen.

**A Preliminary Case Study: Carmen**

**Background**

In September, 1983, Carmen contacted the Program in Language and Literacy at the University of Arizona to request help with her self-described "fourth grade" reading skill. Carmen became in some sense a "research subject" for a course in Psycholinguistics and Reading that Dr. Yetta Goodman was teaching that fall.

Carmen was married and in her mid-twenties, and she had an 18-month old son. She was born in Mexico and attended first grade there. She related that she was "smart" when she was in the first grade, as evidenced by her placement in the "high group." But then her mother died, and the family moved to Tucson. There, she began to get poor grades, and since her teacher spoke no Spanish, Carmen faced a great deal of difficulty. She spent second grade in the "low" group, and the rest of her school years she spent in remedial classes.
Finally, after years of feeling embarrassed at being, in her words, "dumb," she dropped out of school.

The Burke Interview

During her first meeting with members of the Psycholinguistics and Reading class, Carmen was interviewed using questions on the Burke Reading Interview (Y. Goodman, Watson and Burke 1987). Her responses to the interview questions suggested that she possessed misconceptions about the reading process and her own reading ability. Her perceptions are revealed in the following excerpts from that interview.

Question: When you are reading and you come to something you don't know, what do you do?

Carmen: Skip the word. I improvise. I leave out the word. If I skip a word, I usually can understand. But that's bad, because I want to understand all of what I read.

Question: Who is a good reader that you know?

Carmen: My brothers are good readers.

Question: What makes them good readers?

Carmen: They all went to college in Guadalajara. They are all intelligent.

Question: What do your brothers do when they come to something they don't know when they read?

Carmen: They never come to something they don't know. They're very smart.

Question: If you knew that someone was having difficulty reading, what would you do to help them?
Carmen: Help them sound out words.

Question: What would you like to improve about your reading?

Carmen: Read to my son, Dominic. Read a book in two or three days. My friends read beautiful books. I don’t read.

Carmen appeared characteristic of the kind of reader for whom retrospective miscue analysis might be a useful, consciousness-raising strategy. She believed she was no longer smart, and that she was a nonreader. She was convinced that skipping words is bad, that good readers (like her brothers) know all the words, and that if she could just sound out the words she could become a better reader.

Reading Miscue Inventory

During that first class session, Carmen was asked to read and retell a 1,400-word story entitled "Anita’s Gift." When her reading was subsequently analyzed using the Reading Miscue Inventory, it was revealed that Carmen utilized effective strategies as she read, despite an average of 12 miscues per hundred words. Eighty percent of her miscues produced syntactically acceptable sentences; 74% of her miscues maintained semantic acceptability; and 74% resulted in no meaning change. Her retelling score was 90.

It seemed appropriate to pilot retrospective miscue analysis procedures with this woman who was
convinced she was a failure at reading, although she in fact used many effective reading strategies. Carmen agreed to discuss her reading of "Anita's Gift" with the researcher, and a meeting was arranged in Carmen's home.

Following are several of the miscues which were focused upon during the RMA session held with Carmen. Worsnop's questions were used in order to provide the researcher with direct experience in how readers react to the questions. Because the researcher intended to help Carmen see that much of what she did while reading was effective and efficient, the miscues to be discussed were pre-selected. In the figures below are several examples of the miscues analyzed by Carmen during that initial session. Beneath each figure is a transcription of the dialogue between Carmen and the researcher about that particular miscue. An explanation of the miscue marking system is presented as Figure 4.1:
The little family was very quiet at breakfast and did not seem to be hungry.

Figure 4.2
Carmen’s Miscue No. 1

Researcher: What did you do there?
Carmen: I said "see."

Researcher: And then what did you do?
Carmen: I corrected it to "seem."

Researcher: Would "see" have made sense?
Carmen: [repeated sentence twice] No, wouldn't make any sense.

Researcher: Does it sound like language?
Carmen: Yes.
Researcher: How so?
Carmen: It's the same except for the "m."
Researcher: Was it corrected?
Carmen: Yes.
Researcher: Should it have been?
Carmen: Yes. I get angry when I do that; I just want to correct myself.

When asked "Does it sound like language?" Carmen focused on the letters in common between "see" and "seem," possibly concluding that a real word like "see" would sound like language. Her frustration with her reading difficulty is clearly apparent. She responds to the question, "Should it have been [corrected]?" by describing the anger she feels about making mistakes.

They walked in silence, and each step seemed to Pablo to be bringing them near something serious and he wished they were running the other way.

Figure 4.3
Carmen's Miscue No. 2

Researcher: What did you do there?
Carmen: Said "and."
Researcher: And then what?
Carmen: Said "the."
Researcher: Would it have made sense to say "and"?

Carmen: Yeah.

Researcher: Read it for me.

Carmen: [reads sentence twice] No. Wouldn't have worked at all.

Researcher: Did you correct it?

Carmen: Yeah.

Researcher: Should it have been?

Carmen: Yeah.

In response to the miscue in Figure 4.3, Carmen needed time to reprocess the sentence twice, following along on the typescript, before she could determine whether the miscue made sense. Once again, her self-correction strategy was positive because the miscue made no sense within the entire sentence. It was, however, a good prediction, and the RMA questions seemed to ignore this aspect of the reading process.

The two stood behind him as he pushed the cans this way and that and arranged blossoms in several of the cans.

Figure 4.4
Carmen's Miscue No. 3
Researcher: What about this one?
Carmen: "Blooms."
Researcher: And what are they?
Carmen: Flower blooms.
Researcher: [pointing to "blossoms"] Do you know what this word is?
Carmen: Blossoms.
Researcher: Are they any different to you?
Carmen: Now they are, but then they weren't.
Researcher: Tell me more about that? Then they weren't for what reason?
Carmen: I don't know ... blooms ...blossoms.
Researcher: What did he have in his can?
Carmen: Flowers. And that's the same thing.
Researcher: Does "blooms" make sense there?
Carmen: Yeah.

Researcher: I don't know about you, but I'm more likely to call things in a can "blooms"; to me, blossoms are on the trees in the springtime.
Researcher: Does it sound like language?
Carmen: Language like in books? Yeah.
Researcher: Did you correct it?
Carmen: No.
Researcher: Should you have?
Carmen: No.

Most importantly, Carmen acknowledges in this exchange that not all miscues need to be corrected, and this seemed like a major concession from a reader who is
angry at herself for the mistakes she makes. Also, it is now apparent that she is confused by the "Does it sound like language?" question.

This brought a fresh flood of tears from Anita.

Figure 4.5
Carmen's Miscue No. 4

Researcher: What did you first say?
Carmen: Fresh "fluud."
Researcher: Would that make sense?
Carmen: No.
Researcher: Sounds like nonsense, huh.

[At this point, Carmen's father entered her living room with Dominic, her son. He approached the table where we were working.]

Father: What's all this equipment?
Carmen: Remember when I first went down to the University and they taped me reading? Well, these are what I read and all the mistakes I made.

Father: Hope you didn't make many.
Carmen: No . . . but I corrected myself on some of them. Some of them made sense and some of they didn't. [Resume discussion about miscue.]

Researcher: So, did you correct this one?
Carmen: Yeah. I don't know what "fluud" is.
Researcher: What you finally said, was "this brought a fresh flood of trees from Antia." Is "trees" something that would make sense?

Carmen: No.

Researcher: Does it sound like language?

Carmen: Yes.

Researcher: Did you correct it?

Carmen: No.

Researcher: Should you have?

Carmen: Yes.

Researcher: How would you rate this miscue?

Carmen: [about fluud] That one was good because I corrected it. [about trees] That one was terrible.

Researcher: Does it look like what was on the page?

Carmen: Yeah.

Researcher: Does it sound like what was on the page?

Carmen: Yeah.

Researcher: What do you make of that, anything?

Carmen: I don't know why. I'm a person who switches letters around to make it fit. [Carmen looks intently at the typescript.]

Carmen: But isn't it ... it's "Anita" ... It was never "Auntia" ... I don't know why I was doing that.

Researcher: Tell me about that.

Carmen: I don't know. I mean when you first opened the book I thought, it's "Anita." And I started hearing me say "Auntia." I was trying to pronounce the whole thing ...
Researcher: One of the things you did is call her "Auntie" all through this part. And then later on in the story you begin to decide her name can't be "Auntie" and you begin to call her "Auntia." Why did you stop calling her "Auntie"? Do you remember?

Carmen: I think I thought she was an aunt, maybe, to begin with. But then she started being real little--so she can't be an aunt. So I guess I made up a name. Now I'm realizing it's "Anita."

This discussion has several important qualities. First, the insidious nature of the "text reproduction" model of the reading process is confirmed when Carmen's father tells her he hopes she hasn't made many mistakes in her reading. Carmen's rejoinder, an explanation that some of her miscues made sense and some did not, hints at the consciousness-raising power of retrospective miscue analysis.

A second important point is highlighted in this discussion. RMA procedures have been targeted for use with older children and adults, partly because of the introspective requirements. Carmen's comment, "I'm a person who switches letters around to make it fit," reveals her capacity for introspection and the extent to which she has conscious awareness about her reading process. It is when these consciously held beliefs about the reading process are inaccurate that progress in reading may be hindered, and the RMA technique is
clearly designed to assist readers in redirecting their misconceptions about the reading process.

Finally, Carmen in this discussion shares an example of the "text as teacher" concept: During the course of reading a whole text, words or concepts that are difficult or confusing in the beginning are often resolved as the reader interacts with the text and, through it, transacts with the writer. When Carmen explains why she moved from calling the character "Auntie" ("I thought she was an aunt, maybe, to begin with") to "Auntia" ("But then she started being real little--so she can’t be an aunt"), it seems clear that the text itself has "taught" her that "Auntie" was probably inappropriate. It is interesting to note that some three weeks after the initial reading, Carmen suddenly realized the name was "Anita" all along. Has she "learned" the word "Anita" in the previous month? Undoubtedly not, which means that she probably "knew" the word in some sense at the time of the reading. Why, then, did she not say "Anita"? And, perhaps more perplexing, what else did she "know" but not demonstrate? What readers are able to summon and orally demonstrate as "knowledge" in reading a particular text is indeed a very complex issue--one which is often unrecognized by teachers.
In the following discussion, Carmen was asked to reflect upon the session in general and on some RMA questions in particular. Especially illuminating are her remarks about the question, "Does it sound like language?":

Researcher: Tell me what you think of this [RMA session]?

Carmen: I think it's neat, the system you have.

Researcher: What didn’t work about it?

Carmen: What I didn’t understand really, was how to tell whether it affected my meaning. But I understood better as we went along... What else... I'll be critical.

Researcher: Does it make you uncomfortable to listen to yourself on tape?

Carmen: Not really, just at first.

Researcher: The other thing I'm trying to think about is whether these questions I was asking you work fairly well. It seemed like you and I were on the same wavelength when I asked whether the miscues made sense. But what about this question "Does it sound like language"?

Carmen: Yeah. That's what I was trying to tell you. I didn’t know what you meant. It doesn’t sound like a different language... but you know what I'm thinking now is "Does it make sense in the sentence?" Is that what you were saying? Or "Is that what people usually say?"

Researcher: So it could mean "Does it sound like a foreign language" or "Does it sound like something someone would say in that sentence?" Sounds like it has been pretty confusing. Maybe it's not a good question.
Carmen: Because, if you ask kids or other people, minorities especially, they aren't going to understand. They do speak another language, and when you ask whether it sounds like language they won't know what you're talking about.

Researcher: The question kind of assumes everybody speaks one language.

Carmen: Yeah and that's not right.

Evaluating RMA Procedures

The following preliminary conclusions were made as a result of observing Carmen's reactions to RMA used as an instructional strategy:

1. The procedure seemed highly motivating when conducted in a one-to-one situation while having a reader listen to her own previous reading. Carmen appeared enthusiastic throughout the session, and commented at the end that she had enjoyed the process.

2. The fact that the reading had taken place three weeks prior to the RMA session seemed to have little adverse effect. Carmen accurately remembered details of the story and related some very specific information about what she was thinking when she read it. The most interesting example was when, in the midst of discussing another miscue, she spontaneously discussed how she had had difficulty with the name "Anita," and how she had resolved that difficulty.

3. The question "Does the miscue sound like language?" is not only vague, but to Carmen it had
offensive overtones, suggesting, as it did, that only one language exists in the world. Emphasis on the syntactic system of language seemed to flow naturally from discussions about making sense. It appeared that Carmen was reluctant to separate semantics and syntax when discussing whether a given miscue made sense.

4. While perhaps failing to give total ownership of the RMA process to Carmen, the fact that the researcher pre-selected miscues to be analyzed had the following benefits:

-- Twenty-five miscues were chosen throughout the text, the majority of which were indicative of Carmen's strength in reading strategies. Had the first twenty-five miscues she made been chosen, lower quality miscues would have been emphasized.

-- The pre-selection of miscues resulted in the discussion of the following high-quality miscue that Carmen had to hear three times before she could be convinced a miscue had been made:

It was a florist's shop all right.

Figure 4.6
Carmen's Miscue No. 5
Had she been listening to herself and reading along with the text, it is likely she would not have "heard" this miscue and stopped the tape-recorder for discussion. Often, the highest quality miscues are the most difficult to discern.

With the assistance of Worsnop's secondary school students and Carmen, the following modifications to retrospective miscue analysis procedures were made by the researcher for use in the two case studies presented in Chapters 5 and 6.

The Timing of Sessions

RMA sessions were held one to two weeks after the reading of a particular text. Because of demands on the time of both the readers and the researcher, meetings were not always scheduled on a weekly basis, although they occurred at least every two weeks.

The Selection of Texts

The majority of texts read by the two women in this study were self-selected. They ranged in difficulty from about third grade level through college level according to the Fry readability formula. The researcher was responsible for selecting one third grade text, one fifth grade text (read twice), and one sixth grade text. All seventh, ninth, and college level texts were selected by the readers.
The Selection of Miscues

The researcher selected the miscues to be analyzed during those sessions, and a form for cataloging the miscues to be discussed was developed. A sample of this form is shown as Figure 4.7 on the following page; a blank form is included as Appendix F. A description of how the form was used is provided on page 88.
**RMA SESSION ORGANIZER**

Reader: **Gloria**

Date: **December 27, 1985**

Text: **The Boy and the North Wind**

<table>
<thead>
<tr>
<th>Tape-Recorder Counter Number</th>
<th>Miscue</th>
<th>+/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>076</td>
<td>your our</td>
<td>+</td>
</tr>
<tr>
<td>129</td>
<td>when</td>
<td>+</td>
</tr>
<tr>
<td>183</td>
<td>place</td>
<td>-</td>
</tr>
<tr>
<td>199</td>
<td>any</td>
<td>+</td>
</tr>
<tr>
<td>251</td>
<td>many</td>
<td>+</td>
</tr>
<tr>
<td>287</td>
<td>serve/a fine</td>
<td>+</td>
</tr>
</tbody>
</table>

Notes:

**Figure 4.7**

RMA Session Organizer
The "+/-" column in the RMA Session Organizer was used to indicate the extent to which a given miscue reflected a reader's strength in the reading process. The "Notes" section included, as in Figure 4.7, a sentence or two about the focus of attention for a particular session.

The researcher selected for discussion those miscues which showed effective use of strategies, as well as miscues which showed a variety of ineffective strategies. Because confidence-building was critical to the success of RMA as an instructional tool, the initial sessions tended to focus on encouraging readers to revalue those strategies which are effective. However, as sessions progressed with the first case study, it seemed appropriate to select miscues around some theme; for example, analyzing the contexts where "then" gets substituted for "when"; or comparing the quality of insertions and omissions throughout a text. It was perhaps in these RMA sessions that the technique worked most like a "strategy lesson" (Y. Goodman and Burke 1980).

The RMA Questions

Carmen convinced the researcher that the question "Does it sound like language?" has limited usefulness, and it was eliminated. Both the readers in this study, along with Carmen, responded to the question
"Does it make sense?" with both syntax and semantics in mind. They were not likely to judge a miscue as one which "made sense" if it did not also "sound right."

Two other questions were added to the routine. The first, "Why do you think you made this miscue?" was designed to raise the strategies of selecting and predicting to a conscious level. Examples presented in the case studies (Chapters 5 and 6) will document the effectiveness of this question. Also, the question "Did that miscue affect your understanding of the text?" was asked to encourage readers to evaluate the extent to which they thought the miscue was detrimental to their comprehension of the text. This question encouraged Carmen to differentiate between miscues which involved major events or characters, and miscues which dealt with more minor aspects of the text. Additionally, it prompted readers to reflect on redundant features of text. Often, they would assert that a particular miscue had no effect on meaning when the next sentence (which they read without miscues) was a restatement or clarification.

The RMA in Practice

The RMA procedures described above were certainly the backbone of every RMA session conducted during the course of this research. It is important to
note, however, the ways in which RMA in actual practice deviated from the procedures outlined and the reasons for those deviations.

In practice, the list of questions served as a guideline, facilitating the reader and the researcher in discussing miscues. But the questions were not always asked in the precise order in which they are listed in Chapter 3 ("Methodology"). As the readers became familiar with the questioning procedure, they rather quickly internalized the questions, and took control, to some extent, of questioning themselves about their miscues. The RMA discussions themselves often led both reader and researcher to consider various aspects of the text and the reading process, in ways which could not have been predicted by the list of questions. Also, the question "Does the miscue look like the text? Sound like the text?" was infrequently asked, since it had the potential of overemphasizing the graphophonic cueing system.

The extent of teacher-researcher direction in this instructional procedure has already been alluded to above. The teacher-researcher, in this instance, pre-selected the miscues which were to be discussed, and did so often on the basis of some theme which she deemed appropriate to explore with the reader. In addition, the researcher missed few "critical moments" to provide
incidental teaching about the subject of reading. In describing the relationship between learning and development, Vygotsky (1978) theorizes the existence of a zone of proximal development, described as:

. . . the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (p. 86).

In Vygotsky's scheme, then, the actual developmental level in reading is revealed in an actual reading task performed at a given point in time, and miscue analysis is one way of describing that level of development. The level of potential development might be characterized by effective and efficient reading, following some form of problem solving under adult guidance or in collaboration with more capable peers.

Wertsch (1984) has attempted to expand and clarify Vygotsky's zone of proximal development construct. In particular, he has suggested an account of what constitutes "problem solving under adult guidance or in collaboration with more capable peers." Wertsch states that "a fundamental characteristic of such growth [in the zone of proximal development] is what one might term situation redefinition--something that involves giving up a previous situation definition in favor of a qualitatively new one" (p. 11, emphasis
his). Extending this notion to reading instruction, then, suggests that a zone of proximal development would be created by instruction which involves readers in redefining a situation—perhaps the reader's own model of the reading process. Perhaps the use of retrospective miscue analysis as a problem-solving activity has created a zone of proximal development where learning can support development, and the potential developmental level can become the actual developmental level.

The researcher identified a zone of proximal development by engaging the readers in discussions about what educators know about reading, about good and poor readers, and about teaching reading. Those discussions were always precipitated by comments made by the readers as they evaluated their own reading, speculated about why they read in the ways they do, and judged the extent to which the reading process was working for them. Clearly, though, no attempt was made by the researcher to present herself as a "disinterested observer."

Rather, she shared her knowledge and beliefs in much the same way other professionals share their knowledge and beliefs with their clients. This issue is further discussed in Chapter 7.
Recording RMA Data

It also became clear through the course of this study that some method was needed for synthesizing and recording the information gathered in the RMA sessions. As the readers evaluated their miscues, their models gradually shifted from those which placed "text reproduction" at a premium, to those which recognized the value of "meaning construction." The following form was developed to maintain anecdotal records of the readers' responses to the RMA technique. Miscues are noted briefly, and for each question asked about a particular miscue, remarks are asterisked according to whether they focus on the graphophonetic system of language or on the semantic system of language. A blank form is included as Appendix G.
RMA RESPONSE FORM

SESSION 4
Session focus, if any Efficiency - Miscues She does / doesn't correct

READER Gloria

READER FOCUSES ON:
RMA QUESTIONS: *Reproducing Text **Constructing Meaning

1. Does miscue make sense?

(each miscue is listed) (reader comments are quoted)

your xx Being a mother I'd say "your"
your

our

when

3. Why did reader miscue?

(as above)

4. Miscue affect understanding?

(as above)

NOTES

______________________________________________________________

______________________________________________________________

Figure 4.8
RMA Response Form
A form was completed when each RMA tape-recorded session was reviewed. The form also contains a section for NOTES, where it is possible to record impressions about the RMA sessions and the readers themselves.

Appendix H contains a full transcript of the RMA session conducted with Gloria based on her reading of "The Boy and the North Wind." The first two pages of the text have been reproduced as Appendix I. For the sake of clarity, the text has been marked only with the miscues discussed during the RMA session. Following is a general lesson plan for conducting an RMA session.

**An RMA Lesson Plan**

Prior to RMA Session

1. Meet with reader to tape-record reading of the text selected for miscue analysis.
2. Use Reading Miscue Inventory to analyze the reading.
3. Review miscues, noting any patterns which exist. Select between 10-15 miscues for discussion during the RMA session. Some guidelines for selecting miscues:

<table>
<thead>
<tr>
<th>Reader Characteristics</th>
<th>Suggested Miscues</th>
</tr>
</thead>
<tbody>
<tr>
<td>-- low self-confidence</td>
<td>-- select miscues that are fully acceptable semantically and syntactically, and uncorrected;</td>
</tr>
<tr>
<td></td>
<td>-- select miscues that are unacceptable and corrected;</td>
</tr>
</tbody>
</table>
-- holds a text-reproduction model of the reading process

-- seldom attempts self-correction

-- makes non-word substitutions for words in reader's oral vocabulary

-- consistently corrects miscues that are syntactically and semantically acceptable (over correction)

-- needs to focus on making sense

-- is reading efficiently

-- is focusing on making sense

-- select miscues that are acceptable and have little or no graphophonic similarity

-- select miscues that are acceptable and contain insertions or omissions

-- select miscues that demonstrate prediction, disconfirmation, and self-correction; contrast with miscues where self-correction is not attempted

-- select miscues where persistence resulted in semantically and syntactically acceptable miscues; contrast with non-word substitutions

-- select fully acceptable miscues where correction is unnecessary

-- contrast miscues that do/don't make sense

-- select miscues that highlight efficient strategies

-- select miscues that highlight manipulation of syntax in insertions and omissions
-- makes lower quality miscues in beginnings of text than
in middles or ends

-- select miscues that highlight the increasing quality of miscues as text progresses

4. Enter miscue selections on the RMA Session Organizer.

Conduct RMA Session

5. Approximately one week later, meet with reader to conduct RMA session, using these questions as a guideline for discussing each miscue:

1. Does the miscue make sense?

2.a. Was the miscue corrected? b. Should it have been?

(If the answer to Questions 1 and 2a was "No," then ask):

3. Does the miscue look like what was on the page?

4. Does the miscue sound like what was on the page?

(For all miscues, ask):

5. Why do you think you made this miscue?

6. Did that miscue affect your understanding of the text?

Tape-record the RMA session. Note any comments that have particular interest, e.g., if the reader says "Is that really me reading on that tape? I can't believe it!"
6. Ask the reader to read another selection for use in the next RMA session, if one is to be held.

After the RMA Session

7. Review the tape-recording of the RMA session to make anecdotal remarks about the reader’s responses, using the RMA Response Form. The notes will reflect the extent to which the reader is focusing on text reproduction or meaning construction, and will serve as an ongoing record of the reader’s insights into the reading process.
CHAPTER 5

THE DEVELOPMENT AND REEVALUATION OF GLORIA

This chapter will present qualitative and quantitative analyses in the use of retrospective miscue analysis as an instructional strategy with one adult reader. It includes the quantitative presentation of miscue analysis data and the descriptions of interviews and retrospective miscue analysis sessions. The data is presented as a case study, structured around the research questions outlined in Chapter 3.

Introduction

Forty-one year old Gloria was referred for this study by the chair of the University of Nevada-Reno Reading Department, Dr. Shane Templeton. On a clear, crisp October day in 1985, she arrived at the researcher's home for an initial interview and recorded reading. Dressed in an elegant leather skirt and silk blouse, she appeared by outward signs to be unlike the stereotypical adult illiterate, one who has suffered social and financial setbacks as a result of an inability to read well. In fact, at the conclusion of the session she drove away in a Mercedes-Benz sportscar.
Perhaps the apparent juxtaposition between Gloria's material accomplishments and her low self-esteem is best revealed in the self-descriptions she offered in that initial meeting:

. . . So I went down to the ice rink and from about age 10 or 11 onwards that was my life really [ice skating]. I didn’t pay attention to school at all. In fact, I was quite naughty. I used to miss classes to go to the ice rink. And in the end my father had to send me to private school so I had time off to go skating. I realized, whether right or wrong, I was just getting along in school.

. . . By [age 20] what I wanted to do was to be respected, and be the head of the professionals. I actually did that. I was head school director for about 7 years. Then I went to Australia, and was a school director there. How was I able to overcome my handicap of reading and writing? I used to just find somebody that would do my memos and things like that. My speech wasn’t too bad. If I had to go and give a lecture about skating, I would write it down and learn it as if it were a play. Of course, I knew what I was talking about, so it was easier. I have no fear of standing up in front of people and talking. . . . That’s why a lot of people think I’m more capable than I really am.

There is a sense in which her self-deprecating comments reveal her perception that learning to read well was the "right" thing to do, and it was only through "cheating" and being "naughty" that she circumvented the system and achieved success in her profession. Because her profession was based on a physical talent (ice skating) which has diminished, she is now faced with finding a new career. And she
believes that her inability to read or write well will haunt her in those efforts:

. . . . That's one of the reasons why I don't go [to apply for jobs]. Because you have to fill out that form. That would be it. I would just walk out. I just wouldn't do it.

Her need for the personal satisfaction she associates with working hard is combined with the need for resuming the financial independence she once enjoyed. She feels trapped by her financial dependence upon the airline pilot with whom she lives, and she is certain that her literacy skills will limit her in asserting her independence:

. . . . I've got a boyfriend who pushes me. He pushes me a little too hard, and I generally break down. My nerves aren't too good, with this reading and writing thing. . . . . It is really my boyfriend who is pushing me, and he said I don't have to worry about money. But I've always worked. Even at 12 years old I was skating, and I've always worked. It's going to be very hard for me not to want to work. . . . I'm having difficulty with my boyfriend, and I feel lost because I'm out of work, because I've always been so independent.

I like children, school children. I wouldn't mind being a kindergarten teacher. I know there's not a whole lot of money there. To me money has never been a big thing. I've always had to work and make a living. I'm not going to be a millionaire. For some people, that's their goal; it's not my goal. My goal is to live somewhere nice and travel. Kids. I love to make kids happy. I think that is what I miss in teaching.

Gloria is perhaps characteristic of many adults who had less than satisfactory schooling experiences.
She believes that she has had dyslexia, and that she was in some sense the victim of educators who were ignorant of her disease and who lacked the appropriate means for curing her:

... My mother tried to get me to read and write, but they didn't know about this dyslexia. ... Mainly, my dyslexia was with my writing. Somebody would say something and I would put it down wrong, mix up letters. I would get them all backwards. ... I think I had dyslexia very bad [but] I think I have conquered it. I don't write things backwards so much now. I think that if I'd worked with it earlier, then I don't think I'd have this particular problem. ... Don't forget, this was going back a long time when whatever I had, whether it was dyslexia or learning disabilities, they didn't really have. I had always appeared to be intelligent.

Perhaps also typical is her inclination ultimately to absolve others of the responsibility for her failures, while denigrating her own methods for surviving in a literate society:

[In school] it was easier to read plays. I found that not too bad. If we did something like Shakespeare, you'd just have to read a little bit out loud. Which wasn't bad. Then I would get the story by listening to all the other pieces. I suppose I've worked around it. I've been cheating all my life. Well, I know I've been cheating all my life.

Following Gloria's introductory remarks, the researcher explained both the nature of this research and the commitment that would be required of Gloria if she chose to participate as a research subject. Gloria agreed to participate, and she was subsequently
interviewed regarding her perceptions of the reading process. This interview aids in answering Research Question No. 1.
Research Question No. 1.
How do adults who contact a college remedial reading center for assistance describe the reading process and their strengths and weaknesses as readers?

During the first of Gloria's eleven sessions, an interview was conducted to probe her specific attitudes about the reading process and her ability to read. The Burke Interview Modified for Older Readers (BIMOR) (Appendix B) was used to elicit the following information. The BIMOR contains 14 questions which collectively probe Gloria's sense of the contrast between "good" reading strategies and the strategies she uses. It also probes the instructional techniques she believes will assist her in becoming a better reader.

Gloria's Strategies

The following BIMOR responses characterize Gloria's perceptions of the reading strategies she employs:

Question: When you are reading and you come to something that gives you trouble, what do you do?

Gloria: I try and work it out, then I just carry on and see whether that word will go into the next sentence. If I don't understand it I just close the book up. I don't want to read on if I don't think I can understand it. Now I would try and get a dictionary out, if I had one. But not very often, I must admit.

Although Gloria appears to utilize the kind of read-on strategy which would be compatible with
psycholinguistic theory, it is clear that its usefulness is limited for her. She has not internalized the notion that seldom is any one word critical to the understanding of text—in fact, she would rather "close the book up" than continue reading when something is problematic:

. . . Like I could try to read out loud, which I do. I try to look up the words in the dictionary, but sometimes I still can't get it. The whole idea of what I'm reading is wrong if I get one word wrong.

She also appears to have decided that looking words up in the dictionary is the proper strategy to use when encountering something difficult, although she admits she seldom uses this strategy. Her reasons for wanting to improve her reading are suggested in the following responses:

Question: Is there anything you would like to change about your reading?

Gloria: To understand what I read. Just for simple everyday life. I don't really want to take three days to understand what I am reading. I'd really like to sit down in 10-15 minutes, or maybe a half hour, read what I'd like to read, then remember it. . . . Or read a book even.

Researcher: You haven't done that in awhile?

Gloria: I haven't done one ever. Oh, I did read Jonathan Livingston Seagull. It was short. I think it took me two weeks. I didn't really understand it at the time; I guess I should reread it.

Question: Describe yourself as a reader. What kind of reader are you?
Gloria: I'm very slow as a reader, even when I read by myself, inwardly. I would say I'm a nonreader.

Researcher: You consider yourself a nonreader?

Gloria: Nonreader. Yes. Even when I read the paper, which I hate reading because it gets me all dirty. I can read. I can read things if I like them. I like skating, and even with my skating magazines I find it quite hard to finish the paragraph I'm reading. I would rather skip it and make up my own thing. That's because I know what they are talking about. But I would really like to sit down and read it. Maybe I would learn more, especially names.

Gloria believes she is a "nonreader" although she admits she reads the newspaper and "can read" things she finds interesting, like the skating magazines she occasionally purchases. It is not likely that she is a nonreader; rather, she doesn't believe she reads in either the style or volume that characterizes successful readers.

Reading Strategies of Good Readers

According to Gloria, good readers consult dictionaries when words are difficult, but what else characterizes their reading?

Question: Who is a good reader that you know?

Gloria: My second husband was a good reader. He used to read to me in bed.

Question: What made him a good reader?

Gloria: He made it interesting. I could understand what he was reading, and it made the story interesting. I don't really know what made him a good reader. My first husband read about six to seven books a week, but he wasn't a good reader out loud.
Researcher: Your first husband read more than your second one, but you felt the second was a better reader?

Gloria: Yes, I thought the second one was to me a better reader because he used to read to me and he could express more in his voice. The other one used to see how fast he could read. I suppose he was a better reader, but not out loud.

Gloria apparently perceives a dichotomy between what she would characterize as good reading, and what she suspects others (perhaps the researcher, specifically) would characterize as good reading. Note that in her view, good readers are able to read out loud with expression and are able to make those listening understand what they’re reading—qualities exhibited by her second husband. Yet she acknowledges that the volume of reading done by her first husband ("six to seven books a week") may make him the better reader. It has been well documented that when teachers ask follow-up questions after a student has given an answer, the student usually assumes something was incorrect about her response. Perhaps this phenomenon is at work in this situation. The researcher, in asking Gloria to explain why she believed the husband who read more was not the better reader, may have prompted Gloria to "suppose he was a better reader." She has rather easily capitulated her opinion of what good reading is (reading
with expression and understanding), in favor of what she thinks the reading "authority" (the researcher, in this case) will believe constitutes good reading: speed and volume of reading.

Gloria's notions about the strategies good readers use are indicated in the following response:

Question: What did your second husband do when he came to something he didn't know?

Gloria: I don't really know what he would have done. He wouldn't have gone for the dictionary. Mike [the first husband who read six to seven books a week] would have done that, I think. I don't think he [the second husband] didn't know anything, but then he might have. I don't know. I never noticed him to not know anything.

It was Gloria's second husband who, in her view, was the "better" reader because he read with understanding and expression in his voice. She "never noticed him to not know anything"; is it possible that he was someone who read on when something was problematic, never giving outward signs that he had the occasional difficulties that all readers do? Yet she thinks that her first husband, the volume reader, would have consulted a dictionary if he didn't understanding something he was reading. In Gloria's mind, perhaps, good readers either know it all or consult a dictionary; they are not likely to use her inferior strategies of reading on or closing the book.
Gloria's Instructional Model

Recognizing the differences between her strategies and those of good readers, what kind of instructional techniques does Gloria believe would be helpful to poor readers? How might that be contrasted with the instruction she has received thus far in her life?

Question: How did you learn how to read?

Gloria: We learned with the ABCs. Then I missed a lot of that because I was ill. I had whooping cough, so I missed quite a lot when I was six to seven years old. Then when we moved I went to another school and I couldn't pronounce "k" or whatever they do. I didn't know about the syllables or nouns or anything like that. Well I did but I didn't understand them. Then I think at school they had the new formula way you could look at a word and guess it instead of trying to spell it out. I think that's how I learned to read, by memorizing the words that I knew instead of trying to spell it out.

It seems that Gloria's early instruction was word-oriented, perhaps an eclectic methodology, as opposed to a phonics-oriented approach where students would "spell it out." But how much confidence does she have in this methodology? Would Gloria teach others in the way she was taught?

Question: If you knew somebody who was having trouble reading, what would you do to help that person? What would you recommend?
Gloria: I would let them read, and I would point out things. You know, "What does that word say?" All the time. Like you do when you're teaching a child. Say the word over and over again; maybe get them to write it down. Maybe just sounding it out and saying it to you. I think that's all.

Question: What would a teacher do to help that person?

Gloria: I don't think I had very good teachers, actually. . . . Don't forget this was going back a long time when whatever I had, whether it was dyslexia or learning disabilities, they didn't really have. I had always appeared to be intelligent.

Not surprisingly, Gloria would try to help readers in trouble in much the same way her teachers did, although she would add the sounding out component to the look-say-repeat technique. She generously excuses her teachers for failing to help her—after all, "back then" dyslexia and learning disabilities were not recognized or understood.

Discussion

The dichotomy between what Gloria does and what she thinks she should be doing has been revealed in several ways: Good readers either know every word or look words up in the dictionary; Gloria tries to read on, and when that is unsuccessful, she stops reading. Good readers probably read a great deal of material; Gloria recalls having read only one book in her lifetime. Good oral readers make whatever they are
reading interesting to the listener; Gloria lacks the confidence to enjoy reading aloud.

It is clear from her responses that Gloria initially perceived herself to be an inadequate reader— a "nonreader" in fact, who has spent a lifetime "cheating." These attitudes suggested she might be an appropriate candidate for a technique designed to rebuild readers' attitudes.

During the next portion of the session, she was asked to read "The Wreck of the Zephyr," in order to determine whether she exhibited the kind of ineffective reading strategies which retrospective miscue analysis was designed to improve. Through this procedure, Research Question No. 2 can be explored.
Research Question No. 2:
What are those adults' strengths and weaknesses in reading as revealed through analysis using the Reading Miscue Inventory?

During Gloria's first meeting with the researcher, she was asked to read "The Wreck of the Zephyr." The reading was subsequently analyzed using the Reading Miscue Inventory to profile the strengths and weaknesses exhibited during Gloria's reading.

"Zephyr" is a 1,270-word story, with a 5th grade reading level according to the Fry readability formula. Gloria made 124 miscues during her reading of this text, a rate of 9.76 miscues per hundred words. Following is an analysis of Gloria's miscues.

Graphic and Sound Similarity

Gloria's miscues were analyzed to determine the extent to which they looked and sounded like the text. For graphic similarity, 61% of her miscues were highly similar to the text (that is, more than half of each word contained the same letters); and 18% had "some" similarity (less than half of the miscue was similar to the text); and 21% were not at all similar (no letters in common). Sound similarity was also analyzed, and 60% of Gloria's miscues sounded highly similar to the text; 22% were somewhat similar; and 18% bore no sound similarity.
Syntactic Acceptability

Gloria's miscues were analyzed to determine the extent to which she was producing syntactic structures that were acceptable within the text. Findings include:

Fifty percent of Gloria's miscues were fully acceptable syntactically. Examples of these miscues include:

\[ \text{Waves carried it up during a storm.} \]

Figure 5.1
Gloria's Miscue No. 1

Forty percent of miscues were partially syntactically acceptable; that is, they were acceptable with only part of the sentence, or acceptable within the sentence but not within the entire text. For example:

\[ \text{There's the only sailor who can go out on a day like this.} \]

Figure 5.2
Gloria's Miscue No. 2

Ten percent of miscues were unacceptable. Examples include:
When he was done with his song, the sailor sent the boy to bed.

Figure 5.3
Gloria’s Miscue No. 3

Semantic Acceptability

The extent to which Gloria was producing miscues that made sense within the text is discussed below.

Twenty-six percent of Gloria’s miscues were acceptable at the sentence level and within the entire context of the story. For example:

Figure 5.4
Gloria’s Miscue No. 4

The sky grew black and the waves rose up like mountains.

Fifty-six percent of miscues were partially acceptable; that is, they resulted in a semantically acceptable sentence (or portion thereof), but were unacceptable when considered within the entire text:
Surely the men of the island never dared fly so high.

Figure 5.5
Gloria's Miscue No. 5

Eighteen percent of miscues were unacceptable, including this miscue:

One morning, under an ominous sky, he prepared to take his boat, the Zephyr, out to sea.

Figure 5.6
Gloria's Miscue No. 6

Meaning Change

Meaning change is analyzed only when miscues result in fully acceptable syntactic and semantic structures. For the 32 miscues that were fully acceptable, 20 resulted in no meaning change, including the following miscue:
There's the only sailor who can go out on a day like this.

Figure 5.7
Gloria's Miscue No. 7

Twelve resulted in change to minor characters or events, for example:

But the boy said he would not leave until he learned to sail above the waves.

Figure 5.8
Gloria's Miscue No. 8

None of Gloria's miscues resulted in changes to major events or characters.

Correction

Gloria successfully self-corrected 44% of her miscues, while making no attempt to correct 42%. Attempts were made to self-correct an additional 14% of her miscues, but the attempts were unsuccessful.
Meaning Construction

The pattern of analysis across three categories (semantic acceptability, meaning change, and correction) was then analyzed using RMI procedures to determine the influence of Gloria's miscues on comprehension. Findings indicate that 55% of her miscues resulted in "no loss" of comprehension; examples of these kinds of miscues include:

Sometimes the sailor took the tiller, and the boat would magically begin to lift out of the water.

Figure 5.9
Gloria's Miscue No. 9

Eleven percent suggest "partial loss" of comprehension, for example:

But the boy said he would not leave until he learned to sail above the waves.

Figure 5.10
Gloria's Miscue No. 10
Thirty-four percent of her miscues were likely to result in a "loss" of comprehension. An example follows:

\begin{quote}
\textit{He took the boy to his house, and the sailor's wife fed them oyster stew.}
\end{quote}

\textbf{Figure 5.11}
Gloria's Miscue No. 11

\textbf{Grammatical Relationships}

The patterns among the categories of syntactic acceptability, semantic acceptability, and correction reveal the extent to which Gloria was able to maintain and control the grammatical relationships contained in the text. Fifty-six percent of her miscues showed "strength" in controlling grammatical relationships, for example:

\begin{quote}
\textit{He waited until the sailor and his wife were asleep, then he quietly dressed and went to the harbor.}
\end{quote}

\textbf{Figure 5.12}
Gloria's Miscue No. 12
"Partial strength" was indicated in 16% of Gloria's miscues. Instances include the following kind of miscue:

He steered for the open sea, but the trees at the cliff's edge stood between him and the water.

Figure 5.13
Gloria's Miscue No. 13

Weakness in controlling grammatical relationships was evident in 21% of Gloria's miscues, including the following:

When the clouds blocked the boy's view of the stars, he trimmed the sails and climbed higher.

Figure 5.14
Gloria's Miscue No. 14

Gloria exhibited a tendency to "over correct" 7% of her miscues. For example:
As he drew closer to land, an idea took hold of him: He would sail over the village and ring the Zephyr's bell.

Figure 5.15
Gloria's Miscue No. 15

Discussion

The above findings indicate that Gloria's strengths at the outset of this study can be summarized as follows:

1. She self-initiated her contact with the researcher, and she appeared anxious to improve her reading.
2. The length and depth of her responses to interview questions revealed an interest in and ability to reflect upon the reading process as an abstract phenomenon.
3. Her reading strategies showed evidence that she is able to maintain syntactic and semantic acceptability in over 50% of her miscues.
4. She provided a thorough retelling of "Zephyr," indicating that she was able to comprehend the material she read.

Her weaknesses appeared to be in the following areas:
1. Her self-confidence relative to her reading ability was low.
2. Her reading strategies exhibited a tendency to rely heavily on graphophonic cues, and she seemed to lack the confidence to rely on syntactic and semantic cues.

At the conclusion of the first meeting between Gloria and the researcher, Gloria reaffirmed her decision to become a research subject for this study, and she met with the researcher frequently for the next four months.
Research Question No. 3:
What changes occur in the adults’ perceptions and processes described in questions 1 and 2 over the period of this research?

Three sources of data will be used in answering this question. First, documentation of Gloria’s shifts from a text-reproduction model of the reading process to a meaning-construction model of the reading process will be provided, based on data from the tape-recorded retrospective miscue analysis sessions. Second, the changes in Gloria’s perceptions about the reading process and her strengths and weaknesses will be discussed based on data gathered during the Closing Interview. Third, the changes in the strategies she utilizes in reading will be discussed through a presentation of the miscue analysis data gathered throughout the course of the study.

Changes in Perceptions About the Reading Process

The Retrospective Miscue Analysis Sessions

The development of Gloria’s model of the reading process can be traced through a description of her responses during the retrospective miscue analysis sessions. Each retrospective miscue analysis session was tape recorded, and Gloria’s responses to the RMA questions were noted on the form described in Chapter 4 (Figure 4.8). Gloria’s first and second RMA sessions
will be described in detail, since they confirm the model of the reading process Gloria held at the outset of the study. Her word-oriented, text-reproduction emphasis began to shift to a meaning focus in RMA Session No. 3, and that trend was firmly in place during the final five RMA sessions.

**RMA Session No. 1.** Gloria's first RMA session was conducted approximately three weeks after she read "The Wreck of the Zephyr." Following are responses typical of Gloria's first answers to the RMA question "Does the miscue make sense?:

![](image)

**Figure 5.16**
Gloria's Miscue No. 16

Gloria: [About the substitution of "even" for "ever"] I make that mistake quite a lot. Those simple words I tried to memorize as a kid instead of sounding it out.

Gloria: [About the substitution of "the" for "that"] Doesn't make sense. I wasn't concentrating.
One morning, under an ominous sky, he prepared to take his boat, the Zephyr, out to sea.

Figure 5.17
Gloria's Miscue No. 17

Gloria: I didn't know the word anyway, but I can still get the gist. I need to be aware of words I don't know.

It was surrounded by a treacherous reef.

Figure 5.18
Gloria's Miscue No. 18

Gloria: I would have to spell it out. [She found "each" in "treacherous" and tried to pronounce "treacherous" as though the "each" sounded like the word she knew.]

He took the boy to his house, and the sailor's wife fed them oyster stew.

Figure 5.19
Gloria's Miscue No. 19

Gloria: I completely reversed it. That's what I do. I didn't read it word for word. I can handle those words.
He walked for a long time and was surprised that he didn't recognize the shoreline.

Figure 5.20
Gloria's Miscue No. 20
Gloria: Not really. You don't say sealine.

Then, suddenly, the boy felt the Zephyr begin to shake.

Figure 5.21
Gloria's Miscue No. 21
Gloria: Makes sense either way. You could write it either way.

At this point in the study, Gloria apparently believed she needed to concentrate more effectively on "simple" words, sound-out or spell-out the more difficult words, and try harder to read "word-for-word." Yet through her own example she proved that the method of pronouncing the little words (e.g., "each") within the big words (e.g., "treacherous") is unreliable. She does need to concentrate more effectively, though her efforts need to be directed toward concentrating on meaning, not on simple words.
Several of Gloria's comments, however, point to metalinguistic strategies which could be strengthened through the RMA process. For example, she recognized that even though she substituted a non-word for "ominous" she was able to understand the story. Also, her remark that "you don't say sealine" demonstrated she is aware that written language should sound like spoken language. In future sessions, she was encouraged to rely on her extensive oral vocabulary to make real word substitutions when printed words were unfamiliar to her.

The next RMA question asked during RMA Session No. 1 required Gloria to consider which miscues should be corrected. Her comments revealed that she recognized some of her miscues made sense, and she did not insist that these miscues should have been corrected. She justified these determinations with such remarks as: "could have got away with that one" (her belief that she "cheats" is reflected in this comment); "it must've sounded okay self-consciously in my mind"; "it's the same." When miscues did not make sense, however, she stated they should have been corrected, and made such comments as: "wouldn't have made sense"; "not correct grammar"; "could visualize it better with the author's word." Also, Gloria provided further evidence that the syntactic system of language (i.e., grammar) is considered simultaneously with the semantic system when
readers are asked to evaluate whether miscues make sense and whether they should be corrected.

When Gloria was asked why she made particular miscues, she responded with these reasons:

**Figure 5.22**
Gloria’s Miscue No. 22
Gloria: They look alike, and mean the same thing.

It doesn’t seem the waves could ever get that high.

**Figure 5.23**
Gloria’s Miscue No. 23
Gloria: I’m not careful enough.

He invited me to have a seat and listen to his strange tale.

**Figure 5.24**
Gloria’s Miscue No. 24
Gloria: They don’t look alike but sometimes in a sentence they can act the same.

A fisherman warned the boy to stay in port.
The sky grew black and the waves rose up like mountains.

Gloria's Miscue No. 25

Gloria: This [b/d reversal] is what I used to have trouble with.

He walked for a long time and was surprised that he didn't recognize the shoreline.

Gloria's Miscue No. 26

Gloria: I skipped the first part.

Gloria revealed some accurate perceptions about the functions of words; for example, she commented that "the" and "a" do not look alike but sometimes act the same. However, these notions are outnumbered by her perceptions that her reading difficulties are caused by not being careful enough, by skipping the first parts of words, and by lingering tendencies to make reversals.

Some of Gloria's misconceptions about the reading process were most deeply rooted in her notions about word recognition itself, and about the strategies she used to recognize and pronounce words. One might
suspect that this aspect of reading—the accurate reproduction of words—has received the majority of her attention and the attention of others over the years. It is apparent that issues of meaning construction, of understanding what has been read, have received less attention and are in some sense less contaminated by a word-oriented view of the reading process. It was when Gloria was asked "Did that miscue affect your understanding of the text?" that she was the least critical of her strategies for making sense. The following examples are typical of her responses.

It doesn't seem the waves could ever even get that high.

Figure 5.27
Gloria's Miscue No. 27

Gloria: It sounds like slang. More or less means the same.

He invited me to have a seat and listen to this his strange tale.

Figure 5.28
Gloria's Miscue No. 28

Gloria: It wouldn't have put me off understanding the story.
When dark clouds kept other boats at anchor the boy would sail out, ready to prove to the villagers, to the sea itself, how great a sailor he was.

Figure 5.29
Gloria's Miscue No. 29

Gloria: It might throw the meaning of the book off.

The sky grew black and the waves rose up like mountains.

Figure 5.30
Gloria's Miscue No. 30

Gloria: I got the picture.
Then, suddenly, the boy felt the Zephyr begin to shake.

Figure 5.31
Gloria's Miscue No. 31

Gloria: I expect I would have corrected it even if I wouldn't have gone back to it--just mentally thought it.

Then the air was full of the sound of breaking branches and ripping sails.

Figure 5.32
Gloria's Miscue No. 32

Gloria: It wouldn't have stopped me from understanding.

Gloria apparently realized that some miscues do not interfere with understanding text and do not require correction. It was clear that RMA sessions with Gloria needed to focus on the legitimacy of these strategies, so she would feel less like a "cheater" and more like an effective and efficient reader.

RMA Session No. 2. This RMA session was based on Gloria's reading of a 658-word editorial she selected from her Travel and Leisure magazine. Following are
examples of Gloria's responses to three major RMA questions in this second session:

Question: Does the miscue make sense?

"A Great Year for Travel"

Figure 5.33
Gloria's Miscue No. 33

Gloria: Does that make a difference? I might be putting it more clearly. Makes more sense my way.

We swarmed to Europe to sightsee and shop (mostly the latter, it seemed).

Figure 5.34
Gloria's Miscue No. 34

Gloria: First time I was guessing. Then I looked harder and saw the "m." Not very good grammar. I know "sw."
We liked what we found, and we liked what we were becoming as travelers—in a word, discerning.

Figure 5.35
Gloria's Miscue No. 35
Gloria: Doesn't make sense. I was guessing again.

Incidents, such as the highjacking of the TWA 747 out of Athens and the takeover of the Achille Lauro cruise ship by terrorists, traumatized innocent vacationers.

Figure 5.36
Gloria's Miscue No. 36
Gloria: [about "terrorists"] I should have spelled it out. [about "traumatized"] Those two letters [au] scare me. If two letters in a word scare me, I won't do it.
Despite the fact that air travel remains, by far, our safest form of transportation, we asked, "Is it safe to fly?"

Figure 5.37
Gloria's Miscue No. 37

Gloria: I would have said it right if I'd looked at it hard enough.

I've said this before, but never was it so true: travel is no longer a luxury; it is essential to our lives.

Figure 5.38
Gloria's Miscue No. 38

Gloria: I would say that [traveling] more. "Traveling" is more personal. "Travel" is so cold.

Here is where several Travel and Leisure editors and contributors have recently traveled (and will be reporting on soon).

Figure 5.39
Gloria's Miscue No. 39

Gloria: I was reading too slow to get the gist of the story, and I didn't know what the last
three letters were. It could have been "and with . . ." but it wasn't.

These remarks are similar to those in the first RMA session, to the extent that they reveal Gloria's preoccupation with concentrating, or "looking harder" at letters within words. She did justify her substitution of "traveling" for "travel," asserting her own preference for the word "traveling." She has also begun to acknowledge that prediction is a factor in reading, as demonstrated in her explanation about why she substituted "with" for "will."

Question: Why do you think you made this miscue?

The
"A Great Year for Travel"

Figure 5.40
Gloria's Miscue No. 40

Gloria: My mind works overtime. I was thinking about last year being the best year for travel.

swamped
We swarmed to Europe to sightsee and shop (mostly the latter, it seemed).

Figure 5.41
Gloria's Miscue No. 41

Gloria: Not reading very well. Sight-seeing reading, you know. Not spelling it out.
Our ever-rising spirit of adventure propelled us to explore new and exciting places.

Figure 5.42
Gloria's Miscue No. 42
Gloria: Looking at first three letters.

Incidents, such as the highjacking of the TWA 747 out of Athens and the takeover of the Achille Lauro cruise ship by terrorists, traumatized innocent vacationers.

Figure 5.43
Gloria's Miscue No. 43
Gloria: [about "terrorists"] By guessing and not spelling it out. [about "traumatized"] I just guessed it. I was hoping if I carried on it would help me get that word.
Using her article alone, you could map out *traps* several trips in 1986, and not one would be remotely like another.

Figure 5.44  
Gloria's Miscue No. 44

Gloria: Didn't read the word, really the letters.

Gloria has hinted about the possible efficacy of "carrying on" when she encounters difficulty in reading; but this strategy is still outweighed by her certainty that she needs to focus more intensely on letters within words to insure accuracy.

Question: Did that miscue affect your understanding of the text?

We swarmed to Europe to sightsee and shop *later* (mostly the latter, it seemed).

Figure 5.45  
Gloria's Miscue No. 45

Gloria: [about "swarmed"] No, not even if I hadn't corrected, because the meaning is more or less the same. [about "latter"] Yes, but I just carried on thinking.
So go we shall, and with more fervor
than ever.

Figure 5.46
Gloria's Miscue No. 46

Gloria: Not really. I was in the same kind of context.

As in RMA Session No. 1, Gloria rather tenaciously argues that meaning is not often disrupted as a result of her miscues. Yet she remains convinced that her carelessness and failure to sound-out or spell-out words is leading to her difficulty in recognizing words.

In the NOTES section at the close of this RMA session, the researcher made the following comments:

1. She is SCARED of words—scared of letter combinations that she thinks are difficult to pronounce.

2. We need a category in the RMI to handle what I'm now thinking are "near words"; that is, words which do not exist, but possibly could or should exist, e.g.: every-rising (a word G. substituted for "ever-rising") demounted (a word G. substituted for "dismounted") alleged (a word G. substituted for "alleged") smoothing (as an adjective) (a word G. substituted for "soothing") Even though they are non-words, it is clear that some meaning is derived from their use. Actually, G. must know the meaning in order to substitute the "near word."

3. Gloria is sometimes using the word "guessing" to refer to the "predicting" strategy, though she denigrates its use. How to improve the quality of her guesses???
Notes such as these proved useful in the on-going evaluation of both the RMA technique and the development of the reader. Topics covered a wide variety of issues, and the notes often helped shape the selection of miscues for future RMA sessions.

**RMA Sessions Nos. 3 through 9.** Information from these RMA sessions will be combined for the purposes of discussion. It is important to note that beginning with RMA Session No. 3 and continuing through the remaining sessions, Gloria began to abandon her preoccupation with letter/word recognition and began to focus her attention on understanding text, including attempts to unravel the subtleties of written language. The following examples have been selected from the remaining seven RMA sessions, and are representative of the judgments Gloria made throughout those sessions.

**Question:** Does the miscue make sense?

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My baby brother Andrew made a few silly
  then
baby sounds and began to cry.
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**Figure 5.47**
Gloria's Miscue No. 47

Gloria: I put extra words in and it makes sense. I wouldn't speak like [the text].
Cry all you want to!

Figure 5.48
Gloria’s Miscue No. 48

Gloria: I was a little cross with the baby. I was a bit more vicious.

After all, it wasn’t Andrew’s fault that I had to stay home with him.

Figure 5.49
Gloria’s Miscue No. 49

Gloria: It makes sense, since I left the "to" out.

You don’t have to be a genius to win the prize, just smart enough to plan something really interesting and original.

Figure 5.50
Gloria’s Miscue No. 50

Gloria: Maybe I was thinking he had to "play the game" to win the prize...
"Yes, Miss, it's very important," I said to the lady on the telephone.

Figure 5.51
Gloria's Miscue No. 51
Gloria: Wouldn't have made sense. I had to fix it. [Researcher: What do you have to pay attention to to fix it?] Whether it makes sense to me.

There was pride in her voice.

Figure 5.52
Gloria's Miscue No. 52
Gloria: They mean the same thing but not in that sentence.

One day she gave him a bowl and said,
"Go to the storehouse and bring me some meal for our porridge."

Figure 5.53
Gloria's Miscue No. 53
Gloria: Being a mother, I'd say "your."
He walked and walked, and it was almost night when he reached the palace of the North Wind.

Figure 5.54
Gloria's Miscue No. 54

Gloria: I understood. I don't use the word "palace" very much.

The other guests in the inn were wonderstruck, and the innkeeper's wife demanded immediately determined that the tablecloth should belong to her.

Figure 5.55
Gloria's Miscue No. 55

Gloria: I think "demanded" is really stronger. If I was reading that to somebody they wouldn't stop me.

In the middle of the night she crept sleeping to the room where the boy was asleep and took the cloth with him.

Figure 5.56
Gloria's Miscue No. 56

Gloria: I'm putting my own things in...
When he reached home, the boy told his mother all his adventures and showed her the tablecloth.

Figure 5.57
Gloria's Miscue No. 57

Gloria: I'm making two sentences...

It worked once in the inn, but when I reached home it had lost its magic.

Figure 5.58
Gloria's Miscue No. 58

Gloria: I read a little bit further in my mind and it didn't make sense, so I corrected it.

The Queen gave to each a horse; the Princess's horse was called Falada, and it could speak.

Figure 5.59
Gloria's Miscue No. 59

Gloria: That's all right.
So, in her great thirst, the Princess stopped dismounted and stooped down to the stream and drank, since she was not to have her golden cup.

*Figure 5.60*
Gloria's Miscue No. 60

Gloria: By the end of the sentence it was all right.

Despite a common belief that school kids get plenty of exercise, at least one of every four children in Reno is "overfat" and risks more health problems and a shortened life as a result, a Reno doctor told state lawmakers Friday.

*Figure 5.61*
Gloria's Miscue No. 61

Gloria: Maybe I said that because the title said "kids."
Four out of five overfat children will be fat adults and have higher than average risks of shortened lives, Eoff said.

Figure 5.62
Gloria's Miscue No. 62

Gloria: I don't like "ed" on the end of that word... sounds like bad grammar.

Gloria had become a reader who was willing to make judgments about both her reading strategies and the text itself, even to the point of suggesting that her word choices were often more meaningful than the author's.

Question: Why do you think you made that miscue?

"If it bothers you to think of it as baby sitting," my father said, "then don't think of it as baby sitting.

Figure 5.63
Gloria's Miscue No. 63

Gloria: I skipped the word completely, thinking about what he was going to say. My subconscious mind knew what he was going to say.
The next day at noon, as soon as classes let out for lunch, I called the local television station.

Figure 5.64
Gloria's Miscue No. 64

Gloria: I was looking ahead at "classes" and thought it said "glasses"--so I predicted "some glasses." I corrected it when it didn't work.

"I have no meal," said the North Wind, "but I'll give you a tablecloth that will be any better than many bushels of grain."

Figure 5.65
Gloria's Miscue No. 65

Gloria: I was getting into the story...
Health care experts, speaking in Reno before legislative subcommittees on containing health care costs, urged more physical education programs for school children as one way to make them healthier and reduce future health care costs.

Figure 5.66
Gloria's Miscue No. 66

Gloria: I guess they look a lot alike, but I should have realized it doesn't make sense.

The strategies of predicting, sampling, confirming, and correcting when necessary had become strategies Gloria recognized as effective when reading for meaning.

Question: Did that miscue affect your understanding of the text?

I sat looking down at Andrew.

Figure 5.67
Gloria's Miscue No. 67

Gloria: No. I got a different picture, but as long as he's looking at him it's all right. It doesn't matter if he's looking "down" at him.
To that end, experts suggested that children be required to take part in physical education programs and that teachers be required to get more physical education training.

Figure 5.68
Gloria's Miscue No. 68

Gloria: It wouldn't be the children, so I had to correct it.

The old king looked out of the window and delighted saw the delicate, pretty little creature standing in the courtyard, so he arranged that she might help a little lad named Conrad who looked after the geese.

Figure 5.69
Gloria's Miscue No. 69

Gloria: Maybe a bit, but I think the princess could have been both delighted and delicate and it wouldn't have made much difference.
Soon after, the false bride said to the husband-to-be, "Dear Prince, I pray you to do me a favor."

Figure 5.70
Gloria's Miscue No. 70

Gloria: Yeah. They mean something different. That's probably why I corrected it.

There was once an old Queen whose husband had been dead for many years, and she had a very beautiful daughter who was betrothed to a Prince in a distant country.

Figure 5.71
Gloria's Miscue No. 71

Gloria: [about "very"] Really doesn't matter. [about "distant"] I don't suppose it makes sense. But I don't think I missed the whole story because of it.

Discussion. The retrospective responses Gloria made during nine sessions, across a period of four months, provide on-going evidence of her shifting view of the reading process. In the first two RMA sessions, the need for accuracy in word recognition dominated Gloria's responses. Even when she admitted that meaning had probably not been disrupted, she persisted in her
belief that she needed to concentrate and more closely examine the letters within words. RMA sessions were designed to encourage her to decide that concentrating on making sense was the most effective and efficient strategy available to her. And, as the study progressed, her beliefs began to change. The information provided in the following section, "The Closing Interview," further corroborates the changes in Gloria's perceptions about the reading process. The shifts in attitude and reading strategies were mutually supportive, and she began to rely even more heavily on meaning-seeking as a primary reading strategy. Documentation of the effect of this attitude shift on improving her reading is provided later in this chapter (see "Changes in Strategies Utilized in the Reading Process").

The Closing Interview

During the final session, a Closing Interview (see Appendix C) was used to ascertain whether there had been any changes in the way Gloria perceived her strengths and weaknesses as a reader. In addition to the questions listed in the Closing Interview, appropriate questions were selected from the Burke Interview Modified for Older Readers (BIMOR) conducted at the outset of the study. Gloria was asked to respond to
those questions as well. Following are relevant excerpts from the Closing Interview.

Question: When you are reading and you come to something that gives you trouble, what do you do?

Gloria: Well, now if I'm into the story I try to read on and I try and get the word later. I try to look at the next couple of words. The other day I actually went on, then I went back to it and I realized it was such a simple word--I should have got it really. Wasn't simple, but just because it was long I didn't get it. Then I went into the sentence and got it right. So that's what I try and do now.

In contrast with her initial answer to this question, Gloria at the conclusion of the study seemed to value the strategy of reading on when encountering difficult text. There was a sense in her initial interview that although she used this strategy, she believed it was somehow substandard--that good readers looked words up in the dictionary.

Question: How do you feel about yourself as a reader?

Gloria: I feel a lot better since I've been with you. I felt like I was on the mend a little when I came to you. I still think reading is boring; I don't find it that exciting. I'd rather go out and do a lot of things and see it in action than I would to read it. But I do like it a little bit more than I did before. I mean I will pick up a paper now, and I will get into a book. But if the book has a boring paragraph, I can leave that paragraph and go on to the next. And so therefore short stories or short articles I find much more interesting than I did before. . . . If I want to read something, I might read it. If I find somebody that has the knowledge about it, then I would ask them.
Researcher: Rather talk about it than read about it?

Gloria: Yeah. But, as I say, I'm a lot better than I was.

In her own words, Gloria has changed from someone who used to "close up the book" if she encountered a word she didn't know, to someone who now is willing to skip entire paragraphs when they are boring. She wouldn't allow herself to skip words before—now she gives herself permission to skip chunks of text in order to suit her purposes for reading. She has assumed control of the reasons for reading: she has begun to own her own process. And in assuming that ownership she is free to admit, without apologizing, that she often finds reading boring and believes the information-gathering value of reading can frequently be replaced with conversation. Further indication of her growing sense of control is revealed in the next exchange:

Question: Do you have any different attitudes about reading than you had at the beginning?

Gloria: I find that now I am looking around for something to read. Used to be when I was in a doctor's waiting room, I would just sit there. And now I will try to find a paper or a book to read. Anything, rather than just sit there and be bored. Before I wouldn't touch a piece of paper with words on it. It would either be scary, or I knew I couldn't even read "the cat sat on the mat." Why would I want to read it if I couldn't understand it?
She may prefer to "do" rather than "read," but when faced with some of life's more boring situations, e.g., the waiting room, Gloria now actively seeks reading material. The lessening of fear about the reading process has no doubt contributed to her willingness to attempt reading. During her initial reading interview, Gloria stated: "My whole life I've been scared of the word 'read'." Reading is no longer something that frightens her.

Gloria's perceptions about her strategies changed as well. In addition to acknowledging the value of reading on or skipping boring paragraphs, she has discovered that closing a book is not the only alternative available when she doesn't understand what she is reading:

Gloria: Also, I find that if I'm reading without understanding, I'll either change the article or go back and read, and say to myself, "Now try and understand it." Whereas, before I didn't used to.

Researcher: So you feel like you persevere more?

Gloria: Yea, I'm persevering more. I'm persevering a lot more.

Researcher: Do you think that's related to the fact that you have more confidence in your reading now?

Gloria: Yeah. I think I have a lot more confidence in my reading now. . . . Whether I'll sit down and read 10 books a week is another story.
Researcher: Who does anyway?

Gloria: I find that it is quite interesting to read, I must admit. I am surprised that people write such a lot of rubbish, though. And I never knew that before.

Reading for meaning has become a focus in Gloria’s reading. She is attempting to be conscious of understanding text as she reads, and is aware that focusing on making sense will help her read more effectively. Interestingly, her growing control of the reading process has given her the confidence to make statements she would not have made at the beginning of this study: she is willing to acknowledge her own strengths, and she is also willing to acknowledge that much written material is “rubbish.”

Her introspection about mental processes during reading is revealed in the following answer:

Question: Have there been any changes in how you read as a result of our sessions?

Gloria: Yeah. I noticed when I went on holiday I took one book with me and tried to read it. Sometimes when I’m reading something, and it is a modern piece of material, I will relate that to my own well-being, so my mind does wander. Now, I could be still reading. I don’t know whether that’s good or that’s bad. I don’t know whether other people do that, or whether you should just concentrate on what you’re reading.
Researcher: I think maybe that's what authors want us to do. Generally, when I write and I have a particular audience in mind, I'm trying very hard to reach something in my reader that they can relate to. I want them to bring everything that's sitting on top of their shoulders to what I write, because that makes writing a communication. . . . So I think you're doing the right thing if you're trying to relate whatever you read to your life.

Gloria has changed her word-oriented focus to a focus on meaning, on thinking. She has also come to realize that she no longer needs to hide her inadequacies, to cheat and "cover up" in the ways she was accustomed to before this study:

Gloria: But then I read recently there's a lot of people who are still like me, which has all come out into the air. So this is why I don't mind when people say "What are you doing?" and I say "I'm learning to read and write." I mean I come right out with it. So they look at me and say "pardon?" I say "I've got a person helping me and putting me onto the right road." I'm getting more of a response, and instead of people looking down at me, if anything they're looking up. Years ago they would look down at you, thinking you were odd.

Gloria has become brave enough to, in effect, come out of the closet with her reading difficulties, and to her surprise her friends admire her for attempting to become a better reader. In addition to her discovery that not all writing is good, she has also realized that not all good readers can perform tasks she has difficulty with:
Gloria: But I still have trouble writing things down over the telephone, but I'm getting better about saying "Please repeat it" which I feel like even people who are good readers say. When [I] had no confidence, I would think that all the clever people only wrote it down once. But I realized that people don't.

She attributes some of her difficulty to inadequate training in school, and she stated that when "you're not in the advanced class they don't teach you how to do things properly, since they assume you can't do it anyhow." In her view, "some of the higher class stuff would be good for the low people"; unfortunately, according to Gloria, "they put me in the dunce class, and I wasn't a dunce."

In a follow-up line of questions related to reading strategies, Gloria revealed what her current model of the good reader is:

Question: Tell me what you think about clever readers? How are they different from you, and how are they just like you?

Gloria: I think good readers want to improve themselves, even if they read novels. They want to improve their insight into the world.

Researcher: Do they make mistakes?

Gloria: Yeah. I think they make mistakes in their ordinary, everyday reading. I think good readers always want to understand what they are reading. I think they understand what they are reading, but there might be one word that they have never heard of. Then they will try to learn that word. Some of them will put it into their vocabulary, others will say "OK, that's what it is."
Researcher: If you're reading for pleasure, is it as important to fuss with words?

Gloria: No, just go on to the next sex, or murder, or whatever. In fact, the authors that write those books will not use those words so much, I find. They will try and not use as many big words.

Researcher: What about other kinds of miscues? What about when you substitute "his horse" for "the horse"?

Gloria: That really doesn't matter as much. If you make too many mistakes where it is the wrong person, then it could confuse the plot. If you make too many mistakes, you may get the wrong person playing the wrong part. Which you have got to realize.

Researcher: You realize that by doing what?

Gloria: Going over it again. You have to pay attention to the next paragraph, mainly. Then you might figure it out.

Researcher: You can only do that if you're paying attention to what?

Gloria: The story, I think, the story mainly. By getting into the story, by what makes sense more than anything.

Discussion. In her own words, Gloria has confirmed that retrospective miscue analysis has contributed to her greater self-confidence and improved reading strategies.

Changes in Strategies Utilized in the Reading Process

The change in Gloria's attitude toward reading was accompanied by changes in the reading strategies she utilized. Those changes will be documented through
analyses of her reading using the Reading Miscue Inventory, Procedure I.

The Procedure

The Reading Miscue Inventory (RMI), Procedure I, was used to analyze miscues generated by Gloria throughout this study. For each of 10 texts, Gloria was asked to read orally into a tape-recorder and then retell what she recalled about the text. In each of those readings, she was unassisted by the researcher. After the reading and retelling, the researcher analyzed each miscue to consider the relationships between expected responses (text) and observed responses (miscues) in six categories: graphic similarity, sound similarity, syntactic acceptability, semantic acceptability, meaning change, and correction. The interrelationships among syntactic acceptability, semantic acceptability, meaning change, and correction were analyzed to document the extent to which Gloria controlled the construction of meaning and the grammatical relationships in the texts. In addition, miscues per hundred words were calculated. Details of the complete miscue analyses are provided below.

The Texts

Each of the texts for Gloria’s tape-recorded readings was selected either by her or by the researcher
with her approval. Gloria indicated a desire at the outset to learn to read storybooks to children, commenting that she might like to work in a kindergarten. The majority of the texts she read reflected this interest in children's literature; in fact, several are from an anthology she purchased. On two occasions, she elected to read nonfiction articles from a newspaper and a magazine, respectively. Gloria was asked by the researcher to read "The Wreck of the Zephyr" at both the beginning and conclusion of the study, as a pre- and post-RMA indication of strategy use. It is recognized that miscue analysis is seldom performed on a text which the reader knows well; however, this was a story neither Gloria nor Marianne (the woman in the second case study) had ever read previously, and they did not read it for a second time until more than four months after their first readings.

Following is a list, in the order in which Gloria read them, of the texts used for retrospective miscue analysis sessions during this study. The Fry readability formula was used to estimate reading level for comparison purposes. The number of words in each story has been calculated from approximately the second paragraph, since it is from that point that the researcher began coding miscues.
<table>
<thead>
<tr>
<th>Session Sequence No.</th>
<th>Abbreviated Title (first reading)</th>
<th>No. Words</th>
<th>Readability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Zephyr  (10-21-85)</td>
<td>1,270</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Window Seat  (12-5-85)</td>
<td>658</td>
<td>College</td>
</tr>
<tr>
<td>3</td>
<td>Genius  (12-10-85)</td>
<td>1,873</td>
<td>6-7</td>
</tr>
<tr>
<td>4</td>
<td>North Wind  (12-19-86)</td>
<td>976</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Palace  (12-27-86)</td>
<td>1,321</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Goosegirl  (1-14-86)</td>
<td>1,020</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>Overfat  (1-22-86)</td>
<td>438</td>
<td>College</td>
</tr>
<tr>
<td>8</td>
<td>Kept House  (1-28-86)</td>
<td>750</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Mouse  (2-6-86)</td>
<td>945</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>Zephyr  (second reading) (2-12-86)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Because Gloria self-selected most of the texts (the exceptions are "Zephyr," "Genius," and "Kept House"), the difficulty level is not arranged neatly from easier to more difficult over time. Yet in order to document her changes in strategy use, it is useful to group the texts according to their relative difficulty. The Fry readability formula proved a useful tool for grouping the texts into four levels, and further presentations of the findings will consider the texts as comprising the following groups:
<table>
<thead>
<tr>
<th>Group No.</th>
<th>Readability Level</th>
<th>Title</th>
<th>Session Sequence No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>Kept House</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Zephyr (first reading)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Palace</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zephyr (second reading)</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Genius</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>North Wind</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Goosegirl</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mouse</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>College</td>
<td>Window Seat</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overfat</td>
<td>7</td>
</tr>
</tbody>
</table>

The Analyses

Gloria made a total of 743 miscues during the reading of these 10 texts, which were analyzed using Procedure I of the Reading Miscue Inventory. Summaries of the results of the miscue analysis are presented in the following three tables. Note that the texts are grouped according to relative difficulty, and within each group the texts are presented in the order in which Gloria read them.
Table 5.1
Gloria’s Meaning Construction

<table>
<thead>
<tr>
<th>Title</th>
<th>Miscues Per Hundred Words</th>
<th>Meaning Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No Loss</td>
</tr>
<tr>
<td>Group 1 (Readability = 3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kept House</td>
<td>4.1</td>
<td>84%</td>
</tr>
<tr>
<td>Group 2 (Readability = 5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zephyr (#1)</td>
<td>10.2</td>
<td>55</td>
</tr>
<tr>
<td>Palace</td>
<td>7.5</td>
<td>78</td>
</tr>
<tr>
<td>Zephyr (#2)</td>
<td>5.5</td>
<td>80</td>
</tr>
<tr>
<td>Group 3 (Readability = 7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genius</td>
<td>6.2</td>
<td>57</td>
</tr>
<tr>
<td>North Wind</td>
<td>5.7</td>
<td>75</td>
</tr>
<tr>
<td>Goosegirl</td>
<td>9.9</td>
<td>47</td>
</tr>
<tr>
<td>Mouse</td>
<td>4.9</td>
<td>85</td>
</tr>
<tr>
<td>Group 4 (Readability = College)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Window Seat</td>
<td>11.7</td>
<td>39</td>
</tr>
<tr>
<td>Overfat</td>
<td>6.4</td>
<td>39</td>
</tr>
<tr>
<td>Title</td>
<td>Miscues Per Hundred Words</td>
<td>Grammatical Relationships</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strength</td>
</tr>
<tr>
<td>Group 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kept House</td>
<td>4.1</td>
<td>65%</td>
</tr>
<tr>
<td>Group 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zephyr (#1)</td>
<td>10.2</td>
<td>56</td>
</tr>
<tr>
<td>Palace</td>
<td>7.5</td>
<td>67</td>
</tr>
<tr>
<td>Zephyr (#2)</td>
<td>5.5</td>
<td>74</td>
</tr>
<tr>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genius</td>
<td>6.2</td>
<td>50</td>
</tr>
<tr>
<td>North Wind</td>
<td>5.7</td>
<td>68</td>
</tr>
<tr>
<td>Goosegirl</td>
<td>9.9</td>
<td>45</td>
</tr>
<tr>
<td>Mouse</td>
<td>4.9</td>
<td>77</td>
</tr>
<tr>
<td>Group 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Window Seat</td>
<td>11.7</td>
<td>37</td>
</tr>
<tr>
<td>Overfat</td>
<td>6.4</td>
<td>43</td>
</tr>
</tbody>
</table>
Table 5.3
Gloria's Graphic and Sound Similarity

<table>
<thead>
<tr>
<th>Title</th>
<th>Graphic Similarity</th>
<th>Sound Similarity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Some</td>
</tr>
<tr>
<td><strong>Group 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kept House</td>
<td>52%</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Group 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zephyr (#1)</td>
<td>61</td>
<td>18</td>
</tr>
<tr>
<td>Palace</td>
<td>56</td>
<td>19</td>
</tr>
<tr>
<td>Zephyr (#2)</td>
<td>63</td>
<td>19</td>
</tr>
<tr>
<td><strong>Group 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genius</td>
<td>71</td>
<td>17</td>
</tr>
<tr>
<td>North Wind</td>
<td>60</td>
<td>28</td>
</tr>
<tr>
<td>Goosegirl</td>
<td>57</td>
<td>22</td>
</tr>
<tr>
<td>Mouse</td>
<td>53</td>
<td>21</td>
</tr>
<tr>
<td><strong>Group 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Window Seat</td>
<td>72</td>
<td>23</td>
</tr>
<tr>
<td>Overfat</td>
<td>66</td>
<td>29</td>
</tr>
</tbody>
</table>
Group 1. Only one text, "The Man Who Kept House," is included in Group 1 because Gloria read only one story at this level of difficulty. It was the eighth text she read, and it reveals many of the strengths Gloria possessed at this point in the study. She made a modest 4.1 miscues per hundred words and retold the story quite thoroughly, as might be predicted with only 13% of her miscues potentially resulting in loss of meaning (Table 5.1). Only 6% of her miscues indicated weakness in controlling the syntactic relationships within the text (Table 5.2). Her reliance on graphophonic cues was moderate: 52% of her miscues were highly similar graphically, and 42% were highly similar in sound. These percentages are typical of proficient readers. She exhibited overcorrection behavior in 19% of her miscues. This rather high percentage is possibly the result of her sense of control over this text—it was easy for her to read and she was able to correct miscues that were semantically and syntactically acceptable. Although this ability is indicative of her effectiveness in monitoring the construction of meaning, it suggests that she may be somewhat inefficient in processing language. That is, the effort required to correct acceptable miscues may outweigh the benefits to the reader who is reading for meaning.
Group 2. The Group 2 texts include two readings of "The Wreck of the Zephyr," once at the beginning of the study and a repeated reading four months later. The "Palace" text was selected by Gloria from an anthology of short stories. Reflected in this group of texts is Gloria's dramatic reduction in miscues per hundred words (MPHW) from the beginning of the study until its end—a trend reflected in the other groups of texts as well. In her first reading of "Zephyr" she made 10.2 MPHW, and in her second reading she made 5.5 MPHW. In the "Palace" text, read midway through the study, she made 7.5 MPHW. Accompanying this reduction in MPHW is a marked increase in the percentage of miscues which suggest no loss in meaning—from 55% in "Zephyr (#1)," to 78% in "Palace," to 80% in "Zephyr (#2)." The percentage of miscues likely to result in a loss of meaning has concurrently declined from 34% in "Zephyr (#1)," to 12% in "Palace," and 17% in "Zephyr (#2)."

Gloria's control over grammatical relationships also strengthened across time at this Group 2 level of difficulty (Table 5.2). Miscues demonstrating weakness in controlling syntactic structures declined from 21% in "Zephyr (#1)," to 13% in "Zephyr (#2)." The interim "Palace" text shows weakness in only 8% of miscues. A steady increase across time in miscues demonstrating strength is also revealed in Table 5.2. Fifty-six
percent of Gloria's miscues in "Zephyr (#1)" reflected strength in controlling syntactic relationships. In "Palace" the percentage rose to 67%, and in "Zephyr (#2)" 74% of Gloria's miscues reflected her ability to control the syntactic relationships within the text.

Gloria's use of graphic cues remained stable across time in the Group 2 texts (Table 5.3). There was, however, a substantial lowering of her reliance on phonic cues. The percentage of miscues with high similarity between the text and the miscue declined from 60% in "Zephyr (#1)" to 47% in "Zephyr (#2)." In "Palace," only 42% of Gloria's miscues were highly similar in sound to the text, and 39% of her miscues showed no sound similarity whatever.

**Group 3.** The texts in Group 3 contain one researcher-selected text, "My Brother is a Genius," and three reader-selected texts from an anthology of children's stories: "The Boy and the North Wind," "The Goosegirl," and "The City Mouse and the Country Mouse." Each of these texts was at the seventh grade level, according to the Fry readability formula.

Before describing the miscue analysis findings for these four texts, it is important to describe the context in which one of the readings took place. "Goosegirl" was the sixth text read by Gloria during this study, and it was the only reading performed under
obviously stressful conditions. The researcher and Gloria typically met at Gloria's house, and the readings and miscue analysis sessions were conducted at Gloria's kitchen table. At the session during which "Goosegirl" was read, Gloria's boyfriend, the airline pilot with whom she lived, was at home, rather boisterously preparing himself a late breakfast. He gave every indication that he resented the time Gloria was spending at the table, while he was preparing his own meal. Kitchen pots and pans slammed onto counter tops and stove burners as Gloria attempted to read "Goosegirl" aloud into the tape-recorder. Although the researcher offered to leave and return at another time, Gloria insisted that she would not "give in" to his childish behavior. The session was unpleasant, and Gloria's reading of "Goosegirl" no doubt reflects the anxiety she was feeling: she made 9.9 MPHW and 45% of her miscues reflected a probable loss of meaning (Table 5.1). Thirty-seven percent of her miscues demonstrated a weakness in controlling syntactic relationships--the highest percentage of "weakness" she showed at any level of difficulty (Table 5.2). It is tempting to disregard this text, because there is a sense in which it is unrepresentative of Gloria's usual reading style; but it serves as a reminder that, perhaps for adults
especially, the stress of everyday life will affect the success of any instructional technique.

The remaining three texts show a steady strengthening of strategies across time. In reading "Genius," Gloria made 6.2 MPHW, declining to 5.7 MPHW in "North Wind," and further declining to 4.9 in "Mouse." Her ability to construct meaning as she reads also improved over time: 57% of the miscues in "Genius" resulted in no loss of comprehension; 75% of the "North Wind" miscues showed no loss of comprehension; and the "Mouse" no-loss percentage rose to 85%.

Strength in controlling syntax also reflected Gloria's growing proficiency in reading. In "Genius," 50% of her miscues demonstrated "strength"; in "North Wind" and "Mouse" the percentages rose to 68% and 78%, respectively. A scant 5% of miscues suggested weakness in "North Wind," and the weakness percentage was only 8% for "Mouse."

Reliance on graphophonic cues also reduced across time at this level of difficulty. Percentages of high graphic similarity were reduced from 71% in "Genius," to 60% in "North Wind," to 57% in "Goosegirl," and, finally, to 53% in "Mouse" (Table 5.3). The percentages of high sound similarity were reduced also, from 53% in "Genius," to 31% in "Mouse." These reductions in a focus on the graphophonic cueing system
parallel the increases in her focus on semantic and syntactic cues, as described above. Gloria's growing control over the reading process is obvious when these seventh grade texts are compared over time.

Group 4. Both of the Group 4 texts were nonfiction articles selected by Gloria, and both are in the college-level range of difficulty. They were the second and seventh texts read by Gloria during the study. Her growing competence is not as clearly demonstrated in these texts as in the Group 2 and 3 texts, but there are definite indications that she is becoming more proficient. For example, perhaps the most significant sign that her strategies are improving is the reduction in miscues per hundred words from 11.7 in "Window Seat" to 6.4 in "Overfat" (Table 5.1). Although the percentage of "no-loss in meaning" miscues was the same for both readings (39%), Gloria was in the second text able to reduce her percentage of loss from 53% to 43%. Keeping in mind that she was now making 5.3 fewer miscues per hundred words, she does indeed appear to be strengthening her strategies, even at this most difficult level. Her ability to control the grammatical relationships also demonstrates an increase in "strength" from 37% in "Window Seat" to 43% in "Overfat" (Table 5.2).
It is typical for readers to rely more heavily on graphophonic cues as reading material becomes more difficult, and Gloria demonstrates a similar tendency. In "Window Seat" 72% of her miscues showed high graphic similarity, and 57% showed high sound similarity (Table 5.3). In "Overfat" high graphic similarity declined to 66%, while high sound similarity remained stable at 57%. However, there was an increase in the percentage of miscues which bore no sound similarity to the text, from 11% in "Window Seat" to 19% in "Overfat."

Discussion. At every level of difficulty, Gloria displayed an improvement in the quality of her miscues, accompanied by a decline in the number of miscues she made. Her reading ability was strengthened as she moved from a text reproduction model of the reading process to a meaning-construction model. But was retrospective miscue analysis responsible for these shifts in attitude and ability? At least two other factors may be cited as contributing to her success. First, Gloria was extremely motivated in her desire to become a better reader. Second, she lived in a literate environment, and it is recognized that any strategy which would encourage her to increase her reading of whole texts would contribute to an improvement in reading ability. However, during the course of this research, Gloria was not participating in any other
instructional setting, and no previous instruction had focused on encouraging her to revalue her reading ability.

In evaluating cause-and-effect relationships in naturalistic research, Guba and Lincoln (1981) state that the researcher must consider rival hypotheses which could explain the results. When no convincing rival theories are apparent, it is likely that the independent variables in question have brought about any documented changes in dependent variables. In this instance, it certainly seems plausible that retrospective miscue analysis, as described in Chapter 4, precipitated the changes in Gloria's attitudes and abilities. It is acknowledged, however, that an absolute cause-and-effect relationship has not been established.
CHAPTER 6

THE DEVELOPMENT AND REEVALUATION OF MARIANNE

This chapter will present qualitative and quantitative analyses in the use of retrospective miscue analysis as an instructional strategy with a second adult reader. It includes the quantitative presentation of miscue analysis data and the descriptions of interviews and retrospective miscue analysis sessions. The data is presented as a case study, structured around the research questions outlined in Chapter 3.

Introduction

Marianne is a contrast to Gloria in nearly every respect. Her appearance contrasts dramatically—Gloria is 41, blonde, and glamorous. Marianne is 21, brunette, and heavy-set. Gloria lived with an airline pilot in an exclusive, foothills home in Reno. Marianne lives with her parents and two younger brothers in a modest dwelling in Sparks, Reno’s lower- and middle-income residential suburb. More subtle differences between the two exist, however. At 41, Gloria was just beginning to "expose" herself and what she believed were her inadequacies to her friends and the world at large. For more than twenty years Gloria had survived because, as
she described it, she "faked it"—never allowing those with whom she worked and lived to realize the extent of her difficulties. Marianne has been in special education classes since junior high, and almost proudly boasts that she has had dyslexia since first grade, though she reports having begun to cure herself. Gloria avoided applying for any kind of position which required her to complete an application—Marianne writes on her applications that she has a reading disability. Gloria is in the throes of deciding whether to pursue a "course" at a college—Marianne has been going to Truckee Meadows Community College for two years, taking classes in automotive mechanics and electronics.

Marianne works two part-time jobs: one as a dishwasher for a nursing home and the other as a nighttime janitor for a fabric store. She began her four-month participation in this study during July of 1986. Her English and reading instructor at Truckee Meadows Community College referred her as a possible subject, stating that Marianne was a "classic dyslexic" who had overcome some of her difficulties. Marianne's two courses in reading instruction at Truckee Meadows were comprised of individualized workbook activities, combined with remediation using Slingerland's kinesthetic approach.
Like Gloria, Marianne has vivid memories about her schooling. She relayed the following experience during her initial session:

Researcher: Do you have any memories of being in junior high school and what you did about reading then?

Marianne: They had me read into a tape recorder to see if I had any feeling, and when I didn't the teacher stuck her fingernails in my leg. I got her back. I threw a desk at her.

Researcher: What do you mean by "feeling"?

Marianne: It's like when you get to the end of a sentence you're supposed to go lower or higher, and with me it was all the same thing. When she listened to my tape she said, "This sounds like a broken person trying to read this."

And, also like Gloria, Marianne feels victimized by an educational system which did not recognize nor properly treat her dyslexia. There was unmistakable bitterness in her voice as she shared her thoughts about her failure to learn to read well:

Marianne: Teachers were playing God, lawyer, doctor, everything, saying, "Oh, she's going to die when she's eighteen. You might as well take her out of school and put her in the state institution." I was healthy, it's just that they did not know what the word "dyslexia" was and they fought all the time with my mother when she said "She has dyslexia. It is a reading problem."

Marianne openly discussed how dyslexia has limited her job opportunities:

Researcher: How do you feel about the dyslexia at this point in your life?
Marianne: It's hard to fill out an application to get a job when you put down you have a reading problem. "Oh, let's tell her we don't have any jobs." It is hard to get jobs. The only job that comes halfway decent to me is dishwashing. But what if I want enough money to live on? What if I want something else? It's hard to find an employer to take you. They won't hire me and give me a chance. That's the whole problem. Nobody gives you a chance.

Researcher: Do you still feel plagued by dyslexia, or are you working through it?

Marianne: Part of me feels, "Why me?" The other part says, "Life's that way, I guess. I let it go."

Marianne demonstrated in these and other comments that years of being considered a "broken person" by teachers had resulted in convincing her that she is indeed broken by her disability. She has been hindered in her attempts to find meaningful work, and there is resignation in her voice when she states "Life's that way, I guess." She believes that the "whole problem" is that "nobody gives you a chance," but Marianne must first learn to give herself a chance. In July of 1986, Marianne seemed to be precisely the kind of reader who might benefit from the confidence-building aspects of retrospective miscue analysis.
Research Question No. 1: How do adults who contact a college remedial reading center for assistance describe the reading process and their strengths and weaknesses as readers?

The Burke Interview Modified for Older Readers was used to gather information about Marianne's perceptions of the reading process and her ability to read. Her responses to the following questions were tape-recorded during her first session on July 5, 1986. In general, she was initially more reticent to discuss her reading than Gloria had been.

Marianne's Strategies

Marianne describes the reading strategies she uses in the following way:

Question: When you are reading and you come to something that gives you trouble, what do you do?

Marianne: Skip over it. Sometimes I write the word down and ask my parents what it means.

Although skipping words might seem like the kind of psycholinguistic strategy one might recognize as a strength, it is merely one Marianne resorts to when she is unable to execute the strategy she believes is better—looking up words in the dictionary. And her statement that she would ask others to provide meanings for words is indicative of a very "dependent" strategy as well.
Reading Strategies of Good Readers

Although Marianne claims to "skip over" words that are difficult, her mother, whom Marianne describes as a good reader, uses a strategy Marianne feels unable to execute:

Question: Who is a good reader that you know?
Marianne: My mom.

Question: What makes her a good reader?
Marianne: She reads a lot. She helps me.

Question: Does she ever come to something she doesn't know?
Marianne: Yeah.

Question: What does she do?
Marianne: She looks up words in the dictionary.

Question: Do you ever do that?
Marianne: Not really, because I can never find the words.

Marianne seemed completely immobilized by her difficulties with word recognition. She believed that consulting a dictionary was the right strategy to use—it's just that she could never find the words. Her only other apparent alternatives were to ask someone what the words meant—not very helpful when reading alone—or to skip them. She never claimed that when skipping words
she could frequently discern their meanings from the contexts. Reading for meaning was not the primary focus of Marianne's reading.

Marianne's Instructional Model

Marianne recalled that she learned to read in first grade by memorizing words:

Question: How did you learn to read?

Marianne: Going home to ask my parents to help me memorize the page. Then I could sit in class and if the teacher called on me I could read.

This recollection is clearly focused on the accurate production of text when called upon by teacher. And in Marianne's mind, the reading had to be so accurate that, in fact, memorization was necessary. The instructional technique she would recommend for readers having difficulty is a familiar one:

Question: If you knew someone who was having difficulty with reading, how would you help them?

Marianne: Tell them to practice.

Question: How?

Marianne: Sit down and read a book with somebody.

Question: How does that work?

Marianne: You sit down and read along with someone and if you get in trouble you have them say the word and keep going on. But if you keep missing that word, stop and spell the word, and say it, and go through that way.
Not surprisingly, Marianne would assist others in the ways she was assisted as a child, through "practice." Her description of those practice sessions is probably similar to practice sessions she has participated in herself. It is interesting to note in her explanation of the practice routine that she assumes the role of the "reader having difficulty," rather than the role of teacher, i.e., "You [meaning her] have them [meaning the helper] say the word . . . but if you [meaning her, again] keep missing that word . . . ."

Marianne seemed convinced that learning to be a better reader required the direct assistance of a teacher who would monitor and correct every word Marianne read. And the researcher had the definite sense that Marianne would be reluctant to assume ownership of her reading--that a teacher who refused to "say the words" would once again be someone who was abdicating responsibility for truly helping her. Marianne did, however, possess the characteristics of a reader for whom retrospective miscue analysis might be useful, and so without undue concern about her reluctance to do so, the researcher asked her to read "The Wreck of the Zephyr," unaided, into a tape-recorder.
Research Question No. 2:
What are those adults' strengths and weaknesses in reading as revealed through analysis using the Reading Miscue Inventory?

During Marianne's first meeting with the researcher, she was asked to read "The Wreck of the Zephyr" in order to analyze her strengths and weaknesses at the outset of the study. Despite her belief that teachers should help readers by "giving them the words," she willingly read this 1,270-word story without assistance from the researcher. She made 77 miscues while reading "Zephyr"--an average of 6 miscues per hundred words. Her reading was analyzed using Procedure I of the Reading Miscue Inventory, and findings from that analysis are presented below.

Graphic and Sound Similarity

Marianne's miscues were analyzed to determine the extent to which they looked and sounded like the text. For graphic similarity, 83% were highly similar to the text and 11% had some similarity. Six percent were not at all similar. Sound similarity analysis revealed that 60% of Marianne's miscues were highly similar to the text, 36% were somewhat similar, and 4% bore no sound similarity.
Syntactic Acceptability

Marianne's miscues were analyzed to determine the extent to which she was producing structures that were syntactically acceptable within the text. Fifty-one percent of her miscues were fully acceptable syntactically. Examples include:

He seemed to be reading my mind
when he said, "Odd, isn't it?"

Figure 6.1
Marianne's Miscue No. 1

Marianne produced 32% of miscues that were partially acceptable; that is, they were acceptable with a portion of the sentence, or acceptable within the entire sentence but inconsistent with the entire text. Following is an example of this kind of miscue:

'There's the only sailor who can go
out on a day like this.'

Figure 6.2
Marianne's Miscue No. 2
Seventeen percent of Marianne's miscues produced unacceptable syntactic structures, including the following:

There was a boy who could sail a\underline{boat}\[
\textit{better than any man in the harbor.}
\]

Figure 6.3
Marianne's Miscue No. 3

Semantic Acceptability

This category evaluates the extent to which Marianne was producing miscues that made sense within the context of the story. Twenty-one percent of her miscues were fully acceptable, both at the sentence level and within the entire story. For example:

An old man was sitting\underline{along} among the broken timbers, smoking a pipe.

Figure 6.4
Marianne's Miscue No. 4

Partial acceptability was determined in 40\% of Marianne's miscues. That is, the miscues were acceptable with a portion of the sentence in which they occurred, or were acceptable within the entire sentence
but inconsistent with the text considered as a whole. An example follows:

![Figure 6.5](image)

Marianne's Miscue No. 5

Thirty-nine percent of miscues were semantically unacceptable, including the following:

![Figure 6.6](image)

Marianne's Miscue No. 6

Meaning Change

Meaning change is analyzed only when miscues produce structures that are fully acceptable in syntax and semantics. Marianne produced 15 such miscues. Twelve resulted in no change in meaning, including:
Finally the sailor said he would try to teach him if the boy promised to leave the next morning.

Figure 6.7
Marianne's Miscue No. 7

Three created a change in minor characters or events, for example:

The Zephyr rested beside him, carried there by the storm.

Figure 6.8
Marianne's Miscue No. 8

None of Marianne's miscues changed major events or characters.

Correction

Marianne was successfully able to correct 30% of her miscues, and she unsuccessfully attempted to correct 7%. No overt attempt was made to correct 61% of her miscues.
Meaning Construction

The extent to which Marianne's miscues indicated a loss of comprehension was analyzed by considering the relationships among semantic acceptability, meaning change, and correction. Forty-seven percent of her miscues appeared to result in "no loss" of comprehension. The following miscue is indicative of this pattern:

He invited me to have a seat and listen to his strange tale.

Figure 6.9
Marianne's Miscue No. 9

"Partial loss" was suggested by 8% of her miscues, including this example:

The Zephyr rested behind him, carried there by the storm.

Figure 6.10
Marianne's Miscue No. 10

Forty-five percent of her miscues appeared likely to result in a "loss" of comprehension. For example:
Now the boy was certain he was truly the greatest sailor of all.

Figure 6.11
Marianne's Miscue No. 11

Grammatical Relationships

Marianne's relative strength in controlling the grammatical relationships inherent in text was analyzed by evaluating the patterns among syntactic acceptability, semantic acceptability, and correction. She demonstrated "strength" in maintaining grammatical relationships in 51% of her miscues. Following is an example:

The fisherman pointed to a sea gull gliding overhead.

Figure 6.12
Marianne's Miscue No. 12

"Partial strength" was apparent in 22% of Marianne's miscues. Instances of this kind of miscue include:
When the clouds blocked the boy's view of the stars, he trimmed the sails and climbed higher.

Figure 6.13
Marianne's Miscue No. 13

Marianne exhibited "weakness" in controlling grammatical relationships in 27% of her miscues. Following is an example:

Surely the men of the island never dared fly so high.

Figure 6.14
Marianne's Miscue No. 14

No miscues indicative of "over correction" behavior were noted.

Discussion

Marianne possessed many of the same strengths and weaknesses Gloria did at the outset of the study. Her reading strategies were effective in only about half of her miscues, and her self-confidence about her reading ability was very low. In some ways, her negative attitudes were even more entrenched than
Gloria's--she almost seemed to say, "Try to help me. I dare you." But her motivation was high; indeed, she had contacted the researcher about participating in the study. It is just that her defenses against another failure were firmly in place as she began the study.
Research Question No. 3:
What changes occur in the adults' perceptions and processes described in questions 1 and 2 over the period of this research?

Three sources of information will be used to describe the changes which occurred in both the strategies Marianne employs as she reads and her perceptions about the reading process. Details from retrospective miscue analysis sessions will document Marianne's gradual shift from believing she possesses no strength in reading, to believing that she is in control of her own reading process. Secondly, her responses to questions in the Closing Interview will be presented to support, in her own words, the impact of retrospective miscue analysis on her growing independence as a reader. And third, that growing independence in reading will be documented through an analysis of her reading throughout the course of this study.

Changes in Perceptions About the Reading Process

The Retrospective Miscue Analysis Sessions

Marianne's shifting and strengthening model of the reading process will be documented in the following section. There is an important difference, however, between the RMA sessions conducted with Gloria and those conducted with Marianne. The difference is not in how the sessions were structured but, rather, in how the
reader responded. Gloria's responses to the RMA questions were largely predictable. She began by focusing on text features and moved toward exploring semantic and syntactic qualities of text. Seldom did she respond unpredictably to the question "Does the miscue make sense?" The extent to which her answers were predictable, of course, paralleled the extent to which they matched the researcher's judgments of what made sense.

Marianne, on the other hand, rather frequently made judgments which did not coincide with the researcher's, and she vigorously and elaborately justified her evaluations of those miscues. In so doing, she caused the researcher to reexamine her own model of the reading process, placing a premium on the reader's judgment of what makes sense and clarifying the role of the teacher in helping readers improve their reading. This issue will be discussed further in Chapter 7.

**RMA Session No. 1.** Fifteen miscues were selected from Marianne's reading of "The Wreck of the Zephyr" for her first RMA session. Ten of them were selected as evidence of effective and efficient reading strategies; five were examples of ineffective strategies. Marianne was less tentative than Gloria in asserting that her miscues made sense, but, in this
initial RMA session, she frequently did not elaborate about her reasons for believing miscues made sense. When she did offer an explanation, it was usually to argue that the miscue made sense with the text leading up to it, even though subsequent text rendered the miscue untenable. Following are examples of these remarks:

Question: Does the miscue make sense?

Figure 6.15
Marianne's Miscue No. 15

Marianne: Yeah. Until you get to the word "wind."

Figure 6.16
Marianne's Miscue No. 16

Marianne: I was thinking about the sailor going to bed, but it falls apart at "went the boy to bed."
Surely the men of the island never dared fly so high.

Figure 6.17
Marianne's Miscue No. 17
Marianne: No. Falls apart at "never."

Marianne quickly realized that prediction was a component of the reading process, although it was not yet clear whether she recognized the value of this strategy. She also, in this first session, coined the term "stopper" to refer to the point in the text which signals that a miscue has been made and correction is necessary.

Despite frequent assertions that her miscues made sense, Marianne's belief that text should be flawlessly reproduced was revealed in her responses to the question "Was the miscue corrected? Should it have been?" Consider the following comments:
Question: Should it have been corrected?

He seemed to be reading my mind when he did not correct it. He said, "Odd, isn't it?"

Figure 6.18
Marianne's Miscue No. 18

Marianne: Yeah, because the way the guy wrote the book it said "odd" instead of "old," and I switch small words like that.

When the boy opened his eyes, he found himself lying on a beach.

Figure 6.19
Marianne's Miscue No. 19

Marianne: Yeah, because it's not the word the author put there. I usually, when it comes to small words, put in the one I want and not the one they write.

In response to the question "Why do you think you make the miscue?" Marianne frequently stated that she was "trying to rush through," or that she was "skipping words." She had not yet recognized that many of her miscues were the result of legitimate, but inaccurate predictions, and that prediction was an essential component of proficient reading.
Like Gloria, Marianne was able early in the RMA sessions to point out the redundancy in text, often stating that meaning was not affected, even by miscues which were not semantically acceptable and were not corrected:

Question: Did that miscue affect your understanding of the text?

One morning, under an ominous sky, he prepared to take his boat, the Zephyr, out to sea.

Figure 6.20
Marianne's Miscue No. 20
Marianne: No. Because I already knew what the sky was like.

It was surrounded by a treacherous reef.

Figure 6.21
Marianne's Miscue No. 21
Marianne: No. Because they keep bringing up the same thing through the story. If you don't get it there you'll get it later on anyway.
He steered for the open sea, but the trees at the cliff's edge stood between him and the water.

Figure 6.22
Marianne's Miscue No. 22

Marianne: No. The sentence before said he wanted to head back to sea.

The researcher's NOTES after this session included the following:

1. Where Gloria almost always said "No, it doesn't make sense," Marianne tends to say "Yeah"—affirming sometimes the strategy as much as the quality of the miscue.

2. Marianne's concept of "stoppers" is a good one. A metacognitive strategy???

RMA Session No. 2. This session was based on Marianne's reading of "My Brother is a Genius," a 1,873-word short story. In this session, Marianne began to strengthen her resolve that many of her miscues made sense. The miscues in this session were selected from the first two pages of the text because they demonstrated a chronological progression from low- to high-quality miscues. She offered the following rationales for why her miscues made sense:
Question: Does the miscue make sense?

"Philosophical: showing calmness and courage in the face of ill fortune."

Figure 6.23
Marianne's Miscue No. 23

Marianne: At the time it did... Going over it now it doesn't make that much sense.

"Go ahead and cry! Cry all you want to!"

Figure 6.24
Marianne's Miscue No. 24

Marianne: Sounds better with "So."

Andrew stopped crying and tried to take hold of the dictionary.

Figure 6.25
Marianne's Miscue No. 25

Marianne: Yeah, because he's holding it and I think it sounds like it's his.
I guess they do have a soothing sound.

Figure 6.26
Marianne's Miscue No. 26

Marianne: Yeah. The two words sorta seem like they're meaning the same thing at the time you're reading.

You don't have to be a genius to win the prize, just smart enough to plan something really interesting and original.

Figure 6.27
Marianne's Miscue No. 27

Marianne: Yeah. You said earlier "original" but you also want a project that's organized and interesting.

Furthermore, she no longer insisted that all of her miscues should have been corrected:
Question: Should the miscue have been corrected?

Andrew stopped crying and tried to take my hold of the dictionary.

Figure 6.28
Marianne's Miscue No. 28

Marianne: Didn't really matter.

I guess they do have a soothing sound.

Figure 6.29
Marianne's Miscue No. 29

Marianne: Sounded pretty good.

Besides, our teacher says if you know English how to think and know enough words to express your thoughts, there isn't anything you can't say or do.

Figure 6.30
Marianne's Miscue No. 30

Marianne: I made it come out making sense.
I don't know about that, but I know we get a good education in our school.

Figure 6.31
Marianne's Miscue No. 31
Marianne: The kid could be saying "all the schools."

And, Marianne continued to respond with the entire story in mind when asked the following question:

Question: Did that miscue affect your understanding of the text?

"If it bothers you to think of it as baby sitting," my father said, "then don't think of it as baby sitting.

Figure 6.32
Marianne's Miscue No. 32
Marianne: Not that much because it goes on and tells what's happening in the story.
You just happen to do your studying in
the room where your baby brother is
sleeping.

Figure 6. 33
Marianne's Miscue No. 33

Marianne: Not that much because it talks more in the story about the baby brother.

Researcher NOTES contained the comment that Marianne and Gloria both seemed to react to grammatical acceptability when answering the question "Does the miscue make sense?" They often mention whether miscues "sound right" in the context of the sentence.

RMA Sessions Nos. 3 through 11. Examples from several RMA sessions will be cited to confirm Marianne's growing sense of ownership over the reading process. Beyond the second session, Marianne seldom insisted she needed to correct miscues which were fully semantically acceptable. Even when miscues had no apparent justification, Marianne frequently rationalized her judgments about making sense, and her rationales were usually convincing.
Question: Does the miscue make sense?

Wood accused his step-mother of duplicity and unorthodox conduct as a married woman.

Figure 6.34
Marianne's Miscue No. 34

Marianne: Something's that's unorthodox would probably also be unauthorized. It's saying the same thing.

The James boys deemed it unwise to linger even within the confines of their native state of Missouri, even though they knew every trail and hideaway, and had countless friends to depend upon.

Figure 6.35
Marianne's Miscue No. 35

Marianne: Yeah. Because if they used their regular trails [instead of the highway] they would run into lawmen looking for them.
He looked across the room and discovered that one of his students was dozing off in his class.

**Figure 6.36**
Marianne's Miscue No. 36

Marianne: Yeah. The teacher could be looking at him and saying "I don't know if he's already asleep or if he's falling asleep," and then decide he's asleep...

He decided to take some time off to find out who or what was committing these strange crimes.

**Figure 6.37**
Marianne's Miscue No. 37

Marianne: Yeah. The police officer could be looking at crime files, but you commit crime and somebody makes a case out of it.

But look, the indoors is for raising hamsters, not cattle.

**Figure 6.38**
Marianne's Miscue No. 38

Marianne: Yeah. Athletes are in indoor pavillions, doing stuff like strengthening their hamstrings.
What is important to note is that retrospective miscue analysis as an instructional technique was teaching Marianne that she is in control of what makes sense, and that it is her obligation to monitor understanding as she reads. Any attempt to dissuade her in her judgments about whether miscues made sense would have once again made her dependent upon someone else to determine whether what she was reading made sense to her. Retrospective miscue analysis was designed to make readers less, not more, dependent on others.

Even if a particular miscue didn't perfectly fit the sentence in which it was found, it was often conceptually in line with the text as a whole, and Marianne would justify it on those grounds. For example:
Question: Does the miscue make sense?

Happily, this outdoor rodeo is still more down-home than uptown, and there isn't a set bad seat in the house.

Figure 6.39
Marianne's Miscue No. 39

Marianne: Yeah. They could be talking about the way they run the show--what they're going to do and how they're going to do it--how they set it up.

Figure 6.40
Marianne's Miscue No. 40

Marianne: Yeah. Sounds just the same. They're talking about the same thing.
It's not fancy, but the arena was built for rodeo and there isn't a bad seat in the place.

Figure 6.41
Marianne's Miscue No. 41

Marianne: Yeah. The rodeo arena is in the rodeo area so they refer to the same place.

Major Hite was an uncle of the two James Boys, Frank and Jesse, having married the sister of the Rev. Robert James, father of the two outlaw brothers.

Figure 6.42
Marianne's Miscue No. 42

Marianne: They're both boys--means about the same thing.
It is said that Mrs. Hite hated her step-son and did everything possible to increase that hate.

Figure 6.43
Marianne's Miscue No. 43

Marianne: She's really trying to build up hate, and trap him. She could use hate as a trap, like a weapon.

Several of Marianne's responses to the question "Does the miscue make sense?" reveal her ever-increasing confidence in reading. So sure of herself had Marianne become that she made the following comments in the midst of RMA sessions:

Figure 6.44
Marianne's Miscue No. 44

Marianne: I didn't think it needed "his." The author already said it in the first part. Hey! They oughta send their books to me first! I know how they should sound.
A lot of money has been pumped into the professional rodeo circuit, which attracts a lot of cowboys who not only love what they do, but also can make a decent living doing it.

Figure 6.45
Marianne's Miscue No. 45
Marianne: They're talking about the same thing. I still say the author should've used my word!

Mexico is known as the refuge where the James brothers found sanctuary from the lawmen who hunted their outlaw trail.

Figure 6.46
Marianne's Miscue No. 46
Marianne: Hounded doesn't really sound like it would fit.
He was going to teach something to his 
stubborn  
stupid students.

Figure 6.47  
Marianne’s Miscue No. 47  

Marianne: I think it sounded better with the students being "stubborn."

One child, in particular, Wrondel McMillian, loved his Cabbage Patch doll and treated his doll, Dexter Jones, like one of his very own brothers.

Figure 6.48  
Marianne’s Miscue No. 48  

Marianne: "Kid" makes more sense—more personal than "child."

Discussion. Marianne had become very personally involved in analyzing her own reading and in making her own evaluations about which strategies were working well for her and which were ineffective. She invented the notion of "stoppers" and learned that if she were monitoring comprehension, the text itself would usually signal when a semantically or syntactically unacceptable
miscue had been made. Marianne's own evaluation of retrospective miscue analysis is presented in the following section.

The Closing Interview

During the final session conducted with Marianne, she was interviewed extensively about her reactions to RMA used as an instructional strategy. Also explored were her self-perceptions about her reading ability and her potential for continuing to improve her reading. Several questions from the Burke Interview Modified for Older Readers (Appendix B) were asked in order to compare her responses with those she provided at the outset of the study. Also asked were questions from the Closing Interview (Appendix C). Several of Marianne's responses to these questions are presented below.

Question: When you are reading and you come to something that gives you trouble, what do you do?

Marianne: Try to put a word I know into it.

Question: Anything else?

Marianne: Skip it.

Question: Are those helpful strategies, or not so helpful strategies?

Marianne: Some of it's good because if you skip one word you can pick up in the story what they're talking about and understand it.
Marianne has recognized that words can be understood from their context; not knowing an individual word is no longer a sufficient cause for her to stop reading. She does not stress the importance of consulting a dictionary when in trouble, as she did at the beginning of the study. However, she has not abandoned her notion that getting help from another source is valuable:

Question: If you knew someone who was having difficulty reading, what would you do to help?

Marianne: Encourage them to read, practice reading.

Question: What if they came to something they didn't know?

Marianne: Tell them to ask someone to help them.

Question: What if they were all alone?

Marianne: Tell them to skip it.

Question: What should they be thinking about the whole time they're reading?

Marianne: Just making sense of the story and understanding what the author wants them to understand. But it's okay if they have to switch some words and stuff.

She asserts the value of consulting some other person when readers have difficulty, but she seems to have lost her belief in the absolute value of a dictionary. She stresses that "making sense" is the most important strategy a reader can use continuously, and she realizes that in the process of focusing on "making sense" the reader will make miscues.
By her own admission, Marianne felt more confident about her reading than she did in the beginning:

Question: Is there anything you would like to change about your reading at this point?
Marianne: No. I'm better at it.

Question: Describe yourself as a reader.
Marianne: Pretty good, getting better.

Marianne was also asked specifically about any changes in the reading strategies she employs:

Question: Have there been changes in how you read as a result of what we've been doing?
Marianne: I slow down on what I want to read and I try to understand. Before I used to read just to get to know the words. But now it's like "read this and try to understand it."

Question: What kinds of miscues do you make now, as compared with the beginning?
Marianne: In the beginning I was making them with non-words. Now I'm putting more words in which make the sentence sound better, or pretty close to what the author wanted.

These responses further confirm that Marianne has moved to a "meaning construction" model of the reading process. And it is clear that the "good reader" myth she has believed in has been somewhat disconfirmed. She no longer berates herself for failing to know all the words or for failing to look them up in dictionaries. Rather, she now concentrates on understanding what she
reads, and believes that a focus on meaning will hold the key to improving her reading:

Question: How do you feel about your ability to continue to improve your reading?

Marianne: I can do it, it will take a lot of practice and reading a lot on my own.

Once again, the importance of "practice" has been emphasized, but not the kind of practice which requires assistance from a teacher. Marianne knows she must read "a lot" on her own.

At the outset of her participation in this study, Marianne stated that teachers never helped her very much as she tried to learn to read. There was apprehension on the part of the researcher, who suspected that Marianne might be resentful of yet another "teacher" who would not help--at least not in the ways Marianne would recognize as "help." As Marianne evaluated the usefulness of retrospective miscue analysis as an instructional strategy, she was clear in her differentiation between "teachers" and the researcher in this case.

Question: In general, how do you feel about these kinds of sessions?

Marianne: I'm coming here and getting help. But if you said "Now, here's your homework, take it home and do it" it would be like "Oh gee, we're back in school with all this stuff." You'd be sort of turning them off because you'd be handing them alot of homework. I think this way is alot better because the person will feel like "Oh gee, I just read this and I won't have
to be pressured by all the questions to answer." Here, you say "Well, read this and we will talk about it next week. Just remember what you read." Which to me is a little more personal, more fun. It's like she's getting you to learn something, but in a whole different way.

Researcher: What I've really tried to do is not have me teach you anything, but have you learn something from doing your own analysis. You've decided for yourself for each miscue which things are positive about them and which things aren't useful.

Marianne: Your way is different from a schoolteacher's. Their way is "Okay, read Chapter 1 and we'll talk about it tomorrow." But you only see me once a week. And I have a whole week to think about the story and the way it affected me when I was reading it, and the way I thought the author should have written it, or what I thought it should have sounded like.

Then I come back the next time, and we get to talk about it. You come up with all these miscues, and I'm thinking, "Can we fix these or does this make sense?" If I was with a schoolteacher, she would say, "This is a miscue. This is wrong. Why don't you read what the author put there?" They automatically say, "This is what the author wrote and I want it said just this way."

Researcher: The author's right. The reader's wrong.

Marianne: Yeah. The way your method goes, I think "This is what the reader wanted it to be, not what the teacher or the author wanted, but this is the way the reader is reading, and this is how the reader feels about it."

Researcher: You are so articulate. It has taken me a long time to learn what you just said. No matter what anybody thinks, reading happens all alone, up inside our heads. There's nobody else in there. The text is only marginally in there. If we don't like it, we change it.
Marianne: We change it. I do it. Everybody does it.

Discussion. Marianne has assumed ownership of her reading in the most complete sense. She places herself firmly among the community of readers ("I do it. Everybody does it."), no longer an outsider in a literate society.

Changes in Strategies Utilized in the Reading Process

Marianne was able by the conclusion of this study to verbalize a model of the reading process which stresses that reading for meaning is the key to reading effectively. Miscue analysis data collected for the 12 texts she read during this research will demonstrate how her changes in beliefs about the reading process were reflected in changes in her reading ability.

The Procedure

Procedure I of the Reading Miscue Inventory was used to analyze the 777 miscues Marianne generated. Unassisted by the researcher, Marianne read 12 complete texts and for each text provided a retelling of what she had read. Each miscue was then analyzed using the method described in Chapter 3. Details from the miscue analysis data are provided below.
The Texts

Marianne read a total of 12 texts throughout her participation in this study. During her initial interview, she stated that her favorite reading material (when she chose to read) was "Westerns"; consequently, several of the stories she selected to read were from her grandmother's copies of "Real West" magazine. A second group of stories she brought to read were contained in an anthology of stories written by a sophomore class from the high school her brother was attending. The only story she had ever attempted to read from that anthology was the one written by her brother, so it was not selected for a miscue analysis taping. Four of the texts ("The Wreck of the Zephyr," "My Brother is a Genius," "The Reno Rodeo," and "The Man Who Kept House") were selected by the researcher. Like Gloria, Marianne was asked to read "Zephyr" as both her first and last story.

A list of the texts Marianne read throughout the research is presented below. The relative difficulty of the 12 texts is indicated by levels computed according to the Fry readability formula.
<table>
<thead>
<tr>
<th>Session Sequence No.</th>
<th>Abbreviated Title</th>
<th>No. Words</th>
<th>Readability Level</th>
</tr>
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<tbody>
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<td>Zephyr (first reading)</td>
<td>1,270</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(7-5-86)</td>
<td></td>
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<td>2</td>
<td>Genius (7-11-86)</td>
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<td>6-7</td>
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<td>Rodeo (7-18-86)</td>
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<td>Mexico (9-5-86)</td>
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</tr>
<tr>
<td>7</td>
<td>Clan (9-26-86)</td>
<td>1,032</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Kept House (10-10-86)</td>
<td>750</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Brain (10-17-86)</td>
<td>1,898</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>Game (10-24-86)</td>
<td>1,161</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>Cabbage (11-7-87)</td>
<td>889</td>
<td>9</td>
</tr>
<tr>
<td>12</td>
<td>Zephyr (second reading)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(11-13-87)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These texts have been grouped into the following five levels so that texts of a particular level of difficulty may be compared to texts of similar difficulty.
<table>
<thead>
<tr>
<th>Group No.</th>
<th>Readability Level</th>
<th>Title</th>
<th>Session Sequence No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>Kept House</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Zephyr (first reading)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clan</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zephyr (second reading)</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Genius</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brain</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Game</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Rodeo</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gun</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cabbage</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>College</td>
<td>Scandal</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico</td>
<td>6</td>
</tr>
</tbody>
</table>

The Analyses

Marianne made a total of 777 miscues during her reading of the 12 texts referred to above. Each of those miscues was analyzed using Procedure I of the Reading Miscue Inventory, and the results are summarized in the following tables. Though the texts are grouped according to relative difficulty, within each group the texts are listed in the order in which Marianne read them.
Table 6.1  
Marianne’s Meaning Construction

<table>
<thead>
<tr>
<th>Title</th>
<th>Miscues Per Hundred Words</th>
<th>No Loss</th>
<th>Partial Loss</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kept House</td>
<td>3.2</td>
<td>92%</td>
<td>--</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Group 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zephyr (#1)</td>
<td>6</td>
<td>47%</td>
<td>8</td>
<td>45%</td>
</tr>
<tr>
<td>Clan</td>
<td>5.4</td>
<td>70%</td>
<td>1</td>
<td>29%</td>
</tr>
<tr>
<td>Zephyr (#2)</td>
<td>4.3</td>
<td>72%</td>
<td>6</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Group 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genius</td>
<td>7.7</td>
<td>59%</td>
<td>10</td>
<td>31%</td>
</tr>
<tr>
<td>Brain</td>
<td>4.9</td>
<td>58%</td>
<td>8</td>
<td>35%</td>
</tr>
<tr>
<td>Game</td>
<td>4.7</td>
<td>60%</td>
<td>9</td>
<td>31%</td>
</tr>
<tr>
<td><strong>Group 4</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rodeo</td>
<td>9.1</td>
<td>27%</td>
<td>12</td>
<td>61%</td>
</tr>
<tr>
<td>Gun</td>
<td>8.4</td>
<td>45%</td>
<td>3</td>
<td>52%</td>
</tr>
<tr>
<td>Cabbage</td>
<td>6.7</td>
<td>59%</td>
<td>2</td>
<td>39%</td>
</tr>
<tr>
<td><strong>Group 5</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scandal</td>
<td>8.7</td>
<td>15%</td>
<td>17</td>
<td>68%</td>
</tr>
<tr>
<td>Mexico</td>
<td>8.6</td>
<td>32%</td>
<td>4</td>
<td>64%</td>
</tr>
</tbody>
</table>
### Table 6.2
Marianne's Grammatical Relationships

<table>
<thead>
<tr>
<th>Title</th>
<th>Miscues Per Hundred Words</th>
<th>Grammatical Relationships</th>
<th>Over Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strength</td>
<td>Partial Strength</td>
<td>Weakness</td>
</tr>
<tr>
<td>Group 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kept House</td>
<td>3.2</td>
<td>84%</td>
<td>8%</td>
</tr>
<tr>
<td>Group 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zephyr (#1)</td>
<td>6</td>
<td>51</td>
<td>22</td>
</tr>
<tr>
<td>Clan</td>
<td>5.4</td>
<td>71</td>
<td>9</td>
</tr>
<tr>
<td>Zephyr (#2)</td>
<td>4.3</td>
<td>72</td>
<td>13</td>
</tr>
<tr>
<td>Group 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genius</td>
<td>7.7</td>
<td>64</td>
<td>19</td>
</tr>
<tr>
<td>Brain</td>
<td>4.9</td>
<td>58</td>
<td>14</td>
</tr>
<tr>
<td>Game</td>
<td>4.7</td>
<td>69</td>
<td>16</td>
</tr>
<tr>
<td>Group 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rodeo</td>
<td>9.1</td>
<td>32</td>
<td>38</td>
</tr>
<tr>
<td>Gun</td>
<td>8.4</td>
<td>45</td>
<td>41</td>
</tr>
<tr>
<td>Cabbage</td>
<td>6.7</td>
<td>60</td>
<td>26</td>
</tr>
<tr>
<td>Group 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scandal</td>
<td>8.7</td>
<td>28</td>
<td>54</td>
</tr>
<tr>
<td>Mexico</td>
<td>8.6</td>
<td>36</td>
<td>38</td>
</tr>
</tbody>
</table>
Table 6.3
Marianne's Graphic and Sound Similarity

<table>
<thead>
<tr>
<th>Title</th>
<th>Graphic Similarity</th>
<th>Sound Similarity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Some</td>
</tr>
<tr>
<td><strong>Group 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kept House</td>
<td>58%</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Group 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zephyr (#1)</td>
<td>83</td>
<td>11</td>
</tr>
<tr>
<td>Clan</td>
<td>71</td>
<td>23</td>
</tr>
<tr>
<td>Zephyr (#2)</td>
<td>65</td>
<td>27</td>
</tr>
<tr>
<td><strong>Group 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genius</td>
<td>73</td>
<td>21</td>
</tr>
<tr>
<td>Brain</td>
<td>68</td>
<td>27</td>
</tr>
<tr>
<td>Game</td>
<td>56</td>
<td>36</td>
</tr>
<tr>
<td><strong>Group 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rodeo</td>
<td>64</td>
<td>27</td>
</tr>
<tr>
<td>Gun</td>
<td>81</td>
<td>15</td>
</tr>
<tr>
<td>Cabbage</td>
<td>64</td>
<td>34</td>
</tr>
<tr>
<td><strong>Group 5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scandal</td>
<td>75</td>
<td>21</td>
</tr>
<tr>
<td>Mexico</td>
<td>70</td>
<td>30</td>
</tr>
</tbody>
</table>
Group 1. The eighth text read by Marianne during the course of this study was "The Man Who Kept House," estimated to be at third grade level according to the Fry readability formula. It was the only text Marianne read at this level of difficulty, and the miscue analysis data points to the ease with which Marianne was able to read this particular text. Her number of miscues per hundred words was 3.2, the lowest at any point in the study (Table 6.1). Ninety-two percent of her miscues were likely to result in no loss of comprehension (Table 6.1), and 84% of her miscues demonstrated strength in controlling the grammatical relationships in the text (Table 6.2). These two percentages are higher than any other percentages in their respective categories.

Fifty-eight percent of her miscues showed high graphic similarity to the text, and 21% were highly similar in sound (Table 6.3). These two percentages are among the lowest in their categories, demonstrating that as Marianne moved toward making miscues which make sense she also moved away from an overreliance on the graphophonic cueing system.

Group 2. The three texts in this group, each calculated at fifth grade readability, consist of two readings of "The Wreck of the Zephyr," and a third text, a short story titled "The Clan Revisited." The "Clan"
text, along with three others Marianne selected, is from an anthology of short stories written by a sophomore high school class. Across time at this level of difficulty, Marianne has reduced her miscues per hundred words from 6 in "Zephyr (#1)," to 5.4 in "Clan," and, finally to 4.3 in "Zephyr (#2)." There was a steady increase in miscues which suggest no loss in comprehension: 47% in "Zephyr (#1); 70% in "Clan"; and 72% in "Zephyr (#2); and a decrease in miscues likely to result in loss of comprehension: 45% in "Zephyr (#1); 29% in "Clan"; and 22% in "Zephyr (#2)" (Table 6.1).

Concurrent with the increase in "meaning construction" strategies was an increase in miscues which reflect strength in maintaining structures that are syntactically acceptable: 51% in "Zephyr (#1); 71% in "Clan"; and 72% in "Zephyr (#2)" (Table 6.2). Weakness in controlling syntactic relationships in text decreased from 27% in "Zephyr (#1)," to 20% in "Clan," to 13% in "Zephyr (#2)" (Table 6.3).

Marianne's declining reliance on the graphophonic cueing system is apparent in the percentages of high graphic and sound similarity. In "Zephyr (#1)" 83% of miscues showed high graphic similarity and 60% reflected a high sound similarity. Those percentages were lowered to 71% and 52%,
respectively, in "Clan," and to 65% and 45%, respectively, in the second reading of "Zephyr."

**Group 3.** The three texts in Group 3 contain one selected by the researcher, "My Brother is a Genius," and two selected by Marianne from the high school short story anthology. Each of these texts was estimated to be at seventh grade reading level. Marianne reduced her level of miscues per hundred words from 7.7 in "Genius," to 4.9 and 4.7 in "Brain" and "Game," respectively (Table 6.1). This nearly 40% reduction in miscues was accompanied by only slight increases in miscues which reflect no loss of comprehension: 59% in "Genius"; 58% in "Brain"; and 60% in "Game" (Table 6.1). Slightly greater improvement in reading strategies was indicated in Marianne's control over grammatical relationships. Sixty-four percent of miscues showed "strength" in "Genius," 58% in "Brain," and 69% in "Game."

Marianne's focus on graphophonic cues declined in this group of texts. Graphic similarity was high for 73% of the miscues in "Genius," 68% in "Brain," and 56% in "Game." Sound similarity decreased as well, from 58% of miscues highly similar in "Genius," to 52% in "Brain," and 40% in "Game" (Table 6.3).

**Group 4.** This group of texts, each estimated to be at ninth grade readability, contain a magazine article titled "Reno Rodeo," a short story by Louis
L'amour titled "A Gun for Kilkenny," and a short story from the high school anthology, "Revenge of the Cabbage Patch Dolls." Each of these texts was chosen by Marianne.

More so than the Group 3 texts, this group provides solid evidence of improvement in Marianne's reading strategies. She made 9.1 miscues per hundred words in "Rodeo," lowering that rate to 8.4 in "Gun," and 6.7 in "Cabbage" (Table 6.1).

In the category of "Meaning Construction" Marianne increased the percentage of miscues likely to result in no loss of comprehension from 27% in "Rodeo" to 45% in "Gun" and 59% in "Cabbage" (Table 6.1). Miscues likely to result in a loss of comprehension declined from 61% to 39% in these same three texts.

The category of "Grammatical Relationships" shows an increase in miscues which demonstrate "strength" from 32% in "Rodeo," to 45% in "Gun," and, finally, to 60% in "Cabbage" (Table 6.2). Miscues which suggest "weakness" in controlling syntactical relationships in text declined from 27% in "Rodeo," to 14% and 12% in "Gun" and "Cabbage," respectively (Table 6.2).

Marianne's reliance on phonic cues also decreased--55% of miscues showed high sound similarity in "Rodeo," and 45% showed high similarity in "Cabbage."
A particularly high percentage of miscues in "Gun" showed high graphic similarity to the text; the other two texts were stable at 64% (Table 6.3).

**Group 5.** "Jesse James in Mexico" and "The Missouri Scandal" were both selected by Marianne, and each was published in an early 1960's issue of "Real West" magazine. These stories, along with the "Reno Rodeo" article and "A Gun for Kilkenny" reflected Marianne's interest in learning to read Westerns. It is important to note that both "Mexico" and "Scandal" were estimated to be at the college level, and, indeed, they were particularly difficult. Archaic vocabulary and unpredictable syntax resulted in Marianne's relatively high 8.7 and 8.6 miscues per hundred words (Table 6.1), but she was able to improve the quality of those miscues over time—in this instance, a two-week span. A mere 15% of miscues in "Scandal" suggested no loss in meaning; that percentage rose to 32% in "Mexico." Only a slight decline in miscues resulting in loss of meaning was evident, from 68% in "Scandal" to 64% in "Mexico" (Table 6.1).

Marianne showed some improvement in her ability to control syntax. Twenty-eight percent of miscues in "Scandal" reflected strength in controlling grammatical relationships, rising to 36% in "Mexico." However, there was an accompanying increase in miscues which
suggested "weakness," from 18% in "Scandal" to 26% in "Mexico" (Table 6.2).

Seventy-five percent of miscues in "Scandal" were highly similar in graphic features to the text; 70% were highly similar in "Mexico." Sound similarity was also reduced, from 56% in "Scandal" to 49% in "Mexico" (Table 6.3).

**Discussion.** At every level of text difficulty Marianne encountered, she was able to demonstrate increasing effectiveness in at least one aspect of her reading. Miscues per hundred words frequently declined, while the numbers of high-quality miscues increased. The improvement in reading strategies was paralleled by her movement from a model of the reading process which emphasized accuracy in word recognition, to one which focuses on the construction of meaning. Like Gloria, Marianne was very motivated in her desire to become a better reader, and she also lived in a print-rich environment. But all the instruction she received prior to working with the researcher was aimed at using skill-and-drill or a kinesthetic approach to cure her dyslexia. During the course of this study, she was receiving no other instruction of any kind. No rival hypothesis exists to explain her reading development, and although a cause-and-effect relationship between
retrospective miscue analysis and her improved reading strategies cannot be positively stated, it appears likely that one exists.
CHAPTER 7
REVALUING READERS AND READING

Summary of the Study

This study was concerned with an analysis of retrospective miscue analysis used as an instructional strategy with adult readers. Retrospective miscue analysis procedures were piloted with an adult reader, and protocols for questioning and recording retrospective data were developed. The technique was then studied in-depth with two other research subjects, one a forty-one year old woman and the other a twenty-one year old woman. Each subject participated in approximately weekly sessions with the researcher, and during those sessions they analyzed tape-recordings of the previous week's reading. Comments from their analyses were recorded on the "Retrospective Responses" protocol, and each text read was analyzed using the Reading Miscue Inventory Procedure I. A total of twenty retrospective miscue analysis sessions were conducted and analyzed, and twenty-two texts were read and analyzed. The two subjects combined made a total of 1,520 miscues, and each miscue was analyzed using Procedure I of the Reading Miscue Inventory. These
analyses were performed in order to explore the following question: How does retrospective miscue analysis as an instructional strategy influence both the reading process and the perceptions readers hold about that process? This major question was investigated through answering several specific questions:

1. How do adults who contact a college remedial reading center for assistance describe the reading process and their strengths and weaknesses as readers?

2. What are those adults’ strengths and weaknesses in reading as revealed through analysis using the Reading Miscue Inventory?

3. What changes occur in the adults’ perceptions and processes described in questions 1 and 2 over the period of this research?
   a. To what extent can these changes be attributed to retrospective miscue analysis used as an instructional strategy?
   b. What other influences can be identified? To what extent can the changes in perceptions and processes be attributed to these additional influences on reading development?
Discussion of Results

Development of the Retrospective Miscue Analysis Strategy

A preliminary case study conducted with Carmen and described more fully in Chapter 4 led the researcher to revise the retrospective miscue analysis (RMA) procedures previously cited in the literature (Miller and Woodley, 1983; Stephenson, 1980; Worshop, n.d.). One question, "Does the miscue sound like language?", was eliminated, and two other questions were added: "Why do you think you made that miscue?" and "Did that miscue affect your understanding of the text?"

RMA sessions were conducted in either the subject's or the researcher's home, on a one-to-one basis. Sessions were conducted one to two weeks apart, and the subjects were participating in no other instructional context. Reading material for the sessions was selected by both the researcher and the subjects, although the majority of texts were selected by the subjects. The texts ranged in difficulty from third grade readability through college level and included both fiction and nonfiction.

RMA sessions usually lasted from between 60 and 90 minutes. During those sessions, readers first analyzed their own reading from the previous week, and then read a new selection for the subsequent week’s RMA
session. Following are some specific conclusions about the use of retrospective miscue analysis as an instructional strategy.

First, it is important to reiterate that the researcher, in acting as a director of these sessions, carefully selected the miscues which were to be the focus of RMA sessions. In previous research using the RMA technique, readers were allowed to listen to tape-recorded readings and to select for themselves the miscues they wished to analyze. Research has documented, however, that lower quality miscues are frequently made in the beginnings of text, before readers have had an opportunity to adjust to the style of the writer and the content of the text. Furthermore, high-quality miscues are those which most frequently go unnoticed by listeners. Therefore, in order that readers be given an opportunity to observe and analyze those strategies which were leading to high-quality miscues, the researcher pre-selected miscues for RMA sessions. The sessions themselves often took a particular focus, and miscues which were related to that focus were selected for analysis. For example:

Gloria, RMA #2: Substitutions that do/don't make sense.

Gloria, RMA #3: When she does/doesn't correct omissions and substitutions.
Gloria, RMA #4: Focus on efficiency--how she doesn't correct when unnecessary.

Gloria, RMA #5: Focus on manipulation of syntax in insertions and omissions.

Gloria, RMA #6: Focus on persistence--when it pays off and when it doesn't (depends on whether words are in her oral vocabulary).

Marianne, RMA #2: Progression of quality in miscues as text progresses.

Marianne, RMA #3: Moving from nonsense to real words.

Marianne, RMA #6: Focus on effective/efficient corrections.

The researcher took an active role in organizing the sessions so that readers might discover for themselves which strategies they were already using were in fact efficient and effective. The researcher also took advantage of so-called teachable moments during the retrospective sessions. As issues related to reading arose in the midst of discussions about specific miscues, the researcher shared what she knew about reading, about readers, and about teaching, in much the same way that other professionals share what they know with their clients. Following is a sample of these contentions, along with portions of the RMA transcripts where the points were discussed. The relevant miscues are presented as figures.
ALL READERS MAKE MISCUES.

Figure 7.1
Miscue Example No. 1

Gloria: ...All I have to do is sit here.... Yes, I would say "to sit here."

Researcher: Do you need to correct it?

Gloria: No.

Researcher: Why do you think you are doing all of these? Why do you say "housekeeping" instead of "keeping house"? Why do you leave out "so"; why do you say "I'll" instead of "I'd"?

Gloria: I don't say "I'd," that's why. Really what I am doing is taking this story into my hands a bit. Whether a school teacher would correct it or not I don't know.

Researcher: A teacher who knew what she was doing would leave you alone. She would know that the best readers in her class do the same thing. You know what happens, Gloria? No one sits down and reads one-on-one with the best readers. If you've got it mastered by 4th grade, no one ever listens to you read again, except when they ask you to read a story or passage to the class. Usually no one else has copies of what you're reading, so they don't know when you insert a "to" that makes sense. Sometimes teachers have this whole bag of stuff they carry around, saying that bad readers make these mistakes, bad readers do this, and bad readers do that. They are spending all their recess time with the bad readers. They don't know that the good readers are also making mistakes, just different kinds.
IT IS THE VARYING QUALITY OF MISCUES THAT SEPARATES GOOD READERS FROM POOR READERS.

Already a strong wind was blowing.

Figure 7.2
Miscue Example No. 2

Researcher: Did you need to correct that one?

Marianne: Yeah, to make the sentence come out right.

Researcher: What else could you have done if you didn’t want to correct it? Could you have made another miscue in order to make it work?

Marianne: Yeah.

Researcher: What would it have been?

Marianne: Just left out "wind."

Researcher: So you could have done two different things there and kept it all intact, had it make sense, and go on. I want you to remember that, because there's a time or two later on when you do just that. One miscue gets you to a point, so you go ahead and commit another one in order to make it go for you, which is what good readers do. They make a lot of substitutions, which is one word for another, and a lot of omissions. But they do it in such a way that they leave a sentence that has made sense. So that's a good kind of strategy.
MAKING PREDICTIONS AS WE READ IS WHAT ALL READERS DO; GOOD READERS ARE AWARE WHEN THEIR PREDICTIONS HAVE BEEN DISCONFIRMED.

Already a strong wind was blowing.

Figure 7.3
Miscue Example No. 3

Researcher: Did it make sense to say what you said?

Marianne: Yeah, until you got to "wind."

Researcher: And reading works that way, Marianne. We're all making predictions about what we think is going to be in the text. Nobody has time to stop and think about every word as though it's a surprise. We're always predicting, guessing what we think the next word is going to be. And it's not until you come up against a word that makes it not work that you have to back up and think again. Because we don't read letter by letter, we read thought by thought, basically, not even word by word. Here you are thinking about this angry sky and you know the boy is going to take some kind of big risk because that's what boys do in stories, so you made a really good prediction.

When the boy opened his eyes, he found himself lying on a beach.

Figure 7.4
Miscue Example No. 4

Researcher: Does that make sense?

Marianne: Yeah.
Researcher: Should you have corrected it?
Marianne: Yeah. I think I should have.
Researcher: Why?
Marianne: Because it's not the word the author put there. I usually, when it comes to small words, put in the one I want and not the one they write.
Researcher: Do you know what's neat about that? So do I. So does everyone. "The" for "a" is probably one of the most common miscues made by anyone. And that's because of what you said, that there isn't much difference in meaning. If you're thinking about making sense as you go along, it doesn't matter. There isn't anything that happens here that causes you to slam on the brakes and say, "Whooa, something's not making sense to me. I better back up." That's the kind of miscue good readers make. And they're not aware that they do it.
AS WE READ, WE OFTEN ALTER THE AUTHOR’S LANGUAGE TO FIT OUR HEAD, OUR DIALECT, OUR EXPERIENCES.

"I'd be glad to," said the wife.

Figure 7.5
Miscue Example No. 5

Researcher: Any difference there?
Gloria: I'd...I'll...isn't the same.

Researcher: Some kind of funny tense difference between I would and I will.
Gloria: I'll be glad to...I would say that more than I would say "I'd." I don't use the word "I'd."

Researcher: So here again you're translating it into your own dialect, which is the right thing to do if you're paying attention to making sense.
After all, it wasn’t Andrew’s fault that
I had to stay home with him.

Figure 7.6
Miscue Example No. 6

Marianne: Well I changed "I" to "he" and "Him" to "me". So it made the sentence correct.

Researcher: Uh...huh...

Marianne: If I would have changed one of them and not the other one, the sentence would be wrong.

Researcher: So does it make sense to do what you did?

Marianne: Yeah.

Researcher: [pointing to the marked miscues] Do these words look anything alike?

Marianne: No (laughs).

Researcher: Not a single letter in common in either one of them. So it isn’t letters you’re paying attention to, is it?

Marianne: No.

Researcher: What are you paying attention to?

Marianne: The way I felt the sentence should have been, to what made sense.
"You see," I said, "it helps me to remember the word definitions if I read them out loud."

Figure 7.7
Miscue Example No. 7

Researcher: And I know you know that word, because you say it several times later in the story.

Marianne: Yeah, I got it.

Researcher: And that's how text works. What's hard in the beginning is easier later on. Do you know what it is now?

Marianne: M......

Researcher: Well, what's the character doing? Think about what would make sense. What's he got in front of him?

Marianne: Dictionary.

Researcher: And what's he doing?

Marianne: Looking up definitions.

Researcher: Yeah. Well, the farther you get into the story the more clear that becomes, and that's why that word becomes easy for you, even though it's not easy for you there.

Marianne: Yeah.

Researcher: Because the text hasn't helped you enough yet. It hasn't given you enough clues.
Through discussions like these about specific miscues, issues about reading in general were often raised, and the researcher used those opportunities to attempt to redirect many of the misconceptions that the readers possessed about reading; e.g., that good readers know all the words, they never make miscues, they remember everything they read; that poor readers like themselves need to pay closer attention to the letters within words and practice reading with another person who can "tell" them the words.

For both readers, the RMA questions were quickly internalized, and the opening question "Does the miscue make sense?" usually prompted a full discussion of whether the miscue made sense, whether it was corrected, why the reader might have made it, and what the effect was on comprehension. The specific structure and order of RMA questions as proposed in this research was abandoned in order that the researcher could follow the lead of the readers in discussions about their miscues. Certainly, the same issues raised by the RMA questions were covered, though not in precisely the same order as outlined in the questioning protocol.

Conclusions regarding the specific RMA questions are presented below:

1. The question "Does the miscue make sense?" prompted readers to respond not only to the semantic
qualities of the miscue, but also to its syntactic qualities. Frequently, they made such comments as "Doesn't sound right" or "Sounds good to me," indicating that they were considering whether the miscue had syntactic qualities that were acceptable in their dialect of English. These remarks confirmed the researcher's original decision to eliminate the question "Does the miscue sound like language?" since that issue as an overt question appeared to confuse readers.

2. The question "Was the miscue corrected? Should it have been?" very often pointed out whether the reader was preoccupied with the flawless reproduction of text. It was in the context of these discussions that readers were helped to realize that all readers make miscues, and that one difference between good and poor readers is whether they correct miscues that do not make sense. Issues of efficiency in reading were also discussed in this context; readers were encouraged to consider that it is inefficient to correct miscues which are syntactically and semantically acceptable, and which do not affect meaning. It was emphasized, however, that the readers themselves must learn to monitor comprehension and be in control of deciding when what they are reading is making sense to them.

3. The question "Why do you think you made this miscue?" also served to illuminate the reader's model of
the reading process. In early RMA sessions, both subjects tended to respond to this question with criticisms of their abilities: "I'm careless"; "I'm not looking at the word closely enough"; "I always mix up small words"; "Those letters scare me." As RMA sessions progressed, however, both readers began to suggest that it was their processes of thinking and predicting which led them to miscue: "I was thinking about the title of the story"; "The previous sentence said "height" and height and weight go together"; "I was getting into the story and it didn't matter yet what I said."

4. Although the questions "Did the miscue look like the text? Sound like the text?" were originally proposed as part of the RMA questioning routine, they were infrequently asked. It was very clear in beginning RMA sessions with these two readers that each believed they needed to focus more intensely on graphophonic cues. The researcher calculated that asking the look like/sound like question might inadvertently serve to reinforce their beliefs that this cueing system needed more attention. Therefore, the issue of graphophonic similarity was discussed when it naturally arose as a response to "Why do you think you made this miscue?" and not often as an isolated issue.

5. It was in the context of responding to the question "Did that miscue affect your understanding of
the text?" that both readers began to realize the relative unimportance of any one word in a text. Gloria in her initial reading interview stated that if she encountered a word she didn't know, she would "close the book up." Both she and Marianne, however, gradually began to argue that a particular miscue seldom affected their understanding of text--that the redundancy in text combined with their extensive life experiences usually compensated for a difficulty with a particular term or concept. What is important to note is that redundancy as a feature of text exists only when texts are whole and when readers are allowed to interact fully with that whole text. These readers seemed to suggest that when reading whole language, the meaning somehow transcends the words, going beyond their specific definitions and grammatical functions to a conceptual understanding that exists not on the page but in the mind of the reader as an integrated whole. When asked whether miscues made sense and whether they affected meaning, both readers displayed a tendency to respond to chunks of meaning, not to the specific meanings of the words. They considered entire portions of the texts when discussing issues of meaning, seeming to suggest that in WHOLE LANGUAGE readers are constructing WHOLE MEANINGS.

Miscue analysis as a research tool has long been sensitive to this aspect of comprehension; it is
recognized in the recommendation that readings for the purpose of conducting miscue analysis be accompanied by the reader's retelling of the text. Furthermore, the recently revised Reading Miscue Inventory restricts the analysis of "meaning change" to only those miscues which are syntactically and semantically acceptable. Estimating meaning change, especially for low-quality miscues, is extremely difficult.

The Development of the Readers

Perceptions about the reading process and individual strengths and weaknesses. The Burke Interview Modified for Older Readers was used to gain insight into the readers' models of the reading process and their evaluations of their reading abilities. At the beginning of the study, both readers held models of the reading process which placed accurate text reproduction at a premium. They possessed misconceptions about good readers, and believed that their own strategies were totally unlike those used by good readers. It was apparent that Gloria and Marianne needed to revalue the strategies they used in reading in order to recognize that much of what they did was similar to what proficient readers do.

Throughout the retrospective miscue analysis sessions, those initial beliefs about the reading
process and about their strengths as readers underwent a transformation. Data from RMA transcripts document a shift from "text reproduction" models of the reading process to "meaning construction" models for both readers. Early in the sessions, Gloria and Marianne stated that all their miscues needed to be corrected, and that the miscues were the result of careless reading. Over time, they began to assert justifiably that many of their miscues required no correction, that meaning was constructed despite the miscues, and that the interaction between the text and the reader had prompted most of their miscues. They became sensitive to miscues which so distorted text that a need for correction was signaled, and they also were sensitive to nuances in text which should be preserved, even when miscues did not disrupt meaning in a major way. Finally, both showed evidence of growing control over the reading process as they found the confidence to assert that in many instances the miscues they made were "better" than the words used by the authors.

Closing Interviews were conducted to compare attitudes Gloria and Marianne held at the beginning of the study with the attitudes they possessed at the end. Those interviews confirmed that indeed each reader had grown more confident of her reading ability and had
decided that "making sense" was the essential component in reading for meaning.

Development of Reading Strategies. In initial readings of "The Wreck of the Zephyr" both Gloria and Marianne provided evidence that approximately half of their miscues reflected ineffective and inefficient use of reading strategies. Over the course of this study, each reader improved the quality of her miscues and lowered the number of miscues at every level of text difficulty. As miscues which were syntactically and semantically acceptable increased, there was an accompanying decrease in miscues which were highly similar to the text in graphophonetic characteristics.

A positive relationship had been established between perception and process—one where the strengthening of the reader's perceptions about her abilities as a reader led to more risk-taking and more reading, which in turn reinforced her self-perceptions. This cycle of enhancement can be visualized in the following model:
The model recognizes that, ultimately, the most natural way to improve reading is by reading; but adult readers are often so lacking in confidence that they are unable to proceed. When low levels of confidence are influenced by a model of reading that stresses accuracy, the reader is even more greatly immobilized. This research has suggested that retrospective miscue analysis is an effective strategy for assisting adult readers in improving their reading.

Implications and Recommendations

The case studies in this research have provided the researcher with an opportunity to investigate and describe in-depth the ways in which retrospective miscue analysis was developed as an instructional strategy, as well as the possible results of its use with adult
readers. Case studies are frequently recommended for research that is primarily exploratory in nature, and not experimental, as was the case in this study.

The case study approach also maximizes natural and flexible contexts for learning, and both Gloria and Marianne commented about the value of RMA as distinct from traditional instructional techniques. The requirements for conducting research in a traditional experimental design often force researchers to strictly and somewhat artificially control variables such as text selection, reader/teacher interaction, and RMA session routines. Such artificiality would obviously have been inappropriate in this research; but the result is that the study cannot be statistically generalized to a larger population of readers. What it provides, however, is sufficient detail so that the procedure could be replicated, and perhaps a triangulated data base may yet be amassed.

Many questions about retrospective miscue analysis remain for further exploration, for example:

1. What are the long-term effects of retrospective miscue analysis used as an instructional strategy with adults? How will readers fare if and when they once again encounter an instructional setting which focuses on accurate text reproduction?
2. Is the technique useful with younger readers? Used in what ways?

3. What other variations on retrospective miscue analysis session routines, other than those described in this study, are possible?

4. Are there other instructional strategies which, when used in combination with retrospective miscue analysis, might strengthen its effect?

It is recommended that in-depth, longitudinal studies be made of these and other questions which might be generated from this research.

In the closing chapter of her study of the effects of process-oriented instruction on adult readers, Curtis (1984) made the following recommendation:

Educators cannot hope to broaden the content or context of adult literacy skills by employing methods with which they have failed previously. The search for alternative methods that address their adultness and builds on the competencies they already possess is critical (p. 130).

Retrospective miscue analysis is an alternative method compatible with these recommendations, but it is certainly not the only one. There remains a need to search for a combination of instructional strategies which give readers in trouble the confidence to take control of the reading process, revalue their strategy
utilization, and become readers who read for meaning. For many educators, this kind of instruction will necessitate changes in their classrooms, their materials, and their approaches. And, ultimately, it may necessitate a change in their models of the reading process.

The Evolution of Teacher-Researcher

When Marianne pointed out the many ways in which the instruction she received was different from "what a schoolteacher" would do, I began to analyze my own role in the process of using retrospective miscue analysis as an instructional technique. I'm not certain how often research has a very powerful effect on the researcher, but the two women with whom I worked have dramatically altered some of my previously held notions about the reading process, and have helped me to clarify what I believe about teaching, and, more importantly, learning. This section is devoted to sharing what I learned from two unsuspecting teachers.

A number of years ago, my classroom at Toltec Elementary School in Eloy, Arizona, boasted a large yellow poster with bright, orange print advising my students: "A Tip For Toltec Tiger Readers: When you're reading and you come to something you don't know, read on and think about what would make sense. It usually
works!" That advice was rooted in my belief that "making sense" was the ultimate in reading strategies—if readers would focus on making sense of text they would remediate for themselves much of the difficulty they often experienced. And a classroom rich with literature, drama, newspapers and magazines would provide a natural incentive to read. I believed that language was easiest to learn when it was presented in "wholes" complete with beginnings, middles, and ends, and existing for some real purpose. These beliefs have not been mitigated by my work with Gloria and Marianne. Rather, they have been greatly strengthened.

My understanding of psycholinguistic theory also led me to believe that for the reading process to be most "accessible" to students, they must be allowed the time and flexibility within a text to fully sample, predict, confirm and correct. That meant I had a classroom where children were not allowed to "give one another the word" when plays were read and all had copies of the text (although they were allowed to give semantic "clues"). But when students were faced with something they didn't (apparently) know, I advised "Can you think of a word that would make sense?" and encouraged the substitution of words that made sense within the context. And when no words that made sense occurred to the reader, I said "Skip it. Go on." I
knew from research that "giving readers the words" is an ineffective strategy--teachers find themselves giving the same word repeatedly throughout a text. The "remedial readers" in my classroom were used to teachers who corrected every miscue and provided words when readers were unable to do so. Years of "remediation" had made many of them completely dependent upon their teachers, unwilling to take risks, and unsure of the purpose for reading.

I wanted to shatter these misconceptions. I wanted to remind them continually that reading for meaning was the only real reason for reading. I wanted them to assume control of making sense of text. But there was at least one flaw in my approach. I believed that I could control their judgments of what made sense; that my intrusion into their thought processes as they read was based on an accurate perception of what they were thinking. Let me share an example:

It is 11:15 a.m. and 3rd grader Joe Russell is spending 15 minutes at the "reading conference" table with me. He is reading aloud from "Rumplestiltskin," and makes a miscue which apparently makes no sense. I allow him to finish the sentence before saying, "Hum, you said, . . . . Does that make sense?" Joe looks up at me, thinks for a moment, and rationalizes his miscue. He continues reading.

Scenes such as this were commonplace in my classroom. I felt justified in calling attention to miscues which didn't make sense, but what I failed to understand is
that in so doing, I was continuing to impose "my" notion of what makes sense on the readers. My question "Does that make sense?" was merely a disguise for "That doesn't make sense to me. You need to make a correction." My intention to help children focus on understanding text was not at fault, but I needed to go one step further and help them internalize the question "Does this make sense TO ME."

This realization became most clear to me in two consecutive RMA sessions conducted with Marianne. RMA Session No. 2 focused on Marianne's miscues made in her previous week's reading of "My Brother is a Genius." At the conclusion of that session, I included in my NOTES the remark "I'm creating a Frankenstein," referring to her explanations for why many of her "Genius" miscues made sense, even when they appeared to me to make little sense.

At the end of her second session, she read an article, "The Reno Rodeo," into the tape-recorder. Many of her miscues appeared likely to disrupt meaning (I calculated 61% probable "loss" of meaning), and I looked forward to the next session when we would discuss her miscues. Up to that point, she had been adamant in her insistence that most of her miscues made sense. I thought she would be forced to admit that the miscues in the "Rodeo" text did not make sense, and that she would
begin to recognize the value of monitoring her comprehension. But Marianne did not react as I anticipated. Consider her justifications for the following miscues, each from the "Rodeo" text:

Question: Does the miscue make sense?

Happily, this outdoor rodeo is still more down-home that uptown, and there isn't a bad seat in the house.

Figure 7.9
Miscue Example No. 8

Marianne: Yeah. They could be talking about the way they run the show--what they're going to do and how they're going to do it--how they set it up.

But look, the indoors is for raising hamsters, not cattle.

Figure 7.10
Miscue Example No. 9

Marianne: Yeah. Athletes are in indoor pavillions, doing stuff like strengthening their hamstrings.

Her unpredictable (though perhaps defensible) responses led me to realize that only the reader is in the position to judge whether miscues disrupt meaning.
Furthermore, a teacher attempting to control those determinations may only reinforce dependence on others to monitor understanding. Marianne's persistence in believing she was right helped me see where I had been wrong.

Although reading is a vehicle for social interaction, it is essentially a solitary activity, and its successful pursuit requires that readers be helped to become more independent than dependent in their transactions with texts. This may sound trivial, but much of what we do encourages readers to rely on others to make sense for them. If they do this long enough, they forget that making sense was ever the purpose for reading. We cannot, in Gloria's words, sit alongside the reader, point out the problems, and make the repairs. Instead, readers must learn to find the difficulties for themselves and resolve them in ways that make sense to them. Even the self-described nonreaders in this study possessed effective strategies, and when they were allowed to determine for themselves the worth and usefulness of those strategies, they incorporated more of them into their reading.

Ownership is the key to revaluing. But how can we foster the assumption of ownership of the process? Retrospective miscue analysis is one way we can take the mystique out of reading and let readers discover what
reading researchers have discovered: that all readers make miscues, that the strategies they use are legitimate, that comprehending and comprehension are tentative, ever-shifting across a text, and shifting within the mind of a reader when the text is no longer present. We must engender a respect for the complexity of the process and their abilities relative to that process. The revaluing in this research has been two-fold. Gloria and Marianne were revaluing reading: I was revaluing readers.
APPENDIX A

BACKGROUND INFORMATION

Name: 
Address: 
Phone Number: 
Age: 
Family Members: 

EDUCATION

Any previous experience in college?

Describe current experience in college, if any?
  Degree sought?
    Past courses?
    Current courses?  Teaching Methods?
    Study plan at college?

Previous experiences in reading programs?

OCCUPATION

Previous job experience?

Current job?  Responsibilities?

INTERESTS

Recreational interests?

Other interests or hobbies?
APPENDIX B

BURKE INTERVIEW MODIFIED FOR OLDER READERS (BIMOR)

(Original by C. Burke, adaptations by D. Watson)

1. When you are reading and you come to something that gives you trouble, what do you do? Do you ever do anything else?

2. Who is a good reader that you know?

3. What makes ____________ a good reader?

4. Do you think that ____________ ever comes to something that gives him/her trouble when he/she is reading?

5. When ____________ does come to something that gives him/her trouble, what do you think he/she does about it?

6. If you knew that someone was having difficulty reading, how would you help that person?

7. What would a teacher do to help that person?

8. How did you learn to read?

9. Is there anything you would like to change about your reading?

10. Describe yourself as a reader. What kind of reader are you?

11. What do you read routinely, like every day or every week?

12. What do you like most of all to read?

13. Can you remember any special book or the most memorable thing you have ever read?

14. What is the most difficult thing you have to read?
APPENDIX C

CLOSING INTERVIEW

1. How do you feel about yourself as a reader?

2. Do you have any different attitudes toward reading than you had at the beginning?

3. Have there been any changes in your reading as a result of our sessions? Describe.

4. How do you feel about your ability to continue improving your reading?

5. Generally speaking, what do you think about the sessions we spent together?

Note: Questions from the Burke Interview Modified for Older Readers will be asked again during the Closing Interview, where appropriate.
APPENDIX D

READING MISCUE INVENTORY
PROCEDURE I QUESTIONS

Question 1: SYNTACTIC ACCEPTABILITY. Does the miscue occur in a structure that is syntactically acceptable in the reader's dialect.

Question 2: SEMANTIC ACCEPTABILITY. Does the miscue occur in a structure that is semantically acceptable in the reader's dialect.

Question 3: MEANING CHANGE. Does the miscue result in a change of meaning.

Question 4: CORRECTION. Is the miscue corrected?

Question 5: GRAPHIC SIMILARITY. How much does the miscue look like the text?

Question 6: SOUND SIMILARITY. How much does the miscue sound like the expected response?
## MISCUE ANALYSIS PROCEDURE 1 CODING FORM

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### SYNTACTIC ACCEPTABILITY

- No Loss
- Partial Loss
- Loss

### SEMANTIC ACCEPTABILITY

- Strength
- Partial Strength
- Overcorrection

### MEANING CHANGE

### MEANING CORRECTION

### GRAMMATICAL RELATIONSHIPS

### GRAPHIC SIMILARITY

### SOUND SIMILARITY

---

(a) TOTAL MISCUES ___
(b) TOTAL WORDS ___

\( a + b \times 100 = \text{MPHW} \) ___

COLUMN TOTAL

PATTERN TOTAL

PERCENTAGE
APPENDIX F

RMA SESSION ORGANIZER

Reader ________________________
Date ________________________
Text ________________________

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Notes: ____________________________
APPENDIX G

RMA RESPONSE FORM

SESSION ________________________ READER ________________________

Session focus, if any__________________________

READER FOCUSES ON:

RMA QUESTIONS: *Reproducing Text **Constructing Meaning

1. Does miscue make sense?

(each miscue is listed) (reader comments are quoted)

__________________________

__________________________

2. Did/should correct miscue?
(as above)

3. Why did reader miscue?
(as above)

4. Miscue affect understanding?
(as above)

NOTES________________________________________

________________________________________

264
APPENDIX H

RETROSPECTIVE MISCUE ANALYSIS TRANSCRIPT

Gloria's RMA Session No. 4

Setting: Gloria and the researcher are seated at her kitchen table. A tape-recording of her previous week's reading of "The Boy and the North Wind" is being listened to at points where miscues have been selected by the researcher for discussion. The RMA session itself is also being tape-recorded for transcription at a later time.

Gloria is able to hear herself reading on the tape-recording, and the typescript with her miscues marked is also in front of her on the table.

"Go to the storehouse and bring me some meal for our porridge."

Researcher: Does that one make sense?

Gloria: It does make sense in a way; it could be like me being a mother and I'd say "Go and get some meal for your porridge."

Researcher: Is that one you corrected?

Gloria: No, I didn't.

Researcher: Do you think you needed to?

Gloria: Not really. I think you could still get the gist of the story. But it was a mistake.
Researcher: Do you think it affected the meaning of the story?

Gloria: No.

Researcher: What we're trying to focus on again is the efficiency with which you read--the fact that you don't need to correct things that make perfect sense the way they are. That's what good readers do. And you are beginning to make more and more corrections on things that don't make sense.

---

He started walking toward the North, where the Wind had his home.

Researcher: Does it make sense to say "when the Wind had his home"?

Gloria: No. I think that's why I went slow there. Did I correct that?

Researcher: Yes.

Gloria: Oh I did? Oh good. That was fine.

Researcher: Did you need to correct it?

Gloria: Yes. It didn't make sense at all. So that was good.

Researcher: And you were able to back up and correct it because it doesn't make any sense. Why do you think you made this one?

Gloria: They look so much alike, I think. I get "when" and "where" and "which" mixed up.
Researcher: I've tended to notice over time that you have more "when" and "then" as a substitution and then "when" and "where." Occasionally you substitute "when" and "there." And Gloria that's because those words very often start phrases, start beginnings of sentences, and there are so many of them. And at the beginning it is hard to predict which one of them will turn out right. And of course you're not reading letter by letter...

Gloria: Not on that one I'm not.

Researcher: You aren't ever. What we read is what is predictable for us. And you've seen so many of those occasions where what you did made perfect sense. We just talked about one--"your" for "our." It made sense so it was fine with you, even though they aren't exactly the same.

Gloria: I see what you mean.

Researcher: But you did correct that one and that was a place where you needed to and were able to.

He walked and walked, and it was almost night when he reached the palace of the North Wind.

Researcher: Do you see what that is now?

Gloria: Palace? Oh, I just thought it was good to have "place" there. Palace would really put more glamour into the story. If I was telling it to kids I should have gotten that correct.

Researcher: Did it affect your understanding?

Gloria: In terms of meaning, I understood it. Wonder why I did that? Oh, it is because they look the same, you see.
Researcher: They do look a lot alike.

Gloria: The whole spelling...everything's there.

Researcher: And "place" and "palace" are both nouns--they work the same, you see them in the same spots in sentences. A "palace" is a "place." And the North Wind lived in the "place" where the "palace" is. Later on there is one other instance of "palace" and there you say "place" with no stumbling at all. You just went right through it. By the time you got close to the end of the story--and I hope you've figured out by now one of the things I've been trying to share with you is that as you get into stories things appear to you that don't appear to you at the beginnings. Near the end of the story you're into the glamour of the story, and all of a sudden "place" isn't working for you anymore. And you repeat "place" three times before you let it go and go on. So by this point you're bothered about it. The first two instances you were satisfied with "place"--the third you weren't satisfied [clear from three repetitions], and the author never gave you another chance at it. So you said you thought you should have corrected it if you were reading to children?

Gloria: Yes. But maybe it's because I don't use the word "palace" very much. That's not in my memory bank.

Researcher: And yet looking at it cold today and it occurred to you, and I know you haven't studied the word "palace" in the last month, so it must have been in the same place in your memory bank when you first read the story. It's just that when you read you're into the words, you're making predictions, and you don't always see the words "cold." Your mind is working on lots of things at once.
"I have no meal," said the North Wind,
"but I'll give you a tablecloth that
**any**
will be better than many bushels
of grain."

Researcher: Make sense?

Gloria: I think it makes sense. "Many" would be a lot more, and "any" could be any amount, I suppose. Don't really know whether I should have corrected that one.

Researcher: Do you think it is fine the way it is?

Gloria: Well, it is fine, but it could change the story a little bit. Well, it is actually about the same.

Researcher: Do you have any sense of why you did that one?

Gloria: I don't know. I think I was just getting into the story.

Researcher: Are you picking up on any visual clues there? Can you tell?

Gloria: I don't know if I am or not. They do look alike, one is just missing the "m." So I just obviously missed the first of the word, just looked at the "y" I expect...

Researcher: Looked at it enough to make sure that "any" matched up enough and it was making sense to you. And that's what we do when we're reading. We never look at all the letters—we only see enough to make sure we're right, and then we keep going.
"When you want to eat, say to the cloth, 'Cloth, cover the table and serve a fine meal.'"

Gloria: Oh. I put "me" in and then I corrected it. "Serve me a fine meal" would have been alright.

Researcher: Would have made sense?

Gloria: Yeah. But I corrected it because I was looking at the words there.

Researcher: I think one other time you and I talked about how you can over correct. You can correct things that make perfect sense and that is not a very efficient thing to do. Good readers tend to leave alone things that make sense. They correct what doesn't make sense and they leave alone what does. Do you have any thoughts about this particular phrase and why it might be more important to make a correction even though it makes sense?

Gloria: [repeats sentence] Maybe because it was a command, and that was the way it should be said. That's maybe why I corrected it.

Researcher: That's what I was thinking. Because it is a place where it is important to get the words exactly right or the cloth won't do the correct thing.


Researcher: And you can also anticipate any time a command is given like that in a story that it is going to happen later on too. I mean the kid is going to get home and try it out. So it is more important.
There was an inn nearby and the boy stepped inside.

Gloria: That's because I was... I do get those things muddled up. I think I was just looking at those letters... .

Researcher: And there again, it happens at the beginning of a sentence. "Where" could have started out that sentence just as easily as "There." What happens in language, Gloria, is that there are groups of words that can happen in certain places and can't happen in others. If you looked at this sentence, you might try "The" or "Where." You almost never would try something like "Tree" even though it looks a bit like "There" because "Tree" doesn't usually begin sentences. So there are a whole host of words you would reject— you'd never try those. But what you're doing is what we all do, and that is to try one that generally fits in that slot. And the important thing is to develop the knack, and you're developing it, of fixing it when you get one word in and realize it doesn't work.

He seated himself and said, "Cloth, cover the table and serve a fine meal."

Gloria: I said that ["serve a fine meal"] right this time. Except for... .he "seated." I didn't say that did I?

Researcher: You said, "He sat himself." Does that make sense?

Gloria: "He sat himself down" would have been correct. "He sat himself... ." It might make sense to me but I don't know if it is correct grammar.
Researcher: I don’t know either. I think speakers of varying dialects of English would be able to say different things there. I think some speakers would even say "He set himself down." What a grammar book would say is really not the issue. What we tend to do is to manipulate text to suit our own dialect.

Gloria: I think maybe you’re right. I think I said it how I would say it.

Researcher: Does it have any meaning variation at all?

Gloria: No.

The other guests in the inn were

wonderstruck, and the innkeeper’s wife demanded
determined that the tablecloth
should belong to her.

Gloria: [laughs as she listens to herself on tape] Well, "determined"--I think it is really stronger as "demanded."

Researcher: You like your choice better?

Gloria: Yes. She wanted it, she demanded it, instead of just determining it should be hers.

Researcher: And you don’t falter at all on that. I don’t know if you paid attention as you heard it on the tape, but you weren’t struggling with how to pronounce this at all.

Gloria: No, I just carried on with that sentence.
Researcher: You saw enough of the word that you could confirm "demanded" is possible, it makes sense, and you went on. On these kinds of words, you used to sometimes struggle and say something that would be nonsense, like "DETermined." But now you're substituting words that are similar in appearance but also make sense.

Gloria: If I was reading that to somebody they wouldn't stop me.

Researcher: Oh, if they didn't see the book they would never stop you.

Gloria: So it makes sense as long as it makes sense to me?

Researcher: Uh huh.

In the middle of the night she crept to the room where the boy was asleep and took the cloth from him.

Gloria: [laughs as she hears the tape] "Asleep" . . . "Sleeping" Well that makes sense. I'm putting my own things in.

Researcher: Any reason to correct that one?

Gloria: No.

Researcher: Precisely the kind of miscue good readers make and don't bother to correct. They're so adept at predicting and sampling the very fewest cues to confirm whether they're right. If we read letter by letter and then crunched it into words, we could never read as quickly as we do.

Gloria: I guess not.
Researcher: So reading isn't letter by letter, put it together, make a word, say what the word is, and then go on.

Gloria: I think that's what I used to try to do. But I must be getting better at that.

Researcher: Because now you're paying attention to sense, and that's the only thing that really matters in reading.
APPENDIX I

TYPESCRIPT FOR "THE BOY AND THE NORTH WIND"

The Boy and the North Wind

Long ago, in Norway, a boy lived with his mother. One day she gave him a bowl and said, "Go to the storehouse and bring me some meal for our porridge."

The boy crossed the yard and filled the bowl in the storehouse. But the moment he came out of the doorway, the North Wind came up with a roar and blew all the meal from the bowl.

So the boy went back into the storehouse and got some more meal, but as soon as he stepped out of the door, the Wind blew the meal away again. Once more he filled the bowl, and once more the Wind emptied it.

Then the boy was angry. He started walking toward the North, where the Wind had his home. He walked and walked, and it was almost night when he reached the palace of the North Wind.

"Good day," said the boy to the Wind. "Thank you for calling on me yesterday."

"Good day," the Wind replied gruffly.
"There's no need of thanks. What has brought you here?"
"I came to ask you to give back the meal you blew from my bowl," said the boy. "We are very poor, and if you keep blowing our meal away, we are likely to starve."

"I have no meal," said the North Wind, "but I'll give you a tablecloth that will be better than many bushels of grain. When you want to eat, say to the cloth, 'Cloth, cover the table and serve me a fine meal.'"

The boy thanked the North Wind and started home with the tablecloth, but darkness came upon him before he had gone far. There was an inn nearby and the boy stepped inside. He seated himself and said, "Cloth, cover the table and serve a fine meal." Immediately a delicious dinner was before him.

The other guests in the inn were wonderstruck, and the innkeeper's wife immediately determined that the tablecloth should belong to her. In the middle of the sleeping night she crept to the room where the boy was asleep and took the cloth from him. In its place she left one of her own that looked very much like it.
LIST OF REFERENCES


Worsnop, C. M. (no date). A procedure for remedial reading instruction based upon miscue analysis research and techniques. Unpublished manuscript, Canadian Education Department.