COGNITIVE STRATEGIES OF UNDERPERFORMING AFRICAN AMERICAN BOYS IN RESPONSE TO CHILDREN’S LITERATURE

By

EVIE ADAMS WELCH

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2008
In memory of my Mother
Mildred Rebecca Shaw-Adams
June 5, 1919- May 4, 2004
ACKNOWLEDGMENTS

Many professors’ ideas influenced the contents of “Cognitive Strategies for Underperforming African American Boys in Response to Children’s Literature.” First, to members of my dissertation committee, I wish to thank the Chair, Dr. Linda Lamme for teaching me the technical background about how children’s books were constructed. I learned how children’s books were carefully researched, while quality children’s books were skillfully crafted. Second, I wish to thank Dr. Ruth Lowery, my Co-chair for reading every page of the first proposal presented at the qualifying examination. Your comments led me to explore answers in the field of neuroscience where I found one answer to the guiding question for the study. Patrick Shannon was translated to me and provided unique experiences of looking at many social issues through the eyes of an immigrant. Third, I wish to thank Dr. Danling Fu for the suggestions given at the qualifying examination to organize the work into three major strands to explore one literacy problem, when I originally wanted to use children’s literature to present the findings from the 2003 Pilot Study about information processing and leave the rigorous researching of the literature about literacy to someone else. However, because of the suggestions, the manuscript became much richer. Finally, thank you Dr. Kenneth Kidd for teaching me that the Doolittle Series by Hugh Lofton were racist. Therefore, the section “White Racism: Its Deconstruction” was often painful to write, especially after analyzing racism as a social construct from a different level of consciousness. In addition, you taught me "boyology" and forced me to look at sex and gender, through new lenses. Therefore, the dissertation included a portion of all of your influences.

However, the professors outside of the dissertation committee were often equally as powerful. In that vein, I wish to thank the following persons: Drs. Elizabeth Bondy who taught me Critical Theory, the classroom handout "Intelligence: Known and Unknowns" was most
valuable and was used as part of the methodology and to Dr. Dorene Ross for introducing me to Ruby Payne’s “A Framework for Understanding Poverty.” Payne’s cognitive processes' views and the non-verbal clues were also utilized for the study. And most of all, to Dr. Rose Pringle who gave me the best advice: “Stop looking for a book on the shelf. You must write it.” In addition, you gave me the background to understand neuroscience, while the resident doctors taught me the “science of learning” in the University of Florida’s Shands at Jacksonville with Cynthia Ferguson's help of supplying additional references to understand neuroscience while studying in the Borland Library Health Science Center.

To Cranston Burney, the “self-taught” Ph. D. of political and African American socio-economic culture and political affairs at the Jacksonville Public Library and to Arthur Findley a political ally; both of you helped me to understand the contemporary, cultural history of Jacksonville.

I also wish to thank Sarah Traylor in the Office of Graduate Minority Programs that provided moral support and financial assistance during my attendance at the University of Florida. But most of all, I wish to thank Dr. Michael Bowie and Shirley St. Juste of the CROP Program. Dr. Bowie caught the vision of the research and purchased the Learning and Study Strategies Inventory-HS (LASSI) computer version from the 2003 CROP funds, 422950105Q011, for the Pilot Study, through the College of Education, Recruitment, and Multicultural Affairs. I thank your Office for supporting this research morally and financially.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>4</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>10</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>11</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>12</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>1 BACKGROUND FOR THE STUDY</td>
<td>14</td>
</tr>
<tr>
<td>Introduction</td>
<td>14</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>16</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>21</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>21</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>22</td>
</tr>
<tr>
<td>2 REVIEW OF LITERATURE</td>
<td>27</td>
</tr>
<tr>
<td>Introduction</td>
<td>27</td>
</tr>
<tr>
<td>Social Effects on Learning</td>
<td>28</td>
</tr>
<tr>
<td>A Socio-historical Perspective: African Americans’ Quest for Literacy</td>
<td>30</td>
</tr>
<tr>
<td>General Attitude toward African American Males</td>
<td>36</td>
</tr>
<tr>
<td>Refusal to Learn: “I Won’t Learn from You”</td>
<td>37</td>
</tr>
<tr>
<td>White Racism: The Struggle for Its Deconstruction</td>
<td>41</td>
</tr>
<tr>
<td>An American dilemma</td>
<td>42</td>
</tr>
<tr>
<td>It’s all in the mind: The pathological problem</td>
<td>44</td>
</tr>
<tr>
<td>Before Brown v. Board of Education: The trailblazers</td>
<td>45</td>
</tr>
<tr>
<td>A few brave men: The psychologists</td>
<td>48</td>
</tr>
<tr>
<td>“Physicians Heal Thyself”: The medical community</td>
<td>51</td>
</tr>
<tr>
<td>DNA and zebrafish stories: The scientists</td>
<td>58</td>
</tr>
<tr>
<td>The gate keepers: Some of the social and political scientists</td>
<td>59</td>
</tr>
<tr>
<td>The change agents: The educators</td>
<td>60</td>
</tr>
<tr>
<td>Gender</td>
<td>64</td>
</tr>
<tr>
<td>Poverty and Class</td>
<td>66</td>
</tr>
<tr>
<td>Class, Culture, and African Americans</td>
<td>68</td>
</tr>
<tr>
<td>Monocultural Curriculum</td>
<td>72</td>
</tr>
<tr>
<td>Low Literacy Environment</td>
<td>73</td>
</tr>
<tr>
<td>Summary: Social Effects on Learning</td>
<td>75</td>
</tr>
<tr>
<td>Cognitive Processes for Learning</td>
<td>80</td>
</tr>
<tr>
<td>Two Psychiatrists’ Suggestions and Views about Learning</td>
<td>81</td>
</tr>
<tr>
<td>Multicultural Literature Usage</td>
<td>83</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Cognitive-developmental dimension of reader response</td>
<td>84</td>
</tr>
<tr>
<td>Information processing using short- and long-term memories</td>
<td>86</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>89</td>
</tr>
<tr>
<td>African American Boys, “What’s Your Major Academic Problem?”</td>
<td>91</td>
</tr>
<tr>
<td>Summary: Cognitive Processes for Learning</td>
<td>93</td>
</tr>
<tr>
<td>Reading for Cognitive Development</td>
<td>95</td>
</tr>
<tr>
<td>Reading Selections for African American Boys</td>
<td>95</td>
</tr>
<tr>
<td>Reading Skills for Cognitive Development</td>
<td>96</td>
</tr>
<tr>
<td>K-5, word recognition skills and comprehension</td>
<td>97</td>
</tr>
<tr>
<td>K-6 reading comprehension skill</td>
<td>98</td>
</tr>
<tr>
<td>Grades 4-10, reading skills for efficient study</td>
<td>98</td>
</tr>
<tr>
<td>Information-processing Skills for Disadvantaged Readers and Learners</td>
<td>99</td>
</tr>
<tr>
<td>The dominant-specific knowledge approach</td>
<td>101</td>
</tr>
<tr>
<td>The mediated learning experience (MLE) approaches</td>
<td>102</td>
</tr>
<tr>
<td>Information-Processing Competencies and Reader Response</td>
<td>103</td>
</tr>
<tr>
<td>Critical literacy</td>
<td>105</td>
</tr>
<tr>
<td>Creative thinking, divergent thinking, and culture</td>
<td>106</td>
</tr>
<tr>
<td>Information processing and jazz</td>
<td>108</td>
</tr>
<tr>
<td>The American Psychological Association’s (APA) Task Force Report on</td>
<td>110</td>
</tr>
<tr>
<td>Intelligence</td>
<td></td>
</tr>
<tr>
<td>Summary: Reading for Cognitive Development</td>
<td>113</td>
</tr>
<tr>
<td>Reflections: Summary of the Three Major Strands</td>
<td>115</td>
</tr>
<tr>
<td>3 THE STUDY</td>
<td>123</td>
</tr>
<tr>
<td>Introduction</td>
<td>123</td>
</tr>
<tr>
<td>Ethnographic Case Study</td>
<td>125</td>
</tr>
<tr>
<td>Researcher’s Perspective</td>
<td>131</td>
</tr>
<tr>
<td>Researcher’s Design</td>
<td>135</td>
</tr>
<tr>
<td>The Venn Diagram within the Design</td>
<td>139</td>
</tr>
<tr>
<td>The Left Rectangle: The Reader</td>
<td>141</td>
</tr>
<tr>
<td>The Right Rectangle: The Readers’ Responses</td>
<td>142</td>
</tr>
<tr>
<td>The Small Center Rectangle beneath the Venn Diagram</td>
<td>142</td>
</tr>
<tr>
<td>The Horizontal Line: Information processing</td>
<td>145</td>
</tr>
<tr>
<td>Components of the Design Model: Figure 3-2</td>
<td>145</td>
</tr>
<tr>
<td>Methods of the Study</td>
<td>149</td>
</tr>
<tr>
<td>Selecting the General Population</td>
<td>152</td>
</tr>
<tr>
<td>Selecting a Specific Population</td>
<td>154</td>
</tr>
<tr>
<td>Selecting the Participants and Setting</td>
<td>159</td>
</tr>
<tr>
<td>Choosing the Reading Selections</td>
<td>162</td>
</tr>
<tr>
<td>Procedures for the Study</td>
<td>167</td>
</tr>
<tr>
<td>Data Collection: Oral Reader Responses</td>
<td>169</td>
</tr>
<tr>
<td>Data Collection: Written Reader Responses</td>
<td>172</td>
</tr>
<tr>
<td>Data Collection: Eye Movement Drawings</td>
<td>173</td>
</tr>
<tr>
<td>Data Analysis: Written Reader Responses</td>
<td>178</td>
</tr>
<tr>
<td>Data Analysis: Oral Reader Response</td>
<td>185</td>
</tr>
</tbody>
</table>
Use of active rehearsal strategies ................................................................. 189
Use of organizational strategies ................................................................. 191
Use of elaboration strategies ................................................................. 198
Data Analysis: Eye Movement Assumptions ........................................... 205
Summary: The Study ..................................................................................... 211

4 THE FINDINGS ................................................................................................. 218

Introduction: The Challenge ......................................................................... 218
Findings Grouped by Reading Levels .......................................................... 221
  FCAT Reading Level 1 .................................................................................. 222
  FCAT Reading Level 2 .................................................................................. 224
  FCAT Reading Level 3 .................................................................................. 225
  FCAT Reading Level 4 .................................................................................. 227
Findings Grouped by Cognitive Activities ................................................. 229
  Findings of Active Rehearsal Activities .................................................... 232
  Findings of Organizational Activities ....................................................... 236
  Findings of Elaboration Activities ............................................................. 238
  Findings from Written Responses ............................................................ 240
  Findings from the Eye Movement .............................................................. 243
Summary ......................................................................................................... 244

5 CONCLUSIONS AND EDUCATIONAL IMPLICATIONS .............................. 250

Introduction .................................................................................................. 250
Conclusions .................................................................................................... 250
  The Social Effects on Learning ................................................................. 250
  Cognitive Processes for Learning ............................................................... 251
  Reading for Cognitive Development ....................................................... 253
Educational Implications ........................................................................... 254
  Policy Makers ............................................................................................ 254
  Teachers and Teacher Educators ............................................................... 254
  Parents ........................................................................................................ 255
  Conclusion of the Study ........................................................................... 256

APPENDIX

A A PILOT STUDY TO IDENTIFY SOME AFRICAN AMERICANS BOYS’
  ACADEMIC STRENGTHS AND WEAKNESSES: A DESCRIPTION .......... 259

B AMERICAN PSYCHOLOGICAL ASSOCIATION TASK FORCE’S REPORT ON
INTELLIGENCE “KNOWN FACTS” AND UNKNOWN “ISSUES” FROM THE
SEVEN CONCLUSION STATEMENTS ....................................................... 262

C INTERVIEW GUIDE FOR THREE COGNITIVE LENSES IN FIGURE 3-1.... 265
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1</td>
<td>Black identity development.</td>
<td>118</td>
</tr>
<tr>
<td>2-2</td>
<td>White identity development</td>
<td>119</td>
</tr>
<tr>
<td>2-3</td>
<td>Some characteristics of white culture</td>
<td>120</td>
</tr>
<tr>
<td>2-4</td>
<td>Cognitive strategies commonly used for information processing</td>
<td>121</td>
</tr>
<tr>
<td>2-5</td>
<td>A classification of black-American self-esteem</td>
<td>122</td>
</tr>
<tr>
<td>4-1</td>
<td>Tally of <em>Surface and Deep Structures</em> in Written Reader Responses for Grade 3</td>
<td>249</td>
</tr>
<tr>
<td>4-2</td>
<td>Tally of <em>Surface and Deep Structures</em> in Written Reader Responses for Grade 4</td>
<td>249</td>
</tr>
<tr>
<td>4-3</td>
<td>Tally of <em>Surface and Deep Structures</em> in Written Reader Responses for Grade 5</td>
<td>249</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>3-1</td>
<td>A Module of the Research Design: Discovery of Strategies for Processing Texts</td>
<td>216</td>
</tr>
<tr>
<td>3-2</td>
<td>Levels of Cognitive Thinking for Academic Learning</td>
<td>217</td>
</tr>
</tbody>
</table>
The study was designed to identify and describe how some African American boys in grades 3, 4, and 5 scoring a level 1 or 2 on the Florida Comprehensive Assessment (FCAT) processed information in response to children’s literature. Seventeen boys were identified for the study by their language arts teachers, a guidance counselor, and the Director of Title 1 Parent and Counseling Resource Center. From January through May of 2005, once a week for four hours in an after-school reading program, the boys read 19 selections, seven of which were children’s literature. Their discussions in large and small group settings, and interviews, and reader responses were audio taped for transcription while the written responses were catalogued and analyzed for surface and deep structures. The study’s guiding question was “What kind of cognitive strategies did some underperforming African American boys use for reader response to children’s literature that were equally applicable for studying, learning, and recalling data for academic success?”

The interpretations and assumptions of the data were grounded in Lev Vygotsky’s developmental theory of intellectual ability and Robert Steinberg’s triarchic theory of multiple forms of intelligence that were congruent with the epistemology of neuroscience confirmed in
Judy Willis’ research conducted as a middle-school classroom teacher after being a certified neurologist for 15 years. The researcher used background knowledge from Dr. Rose Pringle’s assessment class, the “science of learning” from resident doctors at the University of Florida’s Shands at Jacksonville, the Jacksonville’s Community’s Council Inc.’s (JCCI) research, and neurological information about the functional magnetic resonance imaging (fMRI) brain-scanner. Since the fMRI was incapable of reading thoughts, the researcher asked questions, used “think-alouds”, interpreted oral and written reader responses, and made assumptions about eye-movements using a modified version of Ruby Payne’s observation techniques. Consequently, teaching and learning were “arts”, not science, a limitation of the study.

However, the findings revealed that the participants were underperformers academically, since they had acquired only the active rehearsal cognitive strategy, yet their FCAT reading levels ranged from 1 to 4.
Excess stress and threat in the school environment may be the single greatest contributor to impair academic learning (Jensen, 2005, p. 52).

Introduction

Boys in the United States experienced problems (Kindlon & Thompson, 2000). Some of the problems included a high “. . . suicide rate, binge drinking, steroid use, undiagnosed depression, academic underachievement, and . . . car crash[es]” (p. viii). These concerned issues were noticed by educators long before the symptoms were documented by the mass media. More boys, for example, than girls were also quitting high school However, the girls were graduating and completing their post secondary education (Kindlon & Thompson, 2000). According to a study of 42 countries in the world, girls were better readers --a vital skill for academic success-- than boys (OECD Education Report, 2003). Although there was a global gender gap in reading scores, the media and some educators said that it was the “fourth grade slump” that caused the problem. Therefore, a solution to the problem was expected from elementary school educators (Welch, St. Juste, Bowie, 2004).

According to the literature, the global causes of the problems were complex. However, the media and politicians in the United States gave simple solutions to correct the “fourth grade slump” in reading scores for both boys and girls (Torrance, 1977). Consequently in Florida, the political pressure to raise reading levels in the elementary school became a governmental mandate (Welch, St. Juste, Bowie, 2004). In order to encourage African American pupils to love reading at an early age, the educators began to explain to parents the value of children’s literature (Tatum, 2006). As a cultural group, African Americans valued oral communication (Heath, 1983; Sternberg, 1977b; Welch, 2003, 2003c), therefore, educators also encouraged parents to read multicultural literature to their children every night (Banks, 2004). Some educators
believed that allowing the child to give oral response to stories about the subcultures in the literature when the parents finished reading was the initial step for the reader response process (Kastin, Kristo, & McClure, 2005; Tatum, 2005, 2006, Weinstein, et al., 1983). In this vein, for African Americans to perform well on state mandated tests, the two suggested solutions, however, were insufficient to close the achievement gap (Welch, 2003c). By increasing the usage of children’s literature and trade literature at home and in the elementary classroom, perhaps, the reading problem was solved for some upper and middle class Western, European American children. But with other social classes and African American boys who more often underperformed academically (Gadsen & Wagner, 1995) than all other cultural groups (Tatum, 2005), a more direct approach was suggested for one school district (JCCI 1992, 2003, 2004).

Researchers like Newkirk (2002) and Hacker (2003) also documented the problems of boys’ academic underachievement and their social problems in the United States and gave some suggestions for correcting their problems in the dominant culture. As a subculture, however African Americans had lower reading and writing scores (Ogbu, 2003); therefore, the majority of the empirical studies addressed the achievement gap between black and white students (Singham, 1998). Even though African Americans boys had lower reading and writing scores than African American girls, there were few empirical studies about African American cognitive study habits and learning skills, both of which were vital for developing literacy for academic settings (Ogbru, 1995; Sternberg, 1984; Weinstein et al., 1983). According to the literature, the “reading problem” for African Americans was systemic because for centuries it was unlawful for African Americans to learn to read. After being emancipated, African Americans were left to survive and overcome a legacy of chattel slavery in an isolated subculture. Therefore, a more direct approach was needed to solve the literacy problem, not just for elementary school teachers
to correct the “fourth grade slump.” Therefore, the solution remained elusive for the entire culture of the United States to solve (Thernstorm & Thernstorm 1997, 2003) because of the stressful elements in society and the complexity of the problem.

**Statement of the Problem**

Being descendants of chattel slavery, segregated ghettos bred in squalor, poverty, and crime, as well as being victims of a marginalized social class for centuries, some African Americans found it very difficult to overcome a legacy of institutional racism, class, economic deprivation, and other forms of hegemony to achieve academically in school (Kozol 1996, 1991) even though schools were no longer racially segregated by law in the United States. In contrast, individual academic achievement among African Americans existed, in spite of being declared 3/5 of a person by the United States’ *Constitution* when it was initially ratified, forbidden by Jim Crow laws to learn how to read and write, and mandated to attend racially segregated schools using out-dated textbooks after newly adopted ones were issued to urban European American schools in the South (Lewis, 1993). The individuals who succeeded against the odds were known as the Talented Tenth, according to W. E. B. Du Bois (Lewis, 2000; 1993). On the other hand, what provisions were created to address the education of the remaining 90%?

Du Bois, Harvard University’s first African American to earn a Ph.D. in social science in 1886 with his dissertation being “The Suppression of the African Slave Trade in America”, did not address the issue of educating the African American masses (Lewis, 1993). When he coined the term “the Talented Tenth”, the debate during the early 1900’s was whether African Americans should engage in liberal arts education or industrial education that Booker T. Washington preferred (Lewis, 1993). Regardless of the curriculum, the education of the ninety percent was never seriously addressed; therefore, the neglect, in time, gave rise to the National Association for the Advancement of Colored People’s (NAACP) *Brown v. Board of Education*
lawsuit in 1954 (Lewis, 2000). However, little was written about the Florida NAACP’ case
*Hawkins v. Board Control* also in 1954 when a Supreme Court ruling ordered the integration of
the University of Florida (Bergman & Bergman, 1969). However, the lessons learned in the
Florida case were used in briefs for desegregating the public schools in Florida (Welch, 2003c).

Although the United States Supreme Court mandated to equalize educational facilities and
opportunities, little attention was given to the curriculum’s content and pedagogy to address
educational outcomes for African Americans in general (Landgrat, 2004). Consequently, the
general neglect emerged in Gunnar Myrdal’s (1994, 1996) research and much later Alfred
Tatum’s (2000, 2005, 2006) writings. However, the more direct approaches of why some
African American boys underperformed academically were not addressed (JCCI, 2004). Some
African Americans boys bred in the culture and underclass were not being responsible for their
own education (Tatum, 2006; Ternstrom & Ternstrom, 2003), while Dubois’ Talented Tenth
were successful (Franklin, 2005; Lewis, 2003; Tatum, 2006). In the same vein, there were few
empirical studies to identify cognitive strategies that the Talented Tenth used to achieve
academic success were equally rare, in spite of the hostile, political and socioeconomic
environment, since the prevailing attitude in the United States was that African Americans were
inferior intellectually (John-Steiner, 1997; Lewis, 1993).

As the Talented Tenth continued to succeed in the mainstream’s political and
socioeconomic arenas, they were denied Civil Rights (Ternstrom & Ternstrom, 1997). Many
fled to Europe and Africa while others sought to use arts-and-letters “. . . to change society in
order to be partly accepted into it” (Lewis, 2000, p. 172) through the conduit of the Harlem
Renaissance. Once again, the education of the 90% of the descendants of slaves in the United
States was ignored while the Harlem Renaissance gave rise to the literary Negritude Movement
in Paris, France at the University of Paris in the 1930’s (Ba, 1971) without achieving civil rights in the United States. Constitutionally, each state was responsible for the education of its citizens, including the descendants of slaves, “... a segregated and subjugated caste ...” (Thernstrom & Thernstrom, 1997, p. 544). The United States Supreme Court’s ruling of Brown v. Board of Education forced the states’ educators to address how to educate the neglected populous, while the passage of the Civil Rights Act of 1964 ratified the goals of the Talented Tenth (Clay, 1993).

Of course the implementation of the law was a different matter (Lewis, 2000). Some states even avoided recommended remedies for equal educational access and opportunities (Allen, 1989). Instead of conducting research to determine how to assure positive educational outcomes, educators engaged in busing (Thernstrom & Thernstrom, 1997), used low test scores to proclaim African Americans’ racial inferiority (Ziegler, 1995), experimented with Afrocentric curricula to counteract the Eurocentric ideas of racial superiority (Asante, 2001), and tracked students into special education classes to create segregated classes within racially integrated schools (Kozol, 2005; Skrtic, 1995).

First of all, some educators, politicians, and legal strategists sought ways to implement the 13, 14, 15 Amendments of the Constitution, Brown v. Board of Education, and the 1964 Civil Rights Act to address the inequities in society, while changes were taking place in the academy of psychology (Weinstein, Underwood, Wicker, & Cubberly, 1979) that impacted the empirical research about academic underperformance (Weinstein, Wittrock, Underwood, & Schulte, 1983) and the pedagogy of literature (Rosenblatt, 1968, 1989, 1995). Later, a new branch of psychology emerged as cognitive psychology influenced by cognitive scientists’ development of the computer as an information-processing instrument utilizing artificial intelligence, in spite of B. F. Skinner’s behaviorism that dominated educational practice for more than four decades.
(Holland, 2002). Since behaviorism was the ideology used for assigning students to special education classes, the constructivist’s instructional approach in the classroom further challenged the behavioral approach for teaching and learning (Noll, 2001).

Second, the cognitive psychologists began to conduct empirical research to address how students studied and learned new information in order to enhance their performance on standardized tests (Weinstein & Mayer, 1988). Using this educational approach, some cognitive psychologists tended to rely less on Alfred Binet’s theory about IQ tests to predict successful academic performance (Sternberg & Pretz, 2005; Weinstein & Hume, 1998). Third, Rosenblatt’s (1968, 1985, 1989, 1995) transactional theory for teaching literature emphasized focusing on the reader’s reactions and responses, rather than the author’s meanings and views. Like the cognitive psychologists, Rosenblatt’s approach shifted to focusing on the inner thoughts of the reader (Rosenblatt, 2003). Collectively, these three paradigm shifts emphasized the inner forces of learners to overcome academic deficiencies through cognitive development (Bruer, 1993; Cai, 2002; Comer, 2004; Feuerstein, 1980).

Unlike John Bruer (1993) and Reuven Feuerstein (1980), Mingshui Cai (2002) advocated using multicultural literature to empower students while embracing the major changes in science and pedagogy. Utilizing Rosenblatt’s (1968, 1985) transactional theory, Cai (2002) also encompassed cognitive scientists’ and cognitive psychologists’ research approaches to investigate reader response. By so doing, Cai also departed from the behavioral scientists’ research approach of avoiding studies of “... observed mental processes through introspection” (Skinner, 1990, p. 1206). In contrast, Cai (2002) encouraged “research in the cognitive-developmental dimension of reader response ... [in order to look] into the reader’s cognitive ability to comprehend and interpret a literary text, the strategies they use[d] to process the text,
patterns of responding behavior, and the development of cognitive ability through responding to literature” (pp.155-156). This research approach was in keeping with cognitive psychologists (Bruer, 1993; Sternberg & Pretz, 2005) and neurocognitive educational psychologists (Jensen, 2005; Sprenger, 2005; Weinstein, 2003); all of whom were interested in empowering students to perform successfully in society.

Mingshui Cai (2002) also encompassed African Americans’ struggles of overcoming hegemonic barriers that thwarted their social and civil justice by reframing the origins of the oppressive political, economic, and social conditions to apply to all racial minorities and other marginalized groups seeking equality in a democratic society (Takaki, 1996). To this end, Cai sought to infuse “...multicultural literature into the curriculum [as a]...part of a democratic educational reform that addressed issues of equality and equity in schools” (p. 133). By so doing, he hoped that multicultural literature would challenge and change “...the dominant position of all white literature in the classroom” (p. 133). Cai’s approach of using multicultural literature as a conduit for eradicating some of the imbedded social and attitudinal issues that were hostile to a positive learning environment for educational outcomes for African American boys (Tatum, 2005; 2000) were “...generally acknowledged but [they were] not totally accepted” (Cai, 2002. p. 133). In the same vein, Cai’s encouragement of and pedagogical benefit from cognitive development research were equally supported by cognitive psychological research (Weinstein, 2003; Sternberg & Pretz, 2005), but the approach was not widely accepted for empowering some students’ learning capabilities (Skinner, 1990). Although Edward Thorndike (1984, 2005) acknowledged that psychology must evolve, B. F. Skinner (1990) avoided the “introspective.” After Skinner’s death, however, neuroscience, cognitive psychology, and neurophysiology flourished. These disciples were considered in the
ethnographic case study and some of their theories were incorporated in identifying and suggesting a possible solution to the problem, as presented in the Purpose of the Study in the next section.

**Purpose of the Study**

The purpose of this ethnographic case study was to discover how 17 underperforming African American boys processed information from children’s literature through responses to generate cognitive strategies applicable for studying, learning, and recalling data for academic success. The research approach incorporated transactional theory, cognitive psychology, neuroscience, and multicultural literature espoused by Mingshui Cai’s (2002) multidimensional model for investigating cognitive development through reader responses to multicultural literature. The ultimate goal of the research, however, was to identify how some underperforming African American boys used cognitive strategies to process texts so that pupils with similar academic behavior might be remedied with the appropriate social constructivist’s postmodern pedagogy. An understanding of underperforming African American boys’ cognitive behavior in processing information from reading children’s literature would assist educators, parents, and policy makers and parents to create positive educational outcome, so that pupils would be a more engaged in their own cognitive development. Because studies of this nature in education were rare, a cross-cultural and interdisciplinary approach of several disciplines was adopted for the study.

**Significance of the Study**

Research focusing on the cognitive developmental dimension of pupils’ responses to children’s literature was rare, in general, with research about African American boys’ reader responses also rare. Since boys in general were performing less well academically in the United States, with some African American boys’ academic performance on the very bottom rung of
success, the findings from this study would add to the body of knowledge about how to provide instructional interventions to counteract and/or correct certain academic behavior while teaching children’s literature in language arts programs. Although the study used children’s literature to document how some African American boys processed texts mentally to generate reader response, effective cognitive strategies for processing information for recall was vital for successful academic performance and problem solving; consequently, the findings had broad pedagogical implications for parents, educators, and policy makers, and most of all African American boys themselves as pupils in the elementary school classroom for acquiring positive educational outcomes.

**Definition of Terms**

There were several terms vital to this study. They were *reader response*, *cognitive*, *cognitive strategies*, *cognitive developmental strategy*, *information processing*, *children’s literature*, *underperforming*, and *underperformance*.

*Reader response* was the output which may be spoken, written, drawn, sung, danced, or played on an instrument after mentally and emotionally processing a text. In this study, however, *reader response* referred to the pupil’s spoken or written interpretation of a text as the output of remembering characters and events, determining the meanings of the vocabulary, summarizing the information, and drawing inferences about a story. Collectively, the mental processes to generate the output was called the transactional theory, generally associated with and espoused by Louise Rosenblatt (1968, 1989, 2003) for teaching literature.

*Cognitive*, a derivative form of cognition, was a mental process concerned with the acquisition and interpretation of ideas, including perception and thinking (Sutherland, 1996). The term was broadly used in the study defined by Reber and Reber (1985) “. . . to refer to such activities as thinking, conceiving and reasoning” (p.128). Reber and Reber (1985) also said,
“Most psychologists used the term to refer to any class of mental behaviors with underlying characteristics of an abstract nature involving symbolizing, insight, expectancy, complex rule use, imagery, belief, internationality, and problem solving” (p. 128). In brief, cognition was the “understanding, acquisition and processing of knowledge, or more loosely [stated], thought processes” (Stuart-Hamilton, 1995).

Cognitive strategies were sometimes used as one concept to describe a series of information processing activities. The collective concept contained significant connotations in educational psychology in general and cognitive psychology in particular. In this study, however, a cognitive strategy was a deliberate, planned sequence of mental activities, not a single event (Kail & Bisanz, 1982). Therefore, cognitive strategies were not the same as skills, since strategies would not be a procedural act for application in the same manner (Dole, Duffy, Roehler, & Pearson, 1991; Duffy, 2003; Pressley, 1993, 1995). Depending on the nature of the activity, the mental process might be conscious or an unconscious act (Reber & Reber, 1985). Collectively, the phrase cognitive strategy in this study meant selected mental processes derived from the brain’s information-processing neural energy (Solo, 1994) and was chosen by the learner from alternative activities with the intention of attaining the goal of completing a task.

Cognitive developmental strategy referred to strengthening systematic patterns for selecting a certain set of thought processes created by an individual to generate a response to oral language or written texts and to solve specific problems to complete a particular task (Cai, 2002; Duffy, 2003; Levine, 2007; Pressley, 1993, 1995).

Information processing referred to the neurobiological functions that gave rise to thoughts for creating a response. In a general sense, information processing was one of the four main theoretical approaches of cognitive psychology, relating to the process of human thoughts
involved in learning and perception (Sternberg, 1977, 1988; Taylor, 2002; Willis, 2006, 2007c). However, information processing as a cognitive strategy for learning referred to thoughts created for effective images and explanations of concepts and the general use of reasoning skills to gain knowledge (Levine, 2002, 2007; Weinstein, Woodruff, & Await, 2001). Specially, information processing in this study meant one of the sixteen (16) activities humans evoked to study, learn, and recall data (Weinstein & Mayer, 1986; Weinstein, Woodruff, Await, 2001, 2004) in order to generate a reader response that was also applicable for successful academic performance.

Children’s literature .”..was good-quality trade books for children from birth to adolescence, covering topics of relevance and interest to children of those ages, through prose and poetry, fiction, and nonfiction” (Tomlinson & Lynch-Brown, 2002, p. 2). Since elementary schools traditionally enrolled students from ages 7-13 years old, trade books for that age group were commonly called children’s literature, while works written for readers from ages 14-18 years old were called adolescent or young adult literature (Anderson, 1991).

Although some authors considered “ . . . children’s literature to span the age group . . . [from] birth through 18” (Anderson, 1991, p. 3), in this study children’s literature meant high quality trade books covering a wide variety of literary genres, magazines, and newspapers illustrated by outstanding artists or photographers depicting accurate images of ideas presented in texts written and designed for youth from birth through age 13 (Anderson, 1991).

Underperforming and underperformance referred to below average results on tests, learning inventories and in-class participation. To describe these behaviors, the term underperforming and underperformance were used instead of racial-coded words for identifying American Americans’ academic behaviors such as “at-risk”, “under achievement”, “learning disabled”, “disadvantaged”, or “special education.” The meanings of the commonly used racial-
coded words, in comparison to the preferred terms, *underperforming* and *underperformance*, were indeed subtle but well intended, for the racial-coded words tended to suggest negative, inherited deficits bred in the spirit of blaming the victim and racial inferiority often described as the deficit model (Tucker, 1999). In contrast, African Americans enjoyed performing (Heath, 1983; John-Steiner, 1997; Tucker, 1999). They understood how to perform even though sometimes their performance was somewhat uneven and counterproductive in academic settings (Ogbu, 1978; Sternberg, 1988); therefore, in this study *underperforming* and *underperformance* were more appropriate for discussing cognitive strategies and information processing for generating reader responses that were equally applicable for studying, learning, and recalling data successfully for academic settings (Welch, Bowie, St. Juste, 2004).

In the same vein, culturally sensitive ideas were also avoided in the review of the literature in Chapter 2 pertaining to the social effects on learning, cognitive process for learning, and reader response for cognitive development for 17 African American boys that represented the antithesis of W. E. Du Bois’ Talented Tenth because their academic behavior tended to suggest that they had not yet discovered how to perform successfully (Comer, 2004; Levine, 2007),

The term African American in this study referred to people of African descent born in the United States that formed an ethnic sub-cultural group. Therefore, a reference to people by color such as black or white meant a variation of culture, not race (Graves, 2004), since one of the five essential elements of racist thought indicated, “. . . biological races exist[ed] in the human species” (p. xiv). Heeding the advice of Joseph Graves (2004), the researcher used the term “African American.” In the review of literature, however, the terms “white” and “black” used by other authors were respected and maintained.
Consequently, this study concentrated on the culture of the neglected 90% or the underclass (Tatum, 2005; Williams, 2006), which most of the Talented Tenth researchers avoided, in order to answer the guiding question for the study: “What kind of cognitive strategies did some underperforming African American boys use for reader response to children’s literature that were equally applicable for studying, learning, and recalling data for academic success?”

Before these question was answered, the researcher explored the complexity of the three major strands “Social Effects on Learning”, “Reading for Cognitive Development”, and “Cognitive Processes for Learning” that gave rise to the dilemma of the underperformance of some learners as discussed in Chapter 2.
CHAPTER 2
REVIEW OF LITERATURE

As of this writing, what is missing in the mass media and the mainstream intellectual literature is a single in-depth article (sic) or book on the role of white racism in creating the foundation for current racial conflict (Feagin & Sikes, 1994, p. 361).

Introduction

The review of literature was organized according to three strands: (1) “Social Effects on Learning”, (2) “Reading for Cognitive Development”, and (3) “Cognitive Processes for Learning.” According to Eric Jensen (2005) and Judy Willis (2006), stress, fear, and/or anxiety thwarted learning more so than any other factor. Therefore, the social world (Dyson, 1993) of African American boys’ culture was divided and discussed for the first strand, “Social Effects on Learning.” The subculture was analyzed and discussed through eight cultural lenses to identify the hostile, external elements that created a negative environment for academic learning. However, the reviewed literature suggested for the second strand revealed that culturally conscious multicultural literature encouraged reader response from African American boys’ to use creative and divergent thinking when they read about their own culture and lived experiences (Tatum, 2000, 2005, 2005),

The third strand, “Reading for Cognitive Development”, discussed five areas: (1) reading selections for African American boys, (2) reading skills for cognitive development, (3) information-processing skills of disadvantaged readers and learners, (4) information-processing competencies and reader response, and (5) the American Psychological Association (APA) Task Force Report on Intelligence. The literature that explained “the science of learning” documented how the amygdala responded to stress while being exposed to new learning experiences. Although the brain served in a plethora of ways to facilitate human bodily functions, one of its functions during the learning process, however, was to channel an uninterrupted flow of
information through the amygdala from the short-term memory to the long-term memory (Willis, 2006). Therefore, when pupils were free from stress, fear, and/or anxiety in a relaxed, playful state while engaged in social constructionist’s activities, they tended to remember more details that enhanced academic performance even when information was processed in creative and divergent ways (Bruner, 1976; Willis, 2007c). For example, Gerald Duffy (2003, 2003b) and Michael Pressley (1993; Pressley & Woloshyn, 1995) accomplished tangible, research results in the area of reading for cognitive development. However in 1999, the American Psychological Association’s (APA) Task Force Report explained the limitations of documenting similar research’s results and the specific context of the human brain’s mental capacity for learning. As of 2007, the functional magnetic resonance imaging (fMRI) machine that scanned the brain while processing information still did not removed all of the boundaries that constrained the perimeters of neuroscientist and cognitive neuroscientist research. Therefore, all of the APA’s concerns regarding intelligence were not addressed for empirical research. Therefore, researchers relied on oral responses, “think-alouds”, observation of eye-movements, and body language in general to make assumptions about the subjects’ thought or to interpret written data that represented thought (Restak, 2006).

The African American boys’ culture embedded within their social world that related to literacy and learning which often occurred in hostile, stressful conditions was discussed in the first section, “Social Effects on Learning.” Alfred Tatum (2005) described the stressful conditions, as living in turmoil.

**Social Effects on Learning**

Researchers often did not analyze culture when they discussed the academic performance and achievement of African American boys (Spencer, Noll, & Harpalani, 2001). Because they were members of a racial minority that were forced by law to live apart from the rest of the
society, a discussion about their cultural world would require an examination of the American culture within the context of “race,” a sensitive, so-called taboo topic, according to Beverly Tatum (1992) that the dominant society often ignored (Feagin & Sikes, 1994; Rooks, 2006). But the social dialogue about race changed in the United States, including within the academic institutions of higher education’s teacher-education programs; hence, the African American boys’ social world in academic settings also experienced change (Williams, 2006). Therefore, to understand how some underperforming African American boys systematically responded to children’s literature in academic settings, it was necessary to explore several domains of their cultural world that possibly thwarted learning, in general.

Nevertheless, African Americans routinely performed less well in academic settings in general and on standardized tests in particular (Thernstorm & Thernstorm, 2003). Since this behavior determined their academic outcomes for learning, the researcher examined the negative social effects within the culture that possibly caused stress, fear, and/or anxiety and documented social constructionist’s interventions to overcome the inhibitors, according to advice that Judy Willis (2006), “a board certified neurologist that became a middle school teacher” (Hipsky, 2007) advocated for teaching and learning. In that vein, the culture was examined through nine lenses for “Social Effects on Learning”: (1) A Socio-historical Perspective: African Americans’ Quest for Literacy, (2) General Attitude Toward African American Males, (3) Refusal to Learn: I Won’t Learn From You, (4) White Racism: The Struggle for Its Deconstruction, (5) Gender, (6) Poverty and Class, (7) Class, Culture, and African Americans, (8) Monocultural Curriculum, and (9) A Low Literacy Environment. The first subtopic, “A Socio-historical Perspective: African Americans’ Quest for Literacy”, explained how three African American men were involved in creating the public school system for all people in the State of Florida. Ironically, after
establishing the public school system, most African Americans were later banned from having an equal access to education, in general and literacy in particular, as discussed briefly in the next section.

A Socio-historical Perspective: African Americans’ Quest for Literacy

W. E. B. Du Bois’s (1975) Black Reconstruction in America: An Essay toward a History of the Part Which Black Folks Played in an Attempt to Reconstruct Democracy in America, 1860-1850 chronicled how people were depressed and anxiety-ridden in the South after the Civil War. In the stressful era, according to Du Bois, Josiah Thomas Walls, H. S. Harmon, and Jonathan C. Gibbs were the chief architect to construct the public system in Florida.

In brief, Josiah Thomas Walls was a successful farmer in Gainesville, Florida and taught school in Alachua County before being elected to Congress in 1870 and 1874 (Bergman & Bergman, 1969), in spite of the Democrats’ objections (Clay, 1993). However, Walls was elected to serve in the House of Representatives and then later as a state senator in Tallahassee, Florida (Du Bois, 1975). As a state legislator, he used his political clout to help develop the public school system along with Harmon and Gibbs (Du Bois, 1975).

In like manner, H. C. Harmon was a member of Florida’s Reconstruction government and was one of the leading, vocal advocates for literacy (Franklin & Moss, 2000). His educational, political achievements or political activities did not equal Walls’. But he worked closely with Walls and Jonathan C. Gibbs who also serviced in the Reconstruction government. Their collaboration was effective. First, Gibbs was the Secretary of State in 1868 and later became the first Superintendent of Public Instruction in 1871 (Du Bois, 1975). When Gibbs began his duties, schools in Florida were mostly decentralized and private (Du Bois, 1975). Unfortunately in 1864, all Florida’s schools were closed until the African American Episcopal (AME) Church, the African Colonization Society of New York, missionary societies, and the Freedman’s Bureau of
1865 established about 30 private schools (Du Bois, 1975). Most, however, were inadequate (Lewis, 1993). In fact, the centralized system for public education in Florida that began in 1869 was under funded (Du Bois, 1975).

Nevertheless, in spite of the stressful conditions, Gibbs reported to the National Educational Association (NEA) that Florida had increased its enrollment 25% with a 33% increase in total expenditures (Du Bois, 1975). After Gibbs died of an apoplexy in 1874, the centralized public school system in the state began to shun African Americans in 1876 when the Democrats gained additional political control (Du Bois 1975). Equally, the 676 public schools began to lose the democratic fervor of equality and opportunities for all (Du Bois, 1975). Gradually, the social conditions toward African Americans’ quest for literacy were met with much disdain, hostility, and violence. Eventually, access to education for them descended rapidly under the Black Codes that mandated racially segregated one-room-shacks throughout the State of Florida and the South in general. The work of Walls, Harmon, and Gibbs were temporarily dishonored by racism (Dubois, 1975). However, the “Talented Tenth”, a description that Du Bois used to describe Americans that succeed against all odds, continued the quest for literacy.

In spite of the fearful and stressful milieu, a theme emerged in the thinking of W. E. B. Du Bois, Carter G. Woodson, and Booker T. Washington. Of course, Du Bois’s ideology toward higher education was different from Booker T. Washington’s because he preferred for the masses to place an emphasis on gaining capital through vocational education. However because Washington sent his children to college, he too believed in higher education. After Washington’s death, in 1916, African American leaders convened the Armenia Conference at Joel Spingarn’s home (Lewis, 1993) and agreed to advocate for equal education for all students, the end of lawlessness, franchise and the protection of civil liberties (Lewis, 2000). Since Joel
Spingarn was the president of the National Association for the Advancement of Colored People (NAACP) and the organization was a sponsor of the Armenia Conference, their consensus signified a unified, informal national agenda (Lewis, 2000). These efforts continued the work of Walls, Harmon, and Gibbs in Florida. Therefore, the ardent quest for literacy continued.

Second, on a national level, Carter G. Woodson (1990) maintained in *The Mis-education of the Negro* that neither the Talented Tenth or the vocationally trained African Americans was capable of addressing the plight of emancipated slaves because they were “. . . unconsciously . . . perpetuating the regime of the oppressor” (p. xi). Few African Americans had Woodson’s extraordinary zeal for education and his relentless drive to be inner directed and self-actualized (Bergman & Bergman, 1969). For example, he earned a Ph.D. from Harvard University in 1912 in history from Harvard University (Bergman & Bergman, 1969). Therefore, Woodson knew the prevailing historical curricula’s literature was racially biased. In many instances, most educated African Americans had a distorted racial view of the world and themselves. Through formal education, they also learned that they were inferior. Woodson further described that learning of this kind was psychological genocide, and he stated: “The Negro [lacked a] mental power, which [could] not be expected from ill-fed brains” (p. 126).

Woodson had the social license to address African Americans in the above manner if they chose to remain psychologically enslaved (Bergman & Bergman, 1969). For example, he was born economically poor in Virginia, but his quest for education was relentless when he enrolled in high school at age 20 (Bergman & Bergman, 1969). Later, he worked his way through Berea College and graduated with honors. Then, he went to the University of Chicago, received a B. A. degree in 1907, and a M. A. in 1908. Later, he went to the Sorbonne in France for graduate work before receiving the Ph. D. degree (Bergman & Bergman, 1969). Believing in self-
development, Woodson (1990) challenged African Americans to have patience, confidence, discipline, become competent in an area of interest, and acquire knowledge in order to create a product or provide a service useful for society, in spite of the prevailing social conditions of the oppression (Woodson, 1990). When Woodson wrote these beliefs in The Mis-education of the Negro, he underestimated the details of the dire straits that some African American endured trying to survive in the hostile social environment.

Literacy for African Americans within the larger sociological context was not a part of the public debate before Karl Gunnar Myrdal (1996) of Sweden conducted a comprehensive study of African Americans’ social, economic, and political life in the United States in 1944. He also described how the hostile race relations affected every facet of their daily lives. The study was first published in 1944 in two volumes as An America Dilemma: The Negro and Modern Democracy.

In Chapter 42 of Volume II, (1996) in a later edition, Myrdal discussed schooling and education. Myrdal discovered that “education . . . [in America meant] an assimilation of white culture” (p. 879) (emphasis added). Therefore even in segregated educational institutions, the American Creed was taught when in reality the opportunities were not forthcoming for African Americans because of their racial caste (Myrdal, 1996). He further explained that the false hopes caused more African Americans to drop out of school more so than other pupils (Myrdal, 1996).

Myrdal (1996) gave some helpful advice for African American’s schooling. He believed Negro children needed an education to make them adaptable and mobile in the larger society (Myrdal, 1996). Understanding the severity of institutional racism, Myrdal (1996) further said that the African American needed to achieve proficiency in literacy in spite of his social conditions. Myrdal also believed that the Negro needed an equal opportunity for schooling.
However, he knew that the Negroes’ quest for literacy would be challenged (Myrdal, 1996). Two decades later, Arnold Rose (1964) published *The Negro Problem in America* as a condensed version of *An American Dilemma*. As Myrdal (1964) explained in the Foreword that “the Negro problem” still existed, especially in trying to have equal funding for schools because poor districts generated less money from the tax-funding formula used in most states. Yet years later, the United States Supreme Court’s mandate in *Rodriquez v. San Antonio* did not give any relief to help educate children born in poverty and attended improvised public schools (Kozol, 1992, 2005).

Similarly, James Doig Anderson’s (1988) book, *The Education of Blacks in the South, 1860-1935*, explained how African Americans struggled to liberate themselves from peasantry because they believed that education was the equalizer as Horace Mann articulated. But, “...public education for all at public expense, in the South, was a Negro idea” (p. 6). White planters did not want the rural African Americans to become educated because they feared that it would destroy the plantations’ labor-pool supply (Anderson, 1988). In contrast, the white urban industrialists believed in a public school system for all, as long as African Americans remained disfranchised and stayed “...permanently in a lower-class status” (Anderson, 1988, p. 280). Hence, the American public school system and schooling for citizenship were deliberately designed as a two-tiered system for two different ethnic groups (Anderson, 1988). Unfortunately, most African Americans did not have the acumen to overcome the obstacles as Carter G. Woodson suggested in *The Mis-education of the Negro* (Woodson, 1990).

William Baldwin, Robert Ogden, Franklin H Giddings, J. L. M. Curry, James G. Phelps Stokes, John D. Rockefeller, Sr., and General Samuel Chapman Armstrong and gave their individual reasons for “investing in black education”; all of them were from the advantage points “of northern capital and White southern expediency” (p. 22). They all dreaded the ominous warnings of Alexis de Tocqueville that the treatment and social conditions of African Americans would eventually cause a revolution like it did in France. In some respect, Watkins (2001) agreed with Anderson’s (1988) research. Like the planters, these powerful wealthy men were interested in building a capitalist economy through a corporate-industrial state with exploited labor (Watkins, 2001).

Avoiding the economic theme of exploitation, in more recent times, Stephan Thernstorm and Abigail Thernstorm (1997) used governmental documents and other secondary sources for writing *America in Black and White*. They also used Gunnar Myrdal’s *An America Dilemma* as a barometer for analyses of their data. Thernstorm and Thernstorm (1997) noted that Myrdal discovered, “. . . Americans saw schools as the solution to almost every problem that ailed the society . . .” (p.38). Nevertheless, literacy for African Americans was forbidden and not encouraged even after slavery while building a capitalistic system (Myrdal, 1996). In the same vein when Myrdal (1996) conducted a survey in the North and South, “only a third felt that black and white children should attend the same schools” (Thernstorm & Thernstorm, 1997, p. 499). To overcome this kind of attitude would take more than *Brown v. Board of Education* to deconstruct racial discrimination cited in *America in Black and White* as well as in *An American Dilemma*. Historically, the Talented Tenth that were leaders believed in the American Creed. They also believed in a participatory democracy and literacy achievement for *all* Americans. Hence in more modern times, they chose to deconstruct the residue of slavery that created two
societies, one for whites and one for blacks by challenging *Plessy v. Ferguson* with *Brown v. Board of Education* (Franklin, 2005; Lewis, 2003) in their quest for equal access to literacy. With the success of *Brown*, the first tier of equality was to address the general milieu that affected the uneven educational outcomes of African Americans in general and African American males in particular as discussed in the next section.

**General Attitude toward African American Males**

The African male had a historical memory of being a cherished, privileged member of the society in Africa (Welch, 1974). In America, however, he experienced the opposite social status, which caused stress (Franklin, 2005). Before and after the Civil War, the African male socially sought to escape from the historical color caste in order to engage in the participatory democracy and provide for his family, but he was denied (Thernstorm & Thernstorm, 1997). For example, immigrants from Europe received help to assimilate into the American society while the law excluded African Americans (Thernstorm & Thernstorm, 1997). To counteract the hostile social exclusion, a few African American males encouraged the idea of re-settling in Africa (Franklin & Moss, 2000), while members of the Nation of Islam, also known as Black Muslims, in the 1960’s sought “... a segregated territory within the United States” (Rose, 1964, p. xxi). The African American males also sought separation because they were not allowed to compete freely in the market economy to earn ample capital to raise their families as free people without fear (Franklin & Moss, 2000). Others sought ways to circumvent the racial hostility in their continued quest for literacy (Hrabowski, III, Maton, & Greif, 1998), even though the dominant society viewed African American men as a source of cheap manual labor (Franklin, 2005). For this social role, there was no need to be educated the same as others in the society (Anderson, 1988; Watkins, 2001).
Nevertheless, in Beating the Odds: Raising Academically Successful African American Males, Hrabowski, III, Maton, & Greif’s (1998) research covered the “. . . backgrounds of parents . . . to gain a three-generation perspective” (p. 189). Their research found that the parents of the academic achieving African Americans males used religion to counteract notions of racism, focused on hard work and strict discipline to overcome adversity, and valued education and academic success for personal goals and achievement (Hrabowski, III, Maton, & Greif, 1998). These parents also maintained a high level of involvement in their children’s lives as they exhibited clearly defined familial roles (Hrabowski, III, Maston, & Greif, 1998). Historically, these kinds of families created the Talented Tenth even during slavery (Du Bois, 1969; Woodson, 1990).

Refusal to Learn: “I Won’t Learn from You”

Arthur Meier Schlesinger, Jr. (2001) in The Disuniting of America: Reflections on a Multicultural Society wrote: “Most white Americans through most of American history simply considered colored Americans inferior and inassimilable” (p. 271). When teachers’ attitudes expressed white supremacy in the classroom, however, some African American boys refused to learn anything they taught as protest (Kohl, 1991). Kohl further explained that some white teachers felt threatened and treated “. . . very young African American boys as if they were 17 [years old] over 6 ft. tall, addicted to drugs and menacing” (Kohl, 1991, p. 17). Therefore, for self-protection from a hostile learning environment these pupils declared, “I won’t learn from you” (Kohl, 1991). This kind of mind-set protest affected both teachers and pupils psychologically in segregated or racially integrated academic settings. When pupils deliberately did not try to learn as a way of protesting white supremacy, teachers’ self-fulfilling prophecy about African Americans’ inability to learn was re-enforced (Kohl, 1991).
To complicate the academic setting for African American boys when they refused to learn in the classroom, the punishment for their behavior was the placement into special education based on behavioral psychology espoused by B. F. Skinner’s behaviorism (2001) and re-enforced by the cognitive deficit ideology (Brynes, 2001). Operant conditioning theory was based on experiments for training animals to perform certain learned behavior. However, Skinner (2001) applied the theory to humans and educational psychologists adopted it. Therefore, when African American boys did not comply with the prescribed classroom behavior, they were placed into special education classes (Skrtic, 1995).

Skinner (2001) explained his theory of psychological behaviorism in slave/master terms. He argued that the slave driver forced a slave to work with beatings, and when he began working the beatings stopped. Therefore, the correct behavior was re-enforced. Skinner (2001) further explained that aversive control was a pattern in “ethics, religion, government, economics, education [emphasis added], psychotherapy, and family life” (p. 38). In fact, Skinner explained that there were only two ways (escape or attack) for becoming free from government’s aversive control. Importantly, the most damaging illustration of behaviorism in a democratic society was his suggestion that literature of freedom had to be controlled so that it would not cause the oppressed to act in ways to dilute or destroy the power of the government. Specifically, Skinner warned that government would avoid the masses from escaping “. . . by banning travel or putting them in jail, by denying weapons, and by destroying the literature of freedom (emphasis added). The most insidious part of Skinner’s (2001) proposal for maintaining the power elite was to “. . . imprison or kill those who [carried the ideas of freedom] orally” (p.38). In spite of the hegemonic philosophy of the Skinnerian form of psychological behaviorism practiced in society, some African Americans adults concentrated on deconstructing the political power
(Culler, 2003) that oppressed racial minorities. Some, however, paid the ultimate price for freedom in the manner that Skinner suggested (Franklin & Moss, 2000; Lewis, 2000). Unlike some adult political leaders, young pupils in school were not capable of deconstructing systematic learning environments (Culler, 2003) when their teachers used aversive control in the classroom (Skrtic, 1995). Some of these boys just refused to learn (Kohl, 1991) or dropped out of school, which was self-destructive (Tatum, 2003).

Then some of the others that remained in school commonly disrupted the classroom as Ann Arnett Ferguson (2003) explained in *Bad Boys: Public Schools in the Making of Black Masculinity* as they fought against white supremacists’ attitudes. To maintain aversive control (Skinner, 2001), the teachers referred the unruly pupils to the principal’s office (Ferguson, 2003). While being removed from class to be disciplined for poor behavior, the pupils were outside of the classroom and escaped valuable learning experiences, in addition to collecting a long behavioral referral record for being targeted as a candidate for the prison system (Ferguson, 2003; Skinner, 2001). Other African American boys mentally escaped the hostile learning environment by exhibiting passive aggression, such as falling asleep or not listening (Walker, 1992).

Thomas Skrtic (1995) discussed in *Disability Democracy: Reconstructing (Special) Education for Postmodernity* how he discovered that the Skinnerian form of behaviorism was entrenched in public education. Skrtic further argued that to address educational reform in special education, the flawed educational institution must be deconstructed (Culler, 2003), and then reconstructed for a postmodern society. Skrtic had other issues with the inappropriate usage of special education for punishing racial minorities’ behavior, such as tracking pupils in order to maintain segregated classes within integrated schools, and creating compensatory pull-out
programs to ensure lack of access to certain academic classes. Pedagogically entrenchment of this kind caused African Americans boys to be tracked in special education classes because of their social behavior, when they had little or no motivation to learn from negative teachers (Ferguson, 2003; Kohl, 1991; Tatum, 2005).

Some educators counterattacked hostile learning environment and Skinnerian form of psychological behaviorism with an Afrocentric curriculum to engage pupils in learning (Asante, 2001, 1998, 1990; Ziegler, 1995). For example, Skinner’s behaviorism did not acknowledge certain words like “. . . expect, hope, observe, felt, and associate” (Rogers, 2001, p. 42) all of which were embedded in the African worldview as religion and philosophy (Welch, 1974). The African cosmology also encompassed the energy of the dead ancestors by invoking their names and asking for help during human crises, with the faith of receiving a response. This traditional religious practice survived the transatlantic voyage to the new world during the slave trade and manifested in a variety of cultural practices including spiritual music, rituals, religion, and the family structure (Welch, 1974). In Skinnerian behaviorism, the supernatural, paranormal, faith, and spiritualism were merely “contingencies.” Most African Americans, however, called them the manifestations or “workings of God” (Welch, 1974). In view of this, Asante (2001) suggested an Afrocentric curriculum so that African American pupils would learn more about the African worldview and introspection with the choice of strengthening themselves psychologically and spiritually by learning about the historical achievements of Africans and their cosmology (Asante, 2001; Ziegler, 1995).

Others wanted all boys’ African American schools (Boykin, 1986; Porter, 1977; White 2002) that taught an Afrocentric curriculum that emphasized ..”self awareness, self-esteem, . . . self- pride . . . , a positive self-image and self-motivation” (Porter, 1977, p. 71), in order to teach
African American boys how to avoid internalizing white racism. However, other researchers and scholars selected other ways to deconstruct white racism as discussed in the next section.

**White Racism: The Struggle for Its Deconstruction**

White racism existed as an obstacle for Africans’ quest for literacy and their efforts to assimilate into American society before the formation of the United States’ Constitution (Myrdal, 1996). These social conditions bred mistrust, fear, anxiety, and stress in the lives of all in the United States (Lewis, 1993). Since education was the mechanism that European immigrants used to assimilate into the American society and its “white” culture, African Americans wanted the same opportunities. When they were thwarted, African Americans experienced covert racism (Lewis, 1993). But, when the white supremacists denied equal educational access to African Americans in the public schools the oppression was explicit and overt (Lewis, 1993).

Karl Gunnar Myrdal (1996) saw education as being the instrument for learning “white culture.” Therefore, in order for educators to address the issues regarding the social effects of white racism, the concomitants of the adverse behavior needed to be identified and discussed. To this end, Myrdal’s seminal work, *An American Dilemma*, was reviewed to understand white racism and its social effects on learning because his work was the earliest, most comprehensive study of African American’s social conditions in the United States.

As an economist, Myrdal’s (1996) research explained how white racism undergirded the foundations of capitalism. Yet, he ended his research with asserting that the American dilemma was a “pathological problem.” Inadvertently, teacher educators in the past overlooked Myrdal’s research in studying the academic achievement and underperformance of African American children. However, in identifying the negative social effects on learning, the two volumes of *An American Dilemma* were reviewed in the next section to understand the description of “the
pathological problem” as Myrdal assumed. Then, a review of literature in several other academic professional journals (i.e., psychology, medicine, cognitive psychology, psychiatry genetics, genetics, and neuroscience) for synthesis and analysis occurred in order to identify the core ingredients of the pathology. With education, teacher-educators and teachers could specify how to deconstruct racism among Afrocentric and Eurocentric American cultures, so that educational outcomes would be positive for \textit{all} students. The historical context in which Myrdal’s research began, his approach to conduct field research, and his descriptive conclusions and ultimate assumptions were discussed first in the next section.

\textbf{An American dilemma}


Second, Myrdal’s credentials were impressive; he was a . . . ”professor of economics at the University of Stockholm, economic advisor to the Swedish government, and member of the upper house of the Swedish parliament” (Jackson, 1990, p.xiii). Third, philosophically he believed in the Enlightenment and the democratic ideals of the American Creed. Fourth, although Myrdal was an “outsider”, he included influential African Americans that knew the subculture well to help plan the research. (Lewis, 2000). His “outside of the office” researchers
included three of the most outstanding academicians about African American culture and education: Sterling Brown, E. Franklin Frazier, and Charles S. Johnson (Myrdal, 1996). In addition, one of his staff assistants and outside collaborators was Kenneth Clark, the renowned psychologist of Brown v. Board of Education (Lewis, 2000). The physical conditions, along with the majority of the eminent African American scholars as collaborators, created a positive work environment for the research (Myrdal, 1996).

Myrdal’s (1996) observations during his field research shaped the contents of his published study. For example, when he was in Birmingham, AL he saw the inhumane treatment of African Americans, but when he interviewed some of the public officials and businessmen they denied that discrimination existed (Appelqvist & Andersson, 2005). From interviewing many of the other oppressors, Myrdal realized that the informants actually believed in the American Creed, had a moral conscious, and were pragmatic and optimistic about life in general; yet, their behavior toward African Americans did not reflect any of these beliefs. This dichotomy caused Myrdal to understand that “the Negro problem” was created in the minds of white people and was actually the white man’s problem (Jackson, 1990). Myrdal realized that mentally, white people thought black people’s sole purpose in life was to help create a profit for the master race and that the country belonged only to the white man. Fearing that they would not create wealth without black labor, the white man created a color caste for the purpose of exploitation. Outside of the exploitative role, the African American did not exist in the minds of some of their oppressors (Jackson, 1990). To lock the chattel system of slavery in the minds of the African Americans, their oppressors used fear of death and physical abuse (Myrdal, 1996). Out of fear, the oppressed submitted, and their submission was called “the Negro’s place” (Jackson, 1990, p. 190). Since the slave/master relationship was based on fear, Myrdal concluded the race relation...
between white and black people was “pathological.” The situation created a dilemma because the country’s economic system of capitalism was built on white racist’s behavior toward all people of color (Bridwell-Bowles, 1998; Lewis, 2000; Thernstorm & Thernstorm, 1997). Consequently, Myrdal named his work *An American Dilemma* without a suggestion of how to solve the problem. A closer look at “the pathological problem”, however, began in the next section.

**It’s all in the mind: The pathological problem**

Karl Gunner Myrdal concluded in *An American Dilemma* that the race-relation problem in the United States was “pathological.” Although the whites’ and the blacks’ behaviors were entwined, Myrdal’s (1996) study was an analysis of what he observed involving the social conditions of African America life, without an explanation of the “pathology” that undergirded the social problem that originated in the minds of the people. In addition, because the report was a descriptive, comprehensive analysis about the cultural effects that caused stress, fear, and anxiety in African Americans’ lives, supported with statistical data, without an explanation of why the race-relation and behaviors caused the “pathology”, the “American dilemma” forced the researcher to look elsewhere to determine how to best address the mental, pathological problem rooted in the culture and subculture of Americans to determine the social effects on learning, in general. To accomplish this goal, the literature search became a cross cultural and interdisciplinary study of several professions: psychology, medical science, genetics, social science, cognitive psychology, cognitive science, and neuroscience.

The research in these various professions, outside of education as a field of study, took place in order to address a possible solution for the negative social effect on the learning for some underperforming African American boys. Consequently the literature of the other professions were read on three levels: (1) to identify the negative factors that generated the social
effects on learning within the power structure involving education, economics, and politics to create a pathological state; (2) to observe the socio-pathological factors that existed between the races that affected learning, and (3) to create a suggested blueprint for deconstructing the pathological state internalized by some African American pupils, in general, that were affected by the negative social effects for academic learning that plagued a few African Americans boys in particular. In order to accomplish these outcomes, literature was reviewed in seven other professional organizations dealing with the issues raised in An American Dilemma.

**Before Brown v. Board of Education: The trailblazers**

Although the professional journals before the early 1950’s revealed no immediate response to Myrdal’s perceived dilemma, two African American women, Mamie Phipps Clark and Marian Thompson Wright were already studying the pathology of racism before Myrdal began his comprehensive study in 1939 (Smith, 2002; Crocco, Munro, & Weiler, 1999). Both of their works were chosen for the prototype of the landmark Supreme Court case that outlawed more than five decades of racial segregation (Bergman & Bergman, 1969; Franklin, 2005). For example, in 1936, for a class project in abnormal psychology (Smith, 2002), Mamie Katherine Phipps administered psychological tests to 150 African American school children in the Works Projects Administration’s (WPA) in Washington, DC to determine their perception of their racial identity by simply asking them to identify themselves from three sets of pictures (Clark & Clark, 1939). The results of the experiment revealed that as the children’s ages increased, the racial identification also increased. However, during the experiment some unexpected behavior occurred when a great deal of the African American children said they did not identify with any of the pictures (Clark & Clark, 1939). The five-year old children’s unexpected behavior indicated a racial conflict of ideas that hindered them from accepting “themselves as intrinsic individuals” (Clark & Clark, 1939, p. 597). Thus, Clark and Clark (1939) concluded that racial identity and
the pathology of personality occurred at the age of five. Mamie used the research for a Master’s thesis at Howard University; upon graduation she married Kenneth Clark (Smith, 2002).

Kenneth Clark demonstrated Mamie Phipps’s (1939) Master thesis’ findings before the Supreme Court during the testimony of *Brown v. Board of Education* when he used brown and white dolls for African American children from the North and South to identify them racially (Jones & Pettigrew, 2005). He also asked them which dolls looked like them, after which he asked which was “. . . pretty, nice, and [the one] they would like to play [with]; two thirds of the Black children chose the white doll over the brown doll” (Jones & Pettigrew, 2005, p. 649), even though 90% correctly identified the race of the dolls and themselves correctly. The Supreme Court understood the psychological and negative social effects with implications of the 1896’s *Plessey v. Ferguson* separate but equal law, and overturned it (Jones & Pettigrew, 2005). Kenneth Clark later became known as the man who dismantled the American apartheid system (Jones & Pettigrew, 2005).

Before *Brown v. Board of Education* in the 1950’s, portions of Mamie’s thesis were published. In 1939, it appeared as “Segregation as a Factor in the Racial Identification of Negro Pre-school Children” in the *Journal of Social Psychology* with Kenneth as the lead author. The Clarks also submitted another article to the *Journal of Social Psychology*, with joint authorship for “Skin Color as a Factor in Racial Identification of Negro Pre-school Children” in 1940 (Smith, 2002). The two articles explained what happened to children when they internalized white racism.

For a doctoral dissertation, Mamie Clark merely increased the testing population in New York City to earn a doctorate at Columbia University (Smith, 2002). In 1944, the results from studying New York City’s inner city children were used in her doctoral dissertation and appeared
in the *Archives of Psychology* as “Changes in Primary Mental Abilities with Age” (Smith, 2002). From her research, Mamie clearly understood the pathology of racism and its effect on children’s schooling and learning in the North and South before and after *Brown*. In hindsight, Mamie Phipps’s (1939; Clark & Clark, 1939) research must be recognized as significant for understanding how cultural surroundings helped to shape the personality and the cognitive development of young children. Her husband, Kenneth Clark understood it also and worked the rest of his life trying to eradicate white racism through racial integration in the United States (Jones & Pettigrew, 2005).

Like the Clarks, Marian Thompson Wright’s also understood that separate schools were insidious (Crocco, Munro, & Weiler, 1999). While Wright was a student at Howard University, she became concerned about how the public schools more and more systematically were becoming re-segregated in Newark, NJ. After graduating from Howard, she enrolled in Columbia University’s Teachers College and continued her research interest (Crocco, Munro, & Weiler, 1999). In 1940, Marion published her dissertation entitled *The Education of Negroes in New Jersey* in which she documented that education in the state was inherently unequal. Her study was chosen by the legal team consisting of Thurgood Marshall, Robert Carter, Jack Greenberg, and Constance Baker Motley. They used Wright’s research as their architectural guide for *Brown v. Board of Education* (Crocco, Munro, & Weiler, 1999; Jones & Pettigrew, 2005).

In addition, the American Jewish Congress of New York sponsored the research of Max Deutscher and Isidor Chein (1948). They studied white racism by sending a questionnaire to the members of the American Sociological Society because race relations were listed as its major field of study, in the Division of Personality and Social Psychology of the American
Psychological Association, and the American Ethnological Society (a group of cultural anthropologists) professional groups. They asked two questions: *What is the psychological effect of enforced segregation on the segregated racial and religious groups? What is the psychological effect of enforced segregation on the group, which enforces the segregation?* (Deutscher & Chein, 1948, p. 287). The results of the study were published in the *Journal of Psychology* regarding its effects on forced segregation. They reported that the population represented 25% sociologists, the psychologist 49%, and the anthropologists 26%. The returns from 849 ballots were 517 or 61%. Fifty-five percent (55%) of the respondents made written responses to explain their answers (Deutscher & Chein, 1948). Significantly, 90% of the professionals believed forced segregation was detrimental, while only 2% said it had no effect, with 4% had no opinion (Deutscher & Chein, 1948). Four percent did not answer (Deutscher & Chein, 1948). The respondents (83%) believed that the group that enforced segregation was also affected detrimentally, with 9% had no opinion, 5% did not answer while 4% indicated the enforcers were not affected.

The psychological studies of Deutscher/Chein, Chein, Phipps-Clark, Preston and Kahn, Clark/Clark, Myrdal, and the sociological work of E. Franklin Frazier’s (1969), *The Negro in the United States*, helped the Supreme Court to rule favorably in *Brown v. Board of Education* (West Supreme Court Reporter, 1988). Regrettably, neither of the sociological or psychological organizations accepted the challenge of deconstructing the pathology of racism as Myrdal concluded in *An American Dilemma* for teacher educators. Instead the psychologists began to deconstruct white racism as discussed in the next section.

**A few brave men: The psychologists**

Although race relations were not a high priority in three psychological organizations that Deutscher and Chein studied, there were a few brave individuals like Melville Herskovits, Otto
Klineberg, and Ashley Montagu that worked with individual psychologists to deconstruct white racism in the United States. Since anti-Semitism also existed in the American culture, their interest merged with the African Americans, and collectively various groups began to write and study about racial minorities and race relations (Lewis, 2000; Franklin, 2005). In addition, Myrdal’s *An American Dilemma* was published in 1944 and many of the social scientists that were very active with their professional organizations were also on Myrdal’s staff (Jones & Pettigrew, 2005). In later years both Clark and Frazier became president of their integrated professional societies and continually advocated for better race relations (Jones & Pettigrew, 2005; Lewis, 2000).

After *Brown v. Board of Education*, only a core of individuals tried to educate the American Psychological Association (APA) and the public about the societal dangers of unequal schooling. None was more vocal than Kenneth Clark, Isidor Chein, and Stuart Cook. They published in 1952 “The Effects of Segregation” in the *American Psychologist*. They explained that white children were damaged by the social policies and practices. But, Henry Garret who later became president of the APA and a few other psychologists opposed change, and they testified during the litigation of *Brown* to maintain segregation (Pettigrew, 2004). Thomas Pettigrew (2004) further explained how deeply ingrained racism was in the psyche of some professionals. For example, Supreme Court Justice Robert Jackson’s law clerk, the late Chief Justice William Rehnquist thought, “. . . *Plessy v. Ferguson* [separate but equal] was right and should be reaffirmed” (p. 522). Unfortunately, the discourse about how discrimination, prejudices, and unequal schooling affected white children dropped from the national and psychological associations’ foci even though research showed that 83% of respondents said white children were damaged by racist practices (Fine, 2004). In 1952, Clark, Chein, and Cook
tried to encourage discourse about the effects, but 50 years later to commemorate the victory of Brown, the 1952 article was published again as a reminder of “unfinished business” for the APA. Clark, Chein, and Cook (2004) wrote:

... [White] children who learn the prejudice of our society are also being taught to gain personal status in an unrealistic and non-adaptive way. When comparing themselves to members of the minority group, they are not required to evaluate themselves in terms of the more basic standards of actual personal ability and achievement (p. 496).

In addition, the children also learned how to project their feelings of hostility and aggression when scapegoating against an entire group of people (Clark, Chein, & Cook, 2004). They also developed patterns of guilt feelings and rationalizations when their personal desires and goals were unmet since they perceived themselves superior to other groups (Clark, Chein, & Cook, 2004). The most obscure, harmful residue of white racism and slavery equally encouraged the use of projection, scapegoating, and rationalizations to shield themselves from acknowledging the essential injustice of their unrealistic fears and hatred of minority groups, which most often manifested in employment and housing situations (Clark, Chein, & Cook, 2004). Clark, Chein, and Cook (2004) also maintained that white children learned the American Creed, which included the idealism of equal opportunity since all persons were created equally, and that America was the land of the free with liberty and justice for all. However, when children experienced that some people were denied these ideals, it caused “...conflict, confusion, moral cynicism, and disrespect for authority” (Clark, Chein, & Cook, 2004, p. 496). Black children were also taught the American Creed, along with “being taught the moral, religious and democratic principles of brotherhood of man and the importance of just and fair play...” (Clark, Chein, & Cook, 2004, p. 496). Since the children did not experience these rights and privileges, the contradictions made them psychologically confused. Therefore, they needed to resolve their inner conflict by projecting intensified hostility and hatred toward those teaching and benefiting
from the principles. Clark, Chein, and Cook advocated unsuccessfully for the psychological
duality to cease in the psyches of black and white children.

Even though the sociological or psychological organizations ignored the social effects of
white racism, some of the physicians were equally engaged as discussed in the next section.

“Physicians Heal Thyself”: The medical community

The National Medical Association (NMA), the professional organization of African
American medical doctors, was formed in 1895 in Atlanta, GA because of the racial membership
policies of the American Medical Association (AMA) (Satcher, 1973). The NMA worked on
various medical problems and conditions that arose from the racial pathological conditions that
African Americans endured (Satcher, 1973). The committee’s work and studies were published
in their journal called the Journal of the National Medical Association (JNMA) (Satcher, 1973).
Consequently, the JNMA was the only publication in the review of literature for this study that
gave a continuous, chronological account of African Americans mental and physical health, as
well as their self-destructive lifestyles in response to the hostile environmental and socio-
economic issues of oppression. In contrast, the mainstream American Medical Association
(AMA) was indifference to Myrdal’s (1996) conclusion of his study in 1944 and published as An
American Dilemma. In two volumes, he described how the negative race relations were
pathological for all the citizens in the United States.

Most of the prestigious professional medical journals for the psychiatrists (American
Journal of Psychiatrists) and for the medical doctors (Journal of the Medical Association),
ignored the problem until 1966, when the American Journal of Psychiatrists (AJP) published its
seminal article, “Psychological Aspects of the Civil Rights Movement and the Negro
Professional Man” to address the professional audience’s pathology of racism. At the end of
Drs. Arnold R. Beisser and Hiawatha Harris’s (1966) presentation, they asked for the audience’s
written responses to their paper. The responses were later analyzed and published in the AJP’s along with their article in the seminal issue. The findings of their analysis indicated the effects of white racism on the racially integrated group of psychiatrists. Thereafter, members like Alvin F. Poussaint (1966b), Louis J. West (1996), James P. Comer (1969) explored the subject freely in their research and writings.

For example, in 1969, James P. Comer presented a paper at the American Psychiatrists Association (APA) entitled “White Racism: Its Root, Form, and Function” in response to the Report of the National Advisory Commission on Civil Disorders that studied the riots in several urban cities. Comer (1969) responded to the conclusion of the report that “. . . implicated white racism as the major cause of black and white conflict and violent civil disorder . . . ” (p. 802). However, Comer (1969) noted, “One of the weaknesses of the report was that it failed to demonstrate the psychological roots, forms, and functions of racism and their direct relationship to interracial conflict and violence” (p.802). Therefore, Comer chose to address the omission. Before addressing the psychological issues that caused pathological racism, Comer defined racism in the following manner:

Racism is a low-level defense and adjustment mechanism utilized by groups to deal with psychological and social insecurities similar to the manner in which individuals utilize psychic defenses and adjustment mechanisms to deal with anxiety. In fact, the potential for a racist adjustment is rooted in personal anxiety and insecurity (p. 802).

Comer (1969) then explained that white racism was created out of a social context of religion, politics, geography, and economics that began in Europe during the 16th century and crossed the Atlantic Ocean with the colonial settlers. Because white racism was rooted in the religious fervor of the Protestant Reformation to afford psychological security and to achieve economic profits with social status in the New World, the forms of white racism were crafted into chattel slavery and was “. . . transmitted from generation to generation as a positive social
value similar to patriotism, religion, and good manners” (Comer, 1969, p. 802). Consequently, some individuals accepted white racism as the “norm” for developing social policy in the United States (Yamey & Shaw, 2002).

The slaves’ adjustment to the social policy made it easier for slave masters and their sympathizers to rationalize the existence of slavery (Comer, 1969). The slaves’ survival tactics bred unhealthy psychological, mental states because their adjustments included identifying with the oppressors, as well as emulating and accepting the slave masters’ values and styles of aggression and oppression (Comer, 1969). Out of the psychological adjustments ultimately grew the foundations of a slave culture of inferiority, low self-esteem, and self-concept that were then transmitted from generations to generations (Comer, 1969). Since the black man was docile because of his adjustments, he was “a convenient object” for the slave masters to project their evil, repressed forbidden sexual desires; hence, the sexual aggression became another pathological layer of white racism (Comer, 1969). Also in 1969, the *International Journal of Psychiatry* published four psychiatrists’ articles, two from Harvard University and two from Columbia University, about the pathology of racism. Three articles were critical evaluations of Hugh F. Butts’ views, entitled “White Racism: Its Origins, Institutions, and the “Implications for Professional Practice in Mental Health.” As the Assistant Clinical Professor in Psychiatry at Columbia University, Butts used history and psychology to explain that the origin of racism grew from a psychosocial character that white children learned in order to adapt to laws created in England in 1670 for colonial Virginia to regulate slavery of Africans as an outside group. For 51 years the inside-outside group mentality did not exist. For example, when the first Africans came to Virginia in 1619 before the Mayflower, they were indentured servants (Butts, 1969; Franklin, 2005).
Butts (1969) further explained that in time, based on skin color alone, the colonial character became a “white psychosocial character” that turned into a “white pathogenic character” when the inside groups’ white skin was equated with superiority, purity, and excellence, while the outside groups (Native Americans and Africans) were inferior, evil, and ignorant. The intent of the English law was to regulate the treatment of Africans as slaves in the colonies, not the Native Americans. Therefore, the black skin of the Africans made them members of a permanent color caste intended for slavery (Butts, 1969). Slaves’ adjustments to their color caste were psychologically “maladaptations” that were detrimental to their mental health. Based on these assumptions, Butts said, “I wish to redefine racism as the predication of decisions, policies, and behavior on considerations of race for the purpose of subordinating a racial group and maintaining control over that group” (p. 914). Then, he described some of the racist attributes as being overt and covert, active or passive, conscious or unconscious. As Butts (1969) defined the term “white racism”, he remarked that the behavior manifested in three forms: individual whites versus individual blacks; total white communities versus black communities (institutional racism); and, *de facto* racism (policies and laws that discriminated).

Charles A. Pinderhughes (1969) of Harvard defined racism slightly different. He thought that racism was an appearance-related paranoia, as a subdivision of a larger class of group-related paranoia, all of which were normal responses common to all social groups. When Pinderhughes discussed the primitive neuro-physiological patterns of humans, he explained that medically and psychologically both white and blacks in the United States were often deluded and victimized by white racism, because there were both pro-white and anti-black paranoia. Consequently, both groups needed a healing (Pinderhughes, 1969).
In contrast, Ethel S. Person (1969) of Columbia University refuted the psychoanalysis notation that white racism was pathological in her critique entitled “Racism: Evil or Ill?” for the *International Journal of Psychiatry* (IJP). Person argued that a defined group with a distinct race, a common religion, language, culture, class, or geographical location that harbored some conflicts and unresolved issues was not “pathological.” In that vein, Person (1969) wrote: “Prejudice, national supremacy, manifest destinies, wars, and genocide on behalf of such group distinctions span the centuries and continents and seem universal” (p. 930). Person asserted that it was illogical to categorize the “American psychosocial character” of being racist, as deviant, or a malignant pathogenic force and that the social behavior of white Americans caused the society to be stratified into distinct racial groups. Person justified her argument by explaining that humans had certain insecurities. Therefore, unconsciously they created a way to counteract them or to resolve the inner conflicts. Person further explained that some of the poorest Southern whites were impoverished economically and psychologically; therefore, they derived their “. . . self-esteem from being not black” (Person, 1969, p. 931). The difference gave them a balanced cognitive center. Person justified the behavior in the following manner:

In racism as in all varieties of tribalism, a negative value judgment is linked to a perception of differences, partly to fulfill psychological needs. It is also likely that certain structural aspects of man’s cognitive life reinforce this psychological tendency toward tribalism (p. 931).

Person’s (1969) justification of white racism on a psychosocial level explained why some individuals harbored little or no inner conflict or guilt for projecting hostilities or aggression against the outside group to maintain certain privileges. Person concluded that brotherhood was a powerful moral imperative, but cognitively it was an idealistic concept not readily accepted by all members of society toward outside groups. Person further concluded that white racism was a *social evil* rather than a *social illness*. Therefore, to eradicate white racism “. . . a drastic
intellectual re-orientation and a serious snipping of social bonds” (p. 932) had to take place for a social group to change its morals. The social change would occur, however, when the racists merged their moral concerns with their self-interests (Person, 1969).

Frances Cress Welsing (1991) disagreed with the American Psychiatric Association’s thinking. Welsing’s views about racism and white supremacy were based on her study of anti-Semitism in Germany. She thought the Nazi’s racial views were pathogenic and pathological within the social construct in the United States. To explain her views, she wrote *The Isis (Yssis) Papers: The Keys to the Colors* that consisted of 25 essays. Collectively, they expressed her thinking about racism and white supremacy from 1970 to 1988 as she practiced psychiatry in Washington, DC. Although Welsing (1991) wrote the majority of the essays in 1979 and 1980, in 1973 she defined “black mental health” since the traditional professional organizations had failed to do so. Welsing explained that Black Mental Health was a unit-pattern of behavior common to people of African descent who created a distinct culture in order to survive and sustain life in a hostile environment.

Throughout the essays in *The Isis (Yssis) Papers: The Keys to the Colors* Welsing (1991) used Hitler’s Aryan thinking as a basis for the theory of white supremacy and racism in the United States. Welsing further explained that the foundation of Aryan thinking was based on fear and insecurities of “genetic domination and annihilation throughout the world” (p. 83) by non-white people. She argued that Aryan thinking of white supremacy grew out of a “... psychogenetic motivation for the global, white supremacy system” (p. 93). In explaining the term “psychogenetic motivation”, Welsing theorized, “... white-skinned peoples initially were the mutant albinos of Black people in Africa” (p. 170). Since albinism was a lack of melanin in the skin, people who harbored “this logic, thought, speech, action, emotional response and
perception . . . [to] genetic annihilation by Blacks and other non-white people” (p. 228) needed help in eradicating their fear, rather than calling them immoral, since their psychological reaction was germane to their genetic survival. Therefore, the oppression of African Americans in general and to African American males in particular who sexually transmitted the melanin gene was viewed irrationally as a threat (Welsing, 1991). Consequently, Welsing maintained that white people must be made aware of their irrational fear of skin color, while black people needed to learn that no system of oppression ever maximally developed against those economically and socially oppressed because of the system’s inherently flawed structure. In other words, African Americans had the power within themselves to overcome the systems’ oppression.

Recent research supported Welsing’s (1991) genetic theory, that “white-skinned peoples initially were the mutant albino of Black people in Africa” (p. 170). For example, Joseph Graves, Jr. (2004), an evolutionary biologist, theorized in The Race Myth: Why We Pretend Race Exists in America that a gene mutation occurred roughly 80,000 years ago as humans migrated out of East Africa into Europe. The scientific community of evolutionary biologists like Graves argued that there were no variant species of the Homo genus; therefore, there was no biological diversity. Yet, individuals used their eyes to distinguish one group of people from another by using color descriptors such as white, black, red, and yellow, and called them races. In simplistic terms, Graves (2004) wrote:

We’re the only species of the Homo genus to have survived into modernity – an analogy would be if the only members of Canis to survive were domestic dogs (no more coyotes, jackals, or wolves). Genetically, we’re not even separate breeds. We’re all mutts (p. 16). Consequently, “race” was socially constructed and justified by myths and stereotypes (Graves, 2004). Graves’s genetic assumption drew upon the findings of a DNA study conducted by Craig Venter, the CEO of Celera Genomics. Other scientists confirmed similar conclusions as discussed in the next section.
DNA and zebrafish stories: The scientists

In the same vein, the 2005 empirical findings of an 11-year study about the color variations in the zebrafish confirmed the genetic theories of Bamshad and Olson (2003), Graves (2004), and Wensing (1991) and answered the question: “Does race exist?” Keith C. Cheng (2005) was the program director for the 28-member interdisciplinary research team at Pennsylvania State University College of Medicine that discovered the variant gene that caused the skin color of black and white people to be different. Out of the 3 billion DNA genetic alphabetic codes only four, MATP, ASIP, TYR, and OCA2, were known as the pigmentation genes (Cheng, 2005). The study of the zebrafish also confirmed that “melanin [played] an important role in the protection of DNA from ultraviolet radiation and the enhancement of visual acuity by controlling light scatter” (Cheng, 2005, p. 1782). For years, anthropologists assumed that the people living on or near the equator had dark skin because they needed more melanin for protection from intense sunrays. Balter (2005) wrote in Science “. . . light skin . . . [allowed] more absorption of sunshine and so produces more vitamin D, a trait that . . . favored . . . less sunny European latitudes” (p. 1754).

In addition to confirming an anthropologic assumption, the international team added to the body of genetic knowledge by identifying SLC24A5, as published in the December 16, 2005 issue of Science. In brief, the research team discovered the zebrafish’s pigmentation gene and its human counterpart (Balter, 2005). When the researchers found the one variant gene to cause recessive mutation, they then tested the DNA of four ethnic groups: Japanese, Chinese, African, and northern Europeans. Only the northern Europeans’ DNA had the variant gene (Cheng, 2005). The researchers then tested the DNA of groups that represented a mélange of European ancestry –203 African Americans and 105 Caribbeans (Balter 2005). Neither the Asians (Chinese and Japanese) nor the mélanged group had the variant gene. However, Cheng (2005)
admitted that the various skin tones within people of color were still a mystery, as well as the variations of the “. . . skin, eye, and hair color in Europeans . . .” (p. 1786). Perhaps there were other genes that caused pigmentation within the pigmentation (Cheng et al., 2005). However, the zebrafish empirical study proved that race was a social construct as Bamshad and Olson (2003), Graves (2004), and Welsing (1991) theorized.

**The gate keepers: Some of the social and political scientists**

Before Cornel West wrote *Race Matters* (1994), a collection of eight essays about the oppression of African Americans in the United States and the effects of racism in America in general, he wrote two essays, “Race and Modernity” and “Race and Social Theory. In “Race and Modernity” West (1999) reviewed Alexis de Tocqueville’s *Democracy in America* regarding how a young democratic society’s “. . . unrestrained quest for wealth” (p. 57) dehumanized Africans for establishing capital. Both of the essays were later published in *The Cornel West Reader* (1999). In “Race and Social Theory”, West analyzed more that 43 social scientists’ writings, in an attempt to find one applicable theory to eliminate racism in America. Then, he turned his attention to Western Europe's role in defining the period of modernity, 1871 to 1950, as its political power declined while the United States became a superpower with the help of the African Americans. According to West, their physical appearance was considered ugly, their culture was disdained, and their intellectual capacity was considered inferior. These attitudes became embedded in the psyche of some black and white Americans as well in some of the academic writings in Western Europe with the rise of modern racist views on two continents. Being dissatisfied with the theorists and the Eurocentric suggestions of how to correct “the Negro problem”, West (1999), a democratic socialist, created his own. On the other hand, some social and political scientists tried to maintain white racism, as asserted in the *Bell Curve* written by Herrnstein & Murray (1999), while others like Steve Fraser’s (1995) *The Bell Curve Wars:*
There was no consensus among the social and political scientists to deconstruct white racism (West, 1999). Consequently, it thrived in most of the institutions in the United States (Feagin, 2000). Joe Feagin (1994, 2000), a sociologist, researched and documented well both covert and overt racism in American’s society, without focusing on the social effects on learning among school children. However, other educators began to loosen the grasps of the social and political gatekeepers that kept African Americans from assimilating into American culture with their social theories to justify oppression and white privileges. Some of these educators and their influential research in the deconstruction of white racism were discovered in the literature and documented below as change agents to help eliminate the stress, fear, and anxiety that white racism caused in the African American subculture that often impeded learning

**The change agents: The educators**

The review of literature revealed that the Beverly Tatum (1992), Janet E. Helms (1992), Judith Katz (2003), Joe R. Feagin (2000), David T. Wellman (1993) and Derrick Bells (1992) were the major educators that helped to inform scholars about white racism and its negative effects in society. For example, Tatum (1992) created a “Psychology of Racism” course that had five working assumptions to help college students to discover their racial identity and racial identity development. The course was shared in a *Harvard Educational Review* article entitled “Talking about Race, Learning about Racism: The Application of Racial Identity Development Theory in the Classroom.” Systematically, the class studied Janet E. Helms’s (1992) stages of white racial identity development along with the characteristics of white culture. Both were summarized and presented in separate tables, Table 2-2 for “White Identity Development” and Table 2-3 for “Some Characteristics of White Culture.” Tatum’s class also studied Cross’ et al.
black racial development model found in the “The Stages of Black Identity Development” and was summarized for Table 2-1, “Black Identity Development.” According to Tatum (1997), the theories of Helms’s and Cross’ et al. were used in the course to generate meaningful discourse and in-class interactions between blacks and whites. In addition, Tatum (1992) used Judy H. Katz’s (2003) *White Awareness: Handbook for Anti-racism* along with a variety of activities to guide the learners through self-discovery with journal writings, tape-recorded journals, and assigned readings. Through self-analysis, the learners became empowered with knowledge to deconstruct racism in their lives as well as others (Tatum, 1992; Helms, 1992). Because of the social hierarchy of white dominance and black subordination, the environment shaped the human psyches differently (Tatum, 1992). Unfortunately, no one born and reared in the United States escaped the racial conditioning. However, the degree to which the effects were detrimental to the human psyche depended on the nurturing environment of the home and immediate society that shaped “the black psyche and the white psyche” (Poussaint, 1965; Tatum, 1992).

*The Black Psyche.* Poussaint (1966) explained that some mothers unconsciously taught their children remnants of the plantation system’s culture of being subservient to the racial etiquette of white supremacy. When the child’s immediate social world rewarded only those persons who “... depended upon the goodwill and paternalism of the white man” (Poussaint, 1966, p. 419), the subservient behavior was reinforced. Therefore, subservient or non-assertiveness was taught to ensure survival, a behavior motivated by the mother’s fear (paranoia) (Poussaint, 1966). The white supremacists’ racial etiquette of paternalism of keeping the subordinate group depended upon another with a reward system was also motivated by fear (paranoia) according to Poussaint. Because the fear was circular, the emotion became more of a
challenge for the individual to overcome being subservient because it destroyed the desire for self-reliance and self-confidence (Myrdal, 1994; Poussaint, 1966). To break the circular pathological concomitants of white racism and its effects on the psyche, Tatum (1992) used a five-stage model for Black Racial Development summarized in Table 2-1.

The White Psyche. According to Judith Katz (2003), some children learned to internalize the feelings of superiority by the age of four. Some even had a “... strong preference for the color white and a negative connotation for the color black. The negative connotation ... [was then] transferred from the color black to black people” (p. 16). Consequently, “... the psychological disorder of racism ... [was] deeply embedded in white people from a very early age on both a conscious and unconscious level” (p. 17). Unfortunately, the same feelings were transferred to all people of color depending on the children’s mental, color continuum with one end being labeled white and the opposite end black (Feagin, 2000). On this level, "the sense of whiteness ... [was] often hidden deeply in individual psyches and practices" (Feagin, 2000, p. 128). Because racist traits were acquired over one’s life span, an individual often was not able to identify the racial behaviors, as David T. Wellman (1993) illustrated in five case studies in Portraits of White Racism. Wellman’s The Making and Unmaking of Whiteness was also often used as a textbook in the university for studying white culture (Rasmussen, Klinenberg, Nexica, & Wray, 2001).

In contrast, Joe R Feagin (2000) focused on documenting racism in the book, Racist America. He maintained that “... children ... [were] socialized with racist thinking and behavior in family groups ... , peer groups ... , children’s books and school books” (p. 132), and from various forms of media. Since racism existed in every facet of one’s daily life in America, Feagin labeled the condition systemic with definite effects on the white child. Judith
Katz (2003) agreed. Psychologically, children who learned white-centeredness and white privileges (McIntosh, 1989) in their social world adopted a moral crutch that hindered their emotional and intellectual growth (Katz, 2003; Delany, 1970). Katz (2003) explained, “Psychological superiority . . . left us in a pathological and schizophrenic state” (pp. 17-18) (emphasis added). Therefore she argued that whites must “. . . recognize racism as a white problem and then accept the responsibility for dismantling it” (p. 8). To accomplish this goal, however, one had to learn to recognize white culture and white privileges and create a healthy white identity without the sociopolitical oppression against people of color (Helms, 1992), as described in the Autonomy stage in Table 2-2.

Because the racist, hegemonic tactics were successful, Derrick Bell’s (1992) *Faces at the Bottom of the Well: The Permanence of Racism* mixed fiction and non-fiction to craft legal cases to teach law students how entrenched racial ideas were in the foundation of the culture in the United States. Consequently, Bell declared that racism was permanent; therefore, his case studies were also designed for legal scholars, educators, and social theorists, politicians, policy makers, parents, and general citizens to consider ways for thwarting hegemony power through the legal system. On the other hand, Joe R. Feagin and Melvin P. Sikes (1994) were more optimistic than Derrick Bell (1992) in *Living with Racism: The Black Middle-class Experience*. Their research “. . . reported on concrete black experience with everyday racism” (Feagin & Sikes, 1994, p. 360) from approximately 200 returned questionnaires from African Americans. Feagin & Sikes’ research acknowledged that some respondents shared “[Derrick] Bell’s despair over the permanence of white racism, [but] for the most part they continue to believe in or work for practical solutions to some of the nation’s major race-related problems . . . . (p. 363). Like Feagin & Sikes (1994), Albert Einstein (1971) was more optimistic about eradicating white
racism from the American society than Derrick Bell (1992). Having fled Nazi Germany, Einstein understood the dangers of racial superiority thinking. Although the media gave little attention to his humanitarian efforts, he worked to deconstruct racism (Jerome & Taylor, 2005).

Collectively, through academic discourse, these educators’ research helped to identify and deconstruct white racism, “a so-called taboo topic” (Tatum, 1992). The social oppression caused a great deal of stress, fear, and anxiety in the lives of African Americans that often denied them positive cognitively development and thus hindered their academic performance. An examination of the culture for similar negative effects on learning through the lenses of gender, poverty, class, monocultural curriculum, along with low literacy environment was less elusive than white racism, as a cursory view of gender was discussed in the next section.

**Gender**

In *Raising Cain: Protecting the Emotional Life of Boys*, Kindlon and Thompson’s (2000) research focused in general about the learning environment for boys without reference to any racial minorities. They gave a balance account of how boys’ readiness for classroom tasks in the early elementary school days was not on the same academic level as girls because boys matured more slowly than girls. In most instances, girls’ verbal ability developed quicker (Hyde & Linn, 1988). On the other hand, however, parents and teachers must used caution in nurturing children to fit gender stereotypes (Kindlon and Thompson, 2000).

Kenneth Kidd’s (2004) *Making American Boys* explained how white middle class boys went to summer camps or participated in organized groups and activities to become programmed into society’s stereotypic views of the American male. When some children did not accept the programmed “boyology”, they became victims of homophobia (Katz, 1995; Kidd, 1998; Trites, 1997). Therefore, teachers and parents needed to understand and embrace the continuum of individualized, manifested gender only as a social construct (Katz, 1995; Kidd, 2004). Since
human beings’ lives were often varied and very complex, children needed the guidance of caring adults to help them understand themselves and others in order to be emotionally literate (Kidd, 2004). Although Kidd analyzed traditional white institutions that set the social standards for gender in the United States, African American boys were also judged by the same standards whether they had the opportunity to learn them or not (Dyson, 1993). Like racism, they did not escape from being judged by gender stereotypes (Dyson, 1993; Tatum, 2005). For example, if African American boys did not embrace the tough street life of the inner city or ghetto life, they were equally victims of homophobia (Tatum, 2005; Ward, 1996). Often times the violent tension manifested in the learning environment at school without being addressed because the teachers did not feel comfortable in discussing the issue (Tatum, 2005).

Therefore, in order to distinguish the difference between gender, nurtured programming, and stereotyping, parents and teachers needed to read with the children adolescent’s literature such as Jim Howe’s *The Misfit* (2003) and *Totally Joe* (2005) about how young children’s emotional lives were affected by homophobia (Kidd, 1998). Ideally, each child would be able to explore and develop emotionally without constraints and stress (Kindlon & Thompson, 2000). When students were free from stress and anxiety, they tended to perform well cognitively in academic settings (Kindlon & Thompson, 2000; Weinstein, & Mayer, 1986; Willis, 2006, 2007b). Of course, the human condition often created other social ills to cause stress, fear, or anxiety that hindered a child’s academic performance, such as poverty and class as discussed in the next section, “Poverty and Class.”
Poverty and Class

It was well documented in the literature that poverty and class influenced schooling (Connell, 1994; Harrington, 1973). For example, in Michael Harrington’s (1973) *The Other America: Poverty in the United States*, the description of economically impoverished residents’ quality of life was vivid. Often books like Harrington’s were used as excuses for not teaching kids how to excel academically. On another level, however, Patrick Shannon’s (1998) *Reading Poverty* updated Harrington’s views without being sensational. He explained how the quality of life in the United States was controlled by capitalism driven by a market economy in the information age. Only the extremely literate members of the middle and upper classes benefited from such a competitive environment (Shannon, 1998).

As an anthropological researcher in Africa (Welch, 1964), it was apparent that poverty was not the greatest barrier for becoming literate for some kids (Connell, 1994). Poverty in some of the third world countries in Africa was often worst than the slums and ghettos in the United States; yet, African children learned and some excelled academically for entrance into highly selected institutions of higher learning in Europe and the United States (Welch, 1974; Connell, 1994). High poverty did not have to mean low academic performance. Neither did a high standard of living assure high performance. For example, Ogbu (2003) further proved that material wealth did not necessarily mean students living in comfort with parents having the financial resources to provide educational materials, experiences, and opportunities would automatically excel academically. In *Black American Students in an Affluent Suburb: A Study of Academic Disengagement*, Ogbu found the achievement gap was caused by societal factors like race relations: internalized European Americans’ stereotypes, beliefs and expectations about black people, tracking and negative behavior and attitudes of teachers, counselors, and unfair discipline within the confines of the school culture (Ogbu, 2003). During Ogbu’s study of the
African American affluent community, many of the parents testified that the school was segregated within the walls of an integrated building and that the school district’s political system was against their children’s best interests. The parents often responded in anger without clearly articulating the perceived political actions of the teachers and counselors (Ogbu, 2003). These parents mistakenly left their children’s career advisement in the hands of the counselors without understanding the issues of race and class (Feagin, 2000; Poussaint, 2004; Tatum, 1992).

In contrast, Donna M. Beegle (2003) used her own familial background and life experiences to illustrate generational poverty and the results of a study of 24 ethnically and racially diverse college students “. . . whose families . . . lived in poverty for at least three generations” (p. 11). She documented that even though all were college graduates, poverty was not completely eliminated from their lives. Unlike Payne (2001), Beegle (2003) used lack of financial resources only as the premise for defining poverty. Since Beegle’s familial group earned salaries from menial labor and migrant work, she assumed that since college graduates worked in other occupations, they would no longer live in poverty. Her research results showed, however, that 71% of the respondents stated, “. . . their personal worth was judged by the work their parents did or did not do” (Beegle, 2003, p. 13). Beegle’s study (2003) also paralleled the study of Duncan and Brooks-Gun's (1997) *Consequences of Growing up Poor*. In brief, both studies demonstrated that if a family did not have ample financial resources to purchase adequate housing, food, and health care, there was also a tendency to react to events in their lives rather than setting goals and working toward achieving them (Beegle, 2003; Duncan & Brooks-Gun, 1997). Consequently, educational goals were not given high priority. Therefore, 98% of Beegle’s (2003) respondents “. . . reported that education had little or no meaning in their early lives and simply was not important” (p. 14). These low educational expectations often caused
family members not to take advantage of free educational opportunities to eliminate economic poverty (Duncan & Brooks-Gun, 1997). The examples above explained, in part, that class and culture developed in separate tracts, especially for African Americans because of their racial isolation. Consequently, class and culture were viewed differently as discussed in the next section.

**Class, Culture, and African Americans**

Most European Americans saw all African Americans as descendants of slaves (Glazer, 1966). However, there were five other distinct cultural groups that developed independently to create various social levels within the African American subculture (Glazer, 1966). The descendants of “free African American” cultural groups developed their own social conditions until they were also subjected to racial oppression first by the *Dred Scott Decision* and later by *Plessey v. Ferguson* (Lewis, 2000; Toppin, 1971). The parallel cultural development was recognized by members of the African American community (Toppin, 1971). Edward Franklin Frazier’s (1969) seminal work *The Negro in the United States* described the various groups. The first group was those African Americans that came before the Mayflower. The other four groups of free African Americans were (1) children born of a Native American mother and an African American father, (2) children born of a free African American mother and a European or Indian father, (3) manumitted slaves, and (4) run-away slaves to free territories, states, and countries and their children born thereafter (Glazer, 1966). These groups’ social conditions caused them to create a social class different from the Africans living in bondage (Frazier, 1965). Similarly, slaves that worked in the fields also developed a social stratum different from those that served as house servants and artisans in slave states (Frazier, 1965). Collectively, therefore the social strata and the mentality of the two groups in bondage, along with five groups of “free people” of color constituted a very rich African American culture in music, language, clothing, and life style.
in general. The commonality of subcultures’ identity to the dominant society, however, was solidified first with the Supreme Court’s *Dred Scott v. Sanford* decision in 1857. *Dred Scott* declared all African Americans were not citizens and had no civil rights in the United States (Frazier, 1969; Lewis, 1993) until after the *Constitution of the United States* was amended and the passage of the first *Civil Rights Act* during the Reconstruction era after the Civil War (Bergman & Bergman, 1969).

For example, New Orleans, LA was a typical city in the United States where the five cultures of “free people of color” and the two classes of the slave descendants developed to afford a very rich African American subculture (Franklin & Moss, 2000). Homer C. Plessy, a “free person of color” that had a white-skin completion, attempted to ride in the “white” railroad car in New Orleans as a protest against the Louisiana Law of 1890 (Bergman & Bergman, 1969). Since he was known to be biracial, he was arrested and convicted as the other “free people of color” predicted. Financed by a group of free persons of color, Plessy sued the city in the name of the mayor (Ferguson) and lost his case (Bergman & Bergman, 1969). After losing on Appeals, Homer Plessy also was defeated before the U.S. Supreme Court in *Plessy v. Ferguson* in 1896 (Franklin & Moss, 2000). Consequently, the Supreme Court viewed all people of African descendant as “the other” and confirmed the “separate but equal” doctrine until 1954 when *Brown v. Board of Education* overturned *Plessy* (Lewis, 2000). With *Brown* as a foundation, the *Civil Rights Acts* of 1964 and 1965 were passed to grant full citizenship to African Americans, after they were denied social and political equality for centuries (Franklin, 2005; Lewis, 2003).

However, religion, the church, folk tradition, and the “African family structure” were common to the seven African American cultural groups until the evolution of a large, black middle class, according to Frazier’s (1962) *Black Bourgeoisie: The Rise of a New Middle Class*
in the United States. Even though the church was the traditional stabilizing force for all of the cultural groups in the cities and the rural areas, the new societal structures such as mutual aid societies, sororities, and fraternal organizations began to serve the needs of the cultural groups in urban areas. Consequently the emerging black middle class withdrew its respect for folk values (Frazier (1962). Frazier noted that the new “...class structure slowly emerged ...based upon social distinctions such as education and conventional behavior, rather than upon occupation and income” (p. 23) like the dominate culture. However, as the black middle class became a synthesized cultural group, more emphasis and time were spent on frivolous social activities in sororities and fraternal groups while rejecting the folk values of the Negro masses (Frazier (1962).

When W. E. B. Du Bois (1978) attempted to motivate the Sigma Pi Phi fraternity, a group of 400 African American professionals, to increase their ranks because the federal government was expanding the white middle class and had decided not to do the same for the African Americans, the group did not respond (Lewis, 2000). Du Bois identified the Boulé (Lewis, 2000 p. 537), as being the Talented Tenth, but they did not accept his proposal to train members of the lower classes for economic integration. Their negative reactions to Du Bois’s idea confirmed the earlier thinking of E. Franklin Frazier’s (1962). However, Cornel West (1999b) argued that Du Bois did not understand the thinking of the masses, because they viewed his idea was unrealistic and threatening to their economic survival. In contrast, Ken Auletta (1999) studied the white and black underclass and identified them as “the derelict, drunk, addict, ... hard-core unemployed, long-term welfare recipients, ex-convicts, ex-addicts, [and] delinquent youths” (pp. 13, 14). Such individuals existed also in the segregated African American communities. Thus, Auletta (1999) grouped individuals with this kind of behavior into four categories:
. . . 1) the passive poor, usually those trapped on welfare; 2) the hostile poor, usually street criminals who terrorize most cities and who are often substance abusers; 3) the hustlers, who rarely commit violent crimes but who, like street criminals, may not be poor because they earn their livelihood off the books, [and] 4) the traumatized, the drunks, drifters, depressed, often homeless miscreants who roam or collapse on city streets (p. 17).

In some all black towns and hamlets the upper-, middle-, and lower-classes existed in harmony with mutual aid societies that helped those who were in dire economic straits immediately after the Civil War and emancipation (Franklin, 2005). In more modern times, however, individuals like John Harold Johnson (1989) understood the racial malevolence of a white banker that refused to loan him money to begin publishing *The Negro Digest Magazine* and learned how to circumvent racial discrimination in order to succeed.

In his autobiography, *Succeeding against the Odds*, Johnson and Bennett (1989) told how a banker encouraged him to borrow some money for a vacation when he refused his business plan. However, being born in 1918 and growing up during the nadir of negative race relations in the United States, Johnson understood the white loan officer’s low expectations of him and the business plan. Therefore, Johnson used the option opened to him and borrowed the $500 for a “vacation” with his mother as a co-signer and her furniture as collateral. With the money, Johnson created a publishing empire that ultimately included *The Black World*, *Ebony Magazine*, *Jet Magazine*, and the JP Publishing Company for non-fiction books, as well as a line of cosmetics, Fashion Fair, for black women. In 2005, he donated a million dollars to Howard University’s School of Journalism that was named in his honor.

Others studied class, culture, and African Americans in different circumstances like Alfred Tatum’s (2005) *Teaching Reading to Black Adolescent Males: Closing the Achievement Gap*. Tatum explained a segment of the African American culture that caused black boys to live in turmoil trying to survive and become literate. In contrast, Michael Eric Dyson’s (2005) wrote extensively about the street culture in (1) *Is Bill Cosby’s Right? Or Has the Black Middle Class*
“Lost Its Mind,” and (2) *Come Hell or High Water: Hurricane Katrina and Natural, Racial, and Economic Disasters* (3) *Reflecting Black: African American Cultural Criticism and Sex, Race, and Class*. Tatum and Dyson’s writings discussed the complexities of African American culture and its issues regarding the upper-middle-lower classes’ and underclass’ values and behaviors in an honest fashion that often defied racial stereotypes.

Stress and strife often manifested throughout the cultural divisions in the African American cultural communities (Dyson, 2006). Both intra- and inter-cultural conflicts and tension were negative, social effects on African American boys’ academic performance (Dyson, 2006). Nevertheless, African American children needed to see their lived experiences in print so that their social world would enter into the academic classroom (Dyson, 1993), rather being exposed to literature about the dominant culture in a monocultural curriculum that often confirmed their oppression as discussed in the next section.

**Monocultural Curriculum**

When Bloom (1994), Hirsch, Jr. (1988), and Stotsky (1999) advocated the literary canon of the Western World, they preferred literature written by Anglo-Saxons and their descendants who wrote about white culture (Helms, 1992). In other words, Adler (1994), Bloom (1994), Hirsch, Jr. (1988) believed there should be a monocultural curriculum for a national literacy without regards for non-Western people. For example, Derald Wing Sue (1992) discussed the psychological effects of monoculturalism as a Chinese American going to school in Portland, OR at a predominately white school. She was taunted because of her physical appearance, called an alien even though she was born in the United States, and was judged by Asian American stereotypes. Reading literature that reinforced such views were harmful to her emotionally (Sue, 1992).
In contrast, other educators like Banks (1998, 1999), Darling-Hammond (1985), and Ladson-Billings (2000) believed in diversity in the classroom to promote an egalitarian public school system. Of these educators, Banks (1998, 1999) advocated for and advanced the need for a multicultural curriculum, while Cai (2002) and Sims-Bishop (1997) maintained that when literature reflected a point-of-view that children related, it tended to heighten their interest and enthusiasm for literacy learning. Therefore, multicultural literature gave children a broad view of the world (Cai, 2002). Similarly, children that grew up in a low literacy environment, regardless of their race, ethnicity, class, culture, if they experienced stress, fear, hopelessness, or anxiety, in the environment, the condition had an adverse learning effect on their schooling (Heath, 1983) common also to a low literacy environment, as discussed in the next section.

**Low Literacy Environment**

To some degree, the socioeconomic conditions that caused low literacy in the home, school, and community were undergirded with very complex socio-economic issues. Dyson (2005) wrote, ‘... anti-intellectualism ... [was] endemic to the [broader]culture” (p. 8). In the United States; therefore, collectively all of these factors influenced low literacy environment for underperforming African American boys in academic settings, including racism. In an attempt to address some of these concerns, teacher educators like Willis (1995) advocated “... school literacy to move beyond its ‘neutral’ conception of culture; educators at all levels must acknowledge the role and importance of more than one culture, in defining school literacy” (p. 47). Liza Delpit (1995) agreed with Willis (1998) in that African American children’s language should be used to teach them how to read and write Standard English by comparing and translating their dialect into Standard English (Delpit, 1995).

According to Paley (1979), teaching literacy to racial minorities from a low-literacy environment in a predominately Eurocentric classroom presented another challenge. Paley’s
(1979) shared experiences revealed how some young pupils acted and reacted toward racial ideas in the society and other children from low literacy environments. Since Paley (1979) was opened to other cultural ideas, viewpoints, and social conditions, she was successful in solving issues regarding racial diversity. On another level, Paley (1979) was successful because she conducted her classroom in an atmosphere of democracy advocated by Wolk (2002) and Ladson-Billings (1995). In contrast, Purcell-Gates (1995) research revealed that pupils from some communities where oral communication was highly valued by their parents, printed materials were not (McGill-Franzen, Lanford, & Adams, 2003). Therefore, when these pupils from a low literacy environment entered Eurocentric schools, their parents had not socialized them to value reading (Purcell-Gates, 1995; McGill-Franzen, Lanford, & Adams, 2003). Thus, teachers often had to help the pupils to observe environmental print in their neighborhoods in order to motivate them to understand how printed ideas were used and to appreciate how ideas were communicated with the letters of the alphabets (Dyson, 1993). On the other hand since they valued oral language, some teachers used poetry, songs, and choral reading to motivate them to read print (Strickland, 1969). The more successful teachers of language arts, however, read orally to the class positive print about other African Americans and also incorporated the ideas into their instructional plans, along with reading quality children’s literature about African Americans socio-historical background and quest for literacy (Ladson-Billings, 1995; Sims-Bishop, 1997). Independent readings about the oppositional behaviors, laws, and techniques that were a part of the African culture and history also often motivated the pupils to read and appreciate multicultural literature (Cai, 2002; Sims-Bishop, 1997. Early emergent readers also enjoyed reading picture books about positive African American life, art, and achievement (Cai, 2002; Sims-Bishop, 1997).
Unaware teachers and other pupils often viewed pupils from low literacy environments as possessing a low IQ. If a pupil became aware of such generalization, it could affect the child’s self-esteem and could create a dislike for school, a common behavior for children living in a low literacy environment (Dyson, 2005). In fact, school often was considered a stressful place to avoid as much as possible, even by some parents. Generally, families with these traits, however, experienced a plethora of other social problems other than just a low literacy environment, especially if there was a culture of oppression and poverty that also contributed to the low literacy environment (Auletta, 1999).

Any of the conditions explained in the discussion of the nine cultural lenses that caused stress, fear, and/or anxiety contributed to negative social effects of the underperforming African American boys’ learning prior to the study, since their cultural environment impacted their learning, thinking, and worldview. These cultural lenses were briefly summarized in the “Summary: Social Effects on Learning.”

**Summary: Social Effects on Learning**

The review of literature emphasizing the negative, external events, conditions, attitudes, traditions, and laws that affected learning was a very broad topic (Sternberg, 2000; Vygotsky, 1978; Willis, 2006). However, the topic afforded a comprehensive, historical, and cultural exploration of research to identify the characteristics of the social effects on learning in the culture (Ogbu, 1978; Ogbu & Stern, 2001). Since negative social effects caused stress, fear, and/or anxiety, they inhibited learning, according to Judy Willis (2006), “a board certified neurologist that became a middle school teacher” (Hipsky, 2007). Consequently, in order to identity the social effects, past and present, that might have played a role in the schooling of some African American boys that were identified by their language arts classroom teacher as “underperformers” for the ethnographic case study, the review of the literature included research
about Afrocentric and Eurocentric cultural traits in society (Allen, 1989; Feagin & Sikes, 1994; Sleeter & Grant, 1994). In that vein, the review of the literature consisted of the following eight (8) subtopics.

The first subtopic, “A socio-historical Perspective: African Americans’ Quest for Literacy”, drew heavily upon W. E. B. Du Bois’s (1975) book, Black Reconstruction in America: an Essay toward a History of the Part Which Black Folks, in order to explain the history and role of African American males in the development of the public school system in Florida for all of its citizens. The three African American architects of the public school system were Josiah Thomas Walls, H. C. Harmon, and Jonathan C. Gibbs, the first Superintendent of Public Instruction for Florida. Using the nomenclature, “the talented tenth”, Du Bois’s discussion of Walls, Harmon, and Gibbs’s quest for literacy illustrated how some African Americans attempted to create a democratic public school system during the Reconstruction of the South after the Civil War.

The second subtopic was “General Attitude toward African American Males.” Social hostility and physical violence against African Americans, after the Reconstruction era ended, became the norm (Franklin & Moss, 2000). During that period, the Black Code Laws were created to reduce African Americans to second-class citizenship. However, a few individuals like W. E. B. Du Bois, Booker T. Washington, Joel Springarn, and Carter G. Woodson continued the legacy and quest for literacy even though the general attitude toward Africa American males were very hostile as discussed in the second subtopic, “General Attitudes to African American Males.”

The third subtopic was “Refusal to Learn: ‘I Won’t Learn from You’”, a saying borrowed from Herbert Kohl (1991). The literature revealed how some African American boys coped in
hostile learning environments where teachers’ attitudes supported white supremacy as documented in *Bad Boys: Public Schools in the Making of Black Masculinity* (Ferguson, 2003) and *Disability Democracy: Reconstructing (Special) Education for Postmodernity* (Skrtic, 1995). In this regard, the research that supported the social policy that oppressed African Americans in the schooling process was B. F. Skinner’s operant conditioning along with Jean Piaget’s stages of human development, as explained in *Disability Democracy* (Skrtic, 1995). Therefore, if pupils did not perform according to prescribed classroom behavioral objectives by a certain age they were labeled cognitively deficient and put in special education classes (Ladson-Billlings, 2000; McLaren, 2003; Tatum, 2005).

The fourth subtopic was “White Racism: The Struggle for Its Deconstruction.” Although the politicians granted African Americans freedom, the debate lingered on through the professional organizations to deconstruct white racism. Since the African American medical doctors became organized in 1895 during Reconstruction, it was the oldest organization that studied and published in the *Journal of the National Medical Association* (JNMA) the social effects of white racism on black patients. In this effort the psychiatrists, Alvin Poussaint and James Comer, made the greatest impact to help children cope with their cultural environment and stress inflicted upon them from racism. The geneticists’ findings from studying DNA and the zebrafish (Cheng, et al., 2005), however, gave empirical evidence to answer Bamshad and Olson’s (2003) question in their *Scientific American* article “Does Race Exist?’ in humans. In fact, Cheng’s et al. (2005) study also confirmed the theories of Graves (2004), the biological geneticist, and Welsing (1991), the psychiatrist, that “race” was a social construct.

Nevertheless, the review of the literature for this subtopic, posed three major challenges. First, it was discovered that Karl Gunner Myrdal conducted in 1944 the first sociological study
of African Americans’ social conditions in the South after the Civil War. Myrdal’s (1996) two volumes, *An American Dilemma*, documented how oppressive and stressful African Americans’ life was in the United States. As an economist, Myrdal did not explain “the pathology” that caused the behavior of black and white citizens. He merely described how dreadful race relations were for racial minorities, “the others”, because their treatment was not analogous to the “American Creed” in the United States in general. Second, 50 years later in 1994 in *Living with Racism: The Black Middle-class Experience*, Joe Feagin (1994) argued that there was not”. . . a single in-depth article (sic) or book on the role of white racism in creating the foundation for current racial conflict,” (p. 361) from “. . . the mass media and the mainstream intellectual literature . . . ” (p. 361). Nevertheless, Myrdal’s research revealed that white racism generated a subculture based on a hierarchical relationship that defined the social status of all African Americans.

Finally, *American in Black and White: One Nation Indivisible* (Thernstorm & Thernstorm, 2003) cited Karl Gunnar Myrdal’s (1996) research with an example of “the pathology” that existed between a Southern white woman and her domestic, African American maid, without explaining why the negative, symbiotic race relations existed throughout the American culture including the north, as Myrdal stated in the conclusion. In was implied in *An American Dilemma* that the white/black social problem originated in the mind of the people as explained in "It's All in the Mind: The Pathological Problem.” Through scientific, empirical studies (Bamshad & Olson, 2003; Cheng, et al., 2005) gave credence to Myrdal’s findings in 1944 that “race” was indeed a social construct to justify a hierarchical system that granted privileges based on skin color (Comer & Poussaint, 1992). Consequently, the researcher had to review literature
outside of the field of education to determine the nature of the pathology to determine the social effects on learning.

The fifth subtopic was “Gender.” Kenneth Kidd’s (2004) *Making American Boys* explained how society used structured organizations to socialize gender traits and roles. Pupils that did not conform, however, suffered taunts from the other children in these group settings. Taunting and bullying, sometimes instigated by homophobia, proved to be stressful and emotionally traumatizing to some victims. African Americans boys experienced the same hostilities (Dyson, 1993). In contrast, Kindlon and Thompson (2000) in *Raising Cain: Protecting the Emotional Life of Boys* explained that since boys matured later than girls their nurturing and learning environments reflected major differences.

The sixth subtopic was “Poverty and Class.” Social deprivation because of poverty and class was aptly explained in *Understanding Poverty* (2002) through Ruby Payne’s lenses. There were many causes for poverty. Young boys reared in generational poverty, however, often grew up faster, and went to work to help to support their families. As Payne explained often times one’s parents determined the social class of an individual. In contrast, class embraced more than financial resources because manners, values, education, and character also helped to determine class.

The seventh subtopic was “Class, Culture, and African Americans.” Because of their racial isolation, African Americans developed a unique, creative subculture with five distinct intercultural traits, since all African Americans were not descendents from slaves. The life style of African Americans after the large black middle class emerged was explained in Michael Eric Dyson’s writings, such as *Reflecting Black: African American Cultural Criticism* (1993); *Is Bill Right? Or Has the Black Middle Class Lost its Mind?* (2005); *Come Hell or High Water*:
Hurricane Katrina and Natural, Racial, and Economic Disasters (2006). His explanations included the destructive “street life” of alcoholism, drug addiction, poor eating habits, and diet of mothers that affected their unborn. Dyson claimed that the hip-hop music merely reflected these postmodern conditions. Consequently, the economic status of the parents and their moral values shaped the African American boys’ outlook about literacy according to the way they were socialized.

The eighth subtopic was “Monocultural Curriculum.” A curriculum of this kind narrowed the social perspective of the African American boy (Tatum, 2005). Since the United States was multicultural, these pupils would be better served with a multicultural curriculum (Cai, 2002; Lowery, 2000). The reading material about their lived experiences would serve as background knowledge to teach other reading comprehension skills for cognitive development (Hirsch, Jr., 2006).

The ninth subtopic was “Low Literacy Environment.” The African American boys’ culture placed high values on the oral tradition (Heath 1983). If the home lacked printed material or the adults in the boys’ environment rarely read, then they had little use for printed material or reading, in general (McGill-Franzen, Lanford, & Adams, 2003). Therefore, a conscious effort to engage in literacy by introducing their lived experiences to encourage an interest in reading was necessary (Tatum, 2005).

To overcome these external, social problems that thwarted learning, a few researchers investigated the cognitive processes that successful African Americans used to achieve academically, as discussed in the next section.

**Cognitive Processes for Learning**

In spite of the negative, social effects in the lives of African Americans that caused stress, fear, and anxiety that thwarted learning for African Americans, the African American boys
tended to perform less well than their female counterpart on high-stakes test that determined educational outcomes. In that vein, the section “Cognitive Processes for Learning” discussed four major subtopics: (1) “Two Psychiatrists’ Suggestions and Views, (2) “Multicultural Literature Usage”, (3) “Critical Thinking”, and (4) African American Boys, “What’s Your Major Academic Problem?”

**Two Psychiatrists’ Suggestions and Views about Learning**

James Comer and Alvin Pouissant (1992), leading African American psychiatrists, gave suggestions and remedies regarding African American children’s academic achievement problems in *Raising Black Children: Two Leading Psychiatrists Confront the Educational, Social, and Emotional Problems Facing Black Children*. The book was about how children matured and how growth affected their emotional, psychological, and social development (Comer & Poussaint, 1992). Their first suggestion was to parents. They said, “. . . raise strong, well-educated, and computer-literate black children. There [was] . . . no longer a need for docility; therefore, white racism should be replaced with an attitude of black pride, self-confidence, and appropriate assertiveness” (p. 12). In other words, white racism would no longer exist as the foundation of the social order if parents stopped teaching their children to honor it (Comer & Poussaint, 1992). They also told parents that their children were allowed to spend too much time on sports, music, and dance. Therefore, they were not prepared to make the transition from the industrial to the information age (Comer & Poussaint, 1992). They said that black boys were not taught that becoming a professional athlete was not a realistic career goal. Comer and Poussaint further explained that only about one percent of the four year college athletes became professionals. In addition, athletic careers rarely lasted more than two years (Comer & Poussaint, 1992). The doctors admonished parents, “Too many youngsters spend too little time
in academic areas” (p. 12). Furthermore, they said that parents needed to teach their children to achieve in both academics and sports.

Second, Comer and Poussaint (1992) discussed their views regarding the social effects on African American boys’ learning. The doctors argued that black males were thought to be threatening to society; therefore, they received more rejection. They were deliberately denied a chance for an education, so they supported their families as manual laborers in agricultural and industrial jobs until the 1960’s when the economy changed. Of course, the more educated men, however, were often under employed (Comer & Poussaint, 1992).

The doctors argued that there were social effects on African American children’s learning that were outside of their immediate control. For example, Comer and Poussaint (1992) maintained that there was not a black psychology or white psychology, but “. . . psychological practices in the United States . . . [that were] white-dominated and . . . [were] often culturally biased and racist (p. 15). In that vein, they stated, “Many psychological tests standardized on white people . . . [were] inappropriately applied to blacks, causing them to appear less intelligent or deficient.” (p. 15). They further maintained that the mental capabilities of individuals were not based on skin color. However, “What . . . [appeared] as differences . . . [were] the results of experience and training” (p. 15). Therefore, what a white child learned a black one would also, but “deliberate segregation and inadequate educational and economic opportunities implied inferior ability when it was not stated directly” (Comer & Poussaint, 1992, p. 232). The doctors further explained that in a climate of overt and covert racism, stereotypes grew that blacks and other minorities were mentally inferior (Comer & Poussaint, 1992). Comer and Poussaint also exclaimed, “These factors –past and present- . . . [affected] black [children’s] performance on achievement and intelligence tests” (p. 232).
In spite of the negative social effects on learning, Comer and Poussaint (1992) argued that lack of learning experiences and training caused African American boys to underperform academically. They both acknowledged that poverty influenced families’ lives, but if children were reared in an “. . . atmosphere of love and security, even in the poorest of homes [they would] be prepared to face the challenges . . .” (p. 12) of society.

As a faculty member at Yale University in child psychiatry, James Comer’s approach to cognitive processes for learning was through the Comer School Development Program (Noblit, Malloy, & Malloy, 2001). He believed that a responsible, supporting adult in the life of children made a difference in their academic performance. Since most African American children did not have the personal, social, and moral development skills they needed to succeed academically, they must be taught cognitive development skills and processes at home and at school (Comer, Joyner, & Ben-Avie, 2004). Therefore, he addressed cognitive issues through the school reform approach with the Comer School Development Program. The Program was created four decades ago to remedy urban school reform (Noblit, Malloy, & Malloy, 2001).

**Multicultural Literature Usage**

Using multicultural literature that reflected the lives of underperforming African American boys provided background knowledge for teaching cognitive processes and reading comprehension (Cai, 2002; Hirsch, Jr., 2006; Sims-Bishop, 1992). Eric Donald Hirsch, Jr. (2006) explained that when pupils had the background knowledge of the text, they stored the information readily in their short-term memory. Once the information was stored there, an experience learner could explain how to manipulate the stored information using the cognitive activities listed in Table 2-4 found in the List of Tables to enhance reading comprehension, which in turn aided cognitive processes (Weinstein, Woodruff, & Await, 2004). Moreover, in *Multicultural Literature for Children and Young Adults: Reflection on Critical Issues*, Cai (2002)
expressed that the goals and usage of multicultural literature were positive social effects on learning and would be conducive for developing cognitive processes for learning how to solve problems.

In addition, to counteract the negative psychological effects of white racism, classism, poverty, and homophobia, children needed to read “... books depicting experiences of non-mainstream cultures” (Cai, 2002, p. 19). According to Cai (2002), “The inclusion of such books in the curriculum boost[ed] ... children’s self-esteem and enable[d] them to experience successes in school” (p. 19). Using multicultural literature as a medium of instruction to interact orally with underperforming African American boys provided an immediate feedback for practicing reading comprehension skills and reader response. In addition, multicultural literature provided on the “printed page” the children’s lived experience, which was then used as background knowledge for learning additional information processing skills analogous to reading comprehension (Hirsch, Jr., 2006). However, the reader response allowed the experienced reader to assume how the information processing occurred during the act of reading to develop the young reader’s mind as discussed in the next section.

**Cognitive-developmental dimension of reader response**

In “Benefits of Children’s Literature” Violet Harris (1990) maintained that children gained cognitively from reading children’s literature. However, she did not give teachers specific instructions or suggestions about how to achieve the desired cognitive outcomes for academic success. Similarly, Alfred Tatum (2006) in “Engaging African American Males in reading” argued that the culturally relevant approach to teaching literacy aided African American boys’ intellectual growth. Tatum emphasized teaching various reading skills, but he failed to
explain how and why the intellectual growth occurred. However, Harris and Tatum advocated using multicultural literature with African American pupils for cognitive development.

Like Harris and Tatum, Mingshui Cai (2002) encouraged using multicultural literature, but he said it must be culturally relevant to the learner’s lived experiences for teaching cognitive development skills. Cai maintained that when pupils saw their environment in print, it was easier to acquire the background knowledge for comprehending and recalling the information. Therefore, a background knowledge about the printed text must be established first to engage in cognitive developmental instruction before teaching higher-order thought patterns for reading comprehension and analytical reasoning skills (Cai, 2002; Sternberg, 2000). These skills tended to enhance cognitive growth and development (Cai, 2002).

Unlike Harris (1990) and Tatum (2006), Mingshui Cai (2002), *In Multicultural Literature for Children and Young Adults: Reflection on Critical Issues*, theorized how reader response suited the assessments of the pupil’s thoughts about the printed text, and how they recalled the information. The analysis of the oral and/or written response helped the experienced reader or teacher to determine how and/or why the pupil responded a certain way. Collaborating with the pupils “. . . in the social constructivist approach to learning” (Lamme, 1995, p. 221), pupils learned cognitive processing skills using activities in Table 2-4 in the List of Tables. Using multicultural literature in this manner, Cai called the approach cognitive-developmental dimension of reader response.

Children with parents that read to them every night before going to sleep tended to develop the mental sequence of events in a story for discussing the readings aesthetically (Vandergrift, 1990). In addition, children that read a great deal on their own got more practice through trial and error to develop cognitive strategies (Martin, 2005). However, children in grades K-3 from a
low-literacy environment required a great deal of neuro-developmental activities’ stimulation from reading to aid their thinking processes, in spite of the school’s curriculum constraints and/or negative social effects on their learning (Levine, 2002; Littky & Grabell, 2004). Therefore teachers that used “talk-alouds” as a window to the mind (Hume & Weinstein, 1994) got a glimpse of the mental process from the reader response.

Mel Levin’s (2002) book, A Mind at a Time, explained how teachers’ conscious efforts to engage in neuro-developmental activities with “talk-alouds” and reader response to literature were engaged in “neuro-developmental pluralism” (p. 335). Thus, the teaching approach for cognitive strategies required more than the four seconds commonly allowed for pupils to collect their thoughts for an oral response in a normal classroom before calling on someone else. Children from low literacy environments were especially cited as needing more than four seconds to formulate thoughts in a new way when learning the different patterns of thought (Levine, 2002). The patterns of thinking, as information processing, for academic success, were discussed more in detail in the next section.

Information processing using short-and long-term memories

The patterns of thought for generating the reader response from reading the culturally relevant multicultural literature were determined by the way the pupil processed the information from short-and –long term memories (Wittrock, 1986). While Eric Jensen (2005) explained the scientific functions of the brain in Teaching with the Brain in Mind, Claire Weinstein (1988) and her associates (Weinstein, Woodruff, & Await, 2004) identified the cognitive strategies commonly used for information processing listed in Table 2-4 in the List of Tables. Likewise, John Bruer (1993), Michael Presley (1993; Pressely & Woloshyn, 1995), and Gerald Duffy (2003) shared their educational experiences for teaching cognitive strategies to elementary school children. Therefore, it was well documented in the literature how cognitive strategies
consisted of the various ways that pupils processed new ideas and experiences (Weinstein, 2003). The more academically successful pupils, however, learned how to incorporate at least eight of the 16 cognitive activities in Table 2-4 in their repertoire for studying (Weinstein, Woodruff, & Await, 2004).

During the learning process, information was stored in the memory system after it was scanned and filtered through “. . . the sensory intakes areas of the brain” (Willis, 2006; Wittrock, 1986). Then, the stored memory became prior knowledge for applying new experiences to solve problems, complete tasks, and/or evaluate ideas (Weinstein, Woodruff, & Await, 2004). Consequently, the capability to store information in the short term and longer term memories were necessary for learning (Weinstein, Woodruff, & Await, 2004). For example, as the African American boy read the multicultural literature, he stored information in the short term memory first to recall the names of the characters, setting, sequence of events, etc. of the story. Activities in Table 2-4 with the active rehearsal strategies helped the reader to remember the basic parts of the plot (Weinstein & Mayer, 1986). However, pupils from a low reading environment probably needed help in engaging in the fifth active rehearsal activity because it was somewhat more complex than activities 1-4 (Weinstein, Woodruff, & Await, 2005). Since the fifth activity involved linking facts, events, and persons with a theme or common trait to recall details using notes of reading/writing/saying details more than once to memorize, the teacher or an experienced reader would model how to do the activity (Weinstein, Woodruff, & Await, 2004). Pupils that read stories a great deal on their own, more than likely from practice, learned through trial-and-error how to retain basic information for comprehending a story (Cai, 2002; Martin 2005). Although these five active rehearsal activities stored information temporarily in the brain while reading, the skill to perform the tasks accurately was vital for processing the multicultural
literature using the next cognitive levels’ activities, the organizational and elaboration strategies (Weinstein, Woodruff, & Await, 2004) listed in Table 2-4 to generate reader response from the multicultural literature.

For the longer term memories’ activities listed in Table 2-4 in the List of Tables, the same short term memories’ approach was used for generating reader responses that were more complex (Weinstein, Woodruff, & Await, 2004). Information processing using the organizational and elaboration strategies’ activities, however, required the teacher to ask higher-order thinking questions (Bloom, 1956; Levin, 2002b). Through practice, the pupil learned when to choose the appropriated information processing activity (metacognition) for giving a complex reader response (Jausovee, 1996).

Norbett Jausovee (1999) and Judy Willis (2006) explained, without discussing culture, the role that social effects played on learning. For example, in “Metacognition”, Jausovee wrote, “All higher psychological functions (e.g. perception, voluntary attention, intentional memory) encompassed social origins” (p. 206). Drawing upon Lev Vygotsky’s research, Jausovee further wrote, “Thus, knowledge and cognitive processes [were] socially transmitted” (p. 206). Likewise, Judy Willis used her background in neuroscience to explain the impact of negative social effects on learning in Research-based Strategies to Ignite Student Learning: Insights from a Neurologist and Classroom Teacher. Willis explained that when pupils felt helpless, threatened, stressed, and/or anxious, the affective filter did not respond “. . . to processing, learning, and storing new information” (p. 106). She further said that when the affective filter was over stimulated “. . . new information . . . [did] not pass through the amygdala to reach the information processing centers of the brain” (p. 106), because the amygdala’s affective filter did not allow “. . . access to the memory circuits” (p. 106) in the brain’s temporal lobe. Therefore,
any of the nine (9) lenses through which the negative aspects of the culture were identified in the
discussion of the topic “Social Effects on Learning” affected the amygdala’s affective filter and
thwarted learning (Willis, 2006).

In that vein, Mingshui Cai’s (2002) five components of the cognitive–developmental
dimension presented the foundation for multicultural literature to achieve the goal of
empowerment. He theorized that if pupils learned how to process information well they would
be in a better position to understand and solve problems to overcome the pathological obstacles
created by the dominant culture and the dominated cultures as well (Cai, 2002). Since
information possessing assisted the pupils’ cognitive development in the areas of reading
comprehension and interpretative analyses of the texts, multicultural literature also provided
cross-cultural skills for reading all literature multiculturally (Cai, 2002). Putting culture aside,
Weinstein (2003) noted that if pupils developed the ability to execute strategies to process
information aptly, their level of comprehension and interpretation of literature would increase for
other academic subjects. However, for African American pupils to overcome a barrage of
negative social effects on learning, the reading of multicultural literature vicariously provided
positive background knowledge to practice information processing activities for developing
cognitive strategies for learning in general, as well as critical thinking (Cai, 2002) as discussed in
the next subtopic.

Critical Thinking

Critical thinking skills were the results of information processing activities using
organizational and elaboration strategies (Weinstein, Woodruff, & Await, 2004). In fact, John
Wherry, Kristen Amundson, and Luann Fulbright (2001), as the educators at the Parent Institute
in a monogram entitled “Critical Thinking Skills.” They explained, “Critical thinking skill . . .
[were] the most important skills for success in school – and in life” (p. i). The author outlined
for teachers and parents how to teach their children the following six basic critical thinking skills: observing and questioning, classifying, comparing, summarizing, hypothesizing, evaluating and decision making (Wherry, Amundson, & Fulbright, 2001). They also reminded parents that the skills were useful in language arts, but “observation” as a critical thinking skill was equally needed as background knowledge for science and mathematics (Wherry, Amundson, & Fulbright, 2001).

Critical thinking skills, according to Mel Levin (2002) in A Mind at a Time, were higher-order skills that released pupils from relying on rote memory to perform academic tasks. In fact, Levine (2002) suggested seven (7) steps for parents and teachers to correct the deficiency in critical thinking. He also warned that children who had not learned to look beneath the surface of things using critical analysis usually were the ones highly influenced negatively by peer pressure and often made wrong choices involving the law. Consequently, as a life skill pupils needed to learn how to assess “... the validity and quality of ideas, people, and things (Levine, 2002, p. 203). In brief Levine (2002) suggested the following activities: 1) list the important facts of a story based on details, 2) identify the author’s point of view from words, phrases, ideas found in the text, 3) identify personal points-of-view, 4) point out errors in thinking, overstatements, exaggerations made by the characters or in the authors explanations of the characters actions, 5) learn how to do library research to support personal point-of-view, 6) look at all entities in the text for facts for making an informed opinion, and 7) present in a reader response the private thoughts about a story or a text in a cohesive and convincing manner to explain why and how the evaluative conclusions were based.

Although James Comer (2004) in Leave No child Behind, in general, suggested some of the same approaches that Mel Levine (2002) addressed, he also included critical thinking for
cognitive development. However, Comer did not identify the major academic problem that hindered African American boy’s academic performance. These issues were discussed in the next section, “African American Boys, ‘What’s Your Major Academic Problem?’”

**African American Boys, “What’s Your Major Academic Problem?”**

The literature tended to suggest that critical thinking involved cognitive skills utilizing the long-term memories for organizational and elaboration strategies (see Table 2-4 in the List of Tables) were vital for academic success. But, there was no consensus on a solution to African American pupil’s underachievement, in general. In fact, Gail Thompson (2004), in *Through Ebony Eyes: What Teachers Need to Know but Are Afraid to Ask about African American Students* argued that if African American kids weren’t dumb or lazy, why they were still underachieving? Thompson searched the literature and found ten (10) theories that addressed the issue: They were “the deficit-deprivation theory, the theory of structural equality, tracking, the theory of cultural discontinuity, ‘Fourth Grade Failure Syndrome’, the ‘acting white’ theory, the peer-pressure-and the lure-of–street life theory, the parents-are-at-fault theory, under prepared teachers, and low teacher expectations” (p. 13). Thompson acknowledged that all of the theories explained different reasons for poor academic success. Yet, the initial question that gave rise to her research was not forthcoming for a teacher/teacher educator’s curriculum and instruction solution. Neither did Thompson propose a solution to African Americans’ academic plight or answer her initial question. Instead, she gave an anecdote about an African American boy who won a spelling bee, but the teacher disqualified him unjustly. When the boy later proved to the teacher in private about the error, she failed to apologize for the mistake. Instead, the teacher acted out the stereotypic behavior of “. . . the black boy threat to [white] women” (Thompson, 2004, p. 33). Acknowledgement of the teacher’s pathological problem of racism and gender did little to help African Americans to increase their scores on the Florida
Comprehensive Assessment Test (FCAT) or the Scholastic Assessment Test (SAT) (Noguera, 2002).

In the meanwhile, Lamont Flowers (2002) was analyzing tests and inventories to answer the same question in general for student affairs’ graduate students that Gail Thompson (2004) posed. Flowers suggested that the Learning and Study Strategies Inventory’s (LASSI) validity proved to be most appropriate as a research tool to answer the question (Welch, Bowie, & St. Juste, 2004). As a follow-up to Flowers’ suggestion, during the 2002-2003 academic year, participants in the College Reach-Out Program (CROP) for students in rural high schools in a surrounding county near a research university were administered the LASSI to determine their academic strengths and weaknesses of some students that had difficulty with passing the Florida Comprehension Assessment Test (FCAT) (Welch, Bowie, & St. Juste, 2004). After isolating the African Americans’ scores by gender, the boys’ strengths were in three subscale areas: concentration, study aids, and time management. Their academic weaknesses, however, were test strategies and information processing subscales. Of the two, information processing was their major academic problem (See the Appendix for full description of the pilot study) (Welch, Bowie, & St. Juste, 2004). Having identified the major academic problem for some underperforming African American boys, the researcher and other educators had a tangible concept applicable to teaching and learning (Welch, Bowie, & St. Juste, 2003).

In this vein, Mingshui Cai (2002) theorized that culturally conscious multicultural literature helped pupils to develop cognitively by engaging in reader response, while Weinstein, Woodruff, & Await (2004) developed an instructional module to help pupils to develop the necessary skills like information processing. The activities the cognitive psychologists suggested for strengthening information processing skills were closely related to reading comprehension.
skills. The details regarding the two were discussed in the topic, “Reading for Cognitive Development”, after the summary of “cognitive Processes for Learning.”

**Summary: Cognitive Processes for Learning**

African American psychiatrists, James Comer and Alvin Poussaint (1992), suggested that cognitive processes for learning began before pupils enrolled in primary school. Thus, parents were the first teachers upon which classroom teachers further developed cognitive skills. Parents were also told to encourage achievement in both academics and athletics for realistic career choices. Their views as medical educators at Yale and Harvard were succinct. They explained how standardized tests were often used to support and/or rationalize social policies undergirded with white racism for white privileges. Admitting that the practice was beyond the pupils’ control, they told parents to educate their children to become computer savvy, academic scholars and achievers. By doing so, parent would stop inadvertently teaching them to be docile and thereby no longer honored the social etiquette of white supremacy (Comer & Poussaint, 1992).

Multicultural literature usage’s strongest advocate was Mingshui Cai (2002). In addition to being a vehicle to achieve cultural diversity, he argued that multicultural literature was conducive for racial minorities to see their lived experiences in print. When reading about experiences to which they related, pupils more easily formed background knowledge for formal cognitive-developmental training and learning. In this regard, Claire Weinstein (2003) spent more than two decades researching and teaching how to use prescribed thought patterns to process information for academic success. Her research also supported Cai’s cognitive-developmental dimension theory.

Thus, reader response to children’s multicultural literature accommodated the 16 cognitive activities in Table 2-4 in the List of Tables that enhanced academic learning (Weinstein, Woodruff, & Await, 2004). Cai (2002) called the phenomenon the cognitive-developmental
dimension for reader response drawing upon Louise Rosenblatt’s (1980) transactional theory. Hence, oral and written reader responses were created from mentally processing details from the multicultural literature using short-and long-term memories (Weinstein, Woodruff, & Await, 2004). Although the process of learning how to formulate thought patterns were labor intensive, Mel Levine (2002, 2007) maintained that the discovery of one’s cognitive “backpack” was essential for academic success. In other words, children must be taught how to use their short- and long-term memories to their advantage to succeed in academic settings, as well as critically thinking skills for personal survival and well being (Levine, 2002). Critical thinking skills, however, engaged pupils’ skills in organizational and elaboration activities and higher-order thinking strategies, according to Matthew Lipman (2003).

To determine the best approach to instruct some underperforming African American boys’ cognitive processes, an inventory’s findings revealed that the African American boy’s major academic problem was information processing (Welch, Bowie, & St. Juste, 2004). In as much as the same neurology process of information processing took place when humans read, the researcher’s attention turn to literature about reading and literacy to understand the cognitive strategies that were involved neuroscience (Willis, 2007b). After a general search, special attention was given to the literature that discussed reading for cognitive development since Michael Pressley (1993) and Gerald Duffy (2003b) theorized that the reading helped students to develop in this area. In addition, Mingshui Cai (2002) theorized that culturally conscious multicultural literature specifically helped racial minorities pupils to develop cognitively. The literature review concerning these issues was discussed in the next section, “Reading for Cognitive Development”
Reading for Cognitive Development

The third strand, “Reading for Cognitive Development” involved a brief discussion of five subtopics. They included reading selections for African American boys, reading skills for cognitive development, information-processing skills of disadvantaged readers and learners, information-processing competencies and reader response, and the American Psychological Association’s (APA) task force report on intelligence. Since some African American boys’ major academic problem was information processing (Welch, Bowie, St. Juste, 2004), the literature was reviewed for meaningful approaches, activities, and intervention programs to enhance cognitive development through the reading process (Duffy, 2003; Duffy & Roehler, 1989). No emphasis or attention was given to the way a teacher or parent chose to teach reading using the phonics or whole language approaches (Duffy, Sherman, Roehler, 1997). Since the population of this study was in grades 3, 4, and 5 where pupils primarily read to learn, the reading debate about the best approach for teaching pupils to read was of little concern (Duffy, Sherman, Roehler, 1997). However, the issues about using multicultural literature were discussed.

Reading Selections for African American Boys

Kathy Short and Dana Fox (2003) in Stories Matter: The Complexity of Cultural Authenticity in Children’s Literature explained how stories influenced the “... ways in which children think about themselves and their place in the world as well as the ways in which they think about other cultural perspectives and peoples” (p. v). Therefore, the reading selections for African American boys to read for cognitive development also served “... a crucial role in multicultural education, social justice, and reform” (Short & Fox, 2003, p. 8). In this vein, multicultural literature became a pedagogical term in Cai’s (2002) cognitive-developmental dimension theory in Multicultural Literature for Children and Young Adults: Reflections on
Critical Issues and Rosenblatt’s (1995) readers response. When African American boys read about their lived experiences, including “. . . the effects of living in a racist society” (Cai & Bishop, 1994, p. 68), the familiarity made it easier for them to formulate the necessary background knowledge for learning how to practice how to process information using a variety of thought patterns communicated through reader response (Cai, 2002) expected for academic settings (Weinstein, Woodruff, & Await, 2004).

In choosing reading selections for cognitive development (Cai, 2002) as Zhihui Fang, Danling Fu, and Linda Lamme (2003) wrote, “Multicultural literature cannot serve as the handmaiden to skill-and-drill methodology” (p. 296). Although the authors were referring to using multicultural literature as a basal reader to teach reading skills, the principle applied also for teaching academic thought patterns when practicing the 16 cognitive activities in Table 2-4 in the List of Tables (Weinstein, Woodruff, & Await, 2004) in order to adopt personalized cognitive strategies (Willis, 2006). In fact pupils, must be given “. . . the opportunity to personally and critically respond to a text” (Fang, Fu, Lamme, 2005, p. 296) before the reading skills for cognitive development, as discussed in the next subtopic.

Reading Skills for Cognitive Development

Gerald Duffy and Laura Roehler (1989) in “Why Strategy Instruction Is So Difficult and What We Need To Do About It” admitted that the task was difficult because sometimes there was a disconnect between what the teacher said and what the pupils heard. Nevertheless, good teachers of reading made themselves understood and helped pupils to develop cognitively automatically. In the same vein, Duffy and Hoffman (1999) wrote, “There [was] no one ‘perfect method’ for teaching reading to all children. Teachers, policy makers, researchers, and teacher educators [including parents] needed to recognize that the answer [was] not in the method but in the teacher” (p. 10). However, early on in How to Teach Reading Systematically, Gerald Duffy,
George Sherman, and Laura Roehler (1997) outlined a graded timeframe for the development of certain reading skills for cognitive development. They were designed for K-5, K-6, grades 4-10, and grades 7-12. The three of the four divisions were briefly summarized.

**K-5, word recognition skills and comprehension**

To reach the dual goals of word recognition and comprehension, pupils learned the graphemic, syntactic, and semantic systems (Duffy, Sherman & Roehler, 1997). In brief, the graphemic coding system involved the initial, interrelated signals related to printed letters and words. Through practice, pupils learned how to make the association between speech and print (Moats, 2002). When the pupils made the mental association, the application involved the cognitive act of moving “... the words from the page into the child’s head” (Duffy, Sherman, & Roehler, 1997, p. 35).

The next set of basic reading skills involved the syntactic signals (Duffy, Sherman & Roehler, 1997). Pupils learned the meaning of words in phrases, sentences, or paragraphs (Duffy, Sherman & Roehler, 1997). The thoughts from syntactic signals that came from “chunks of words “for the children to receive a message were considered to be very involved cognitive act (Duffy, Sherman & Roehler, 1997). Likewise, the third set of generalized reading skills involved the semantic signals. By using the graphemic and syntactic systems, pupils learned through practice how to process semantics mentally (Duffy, Sherman & Roehler, 1997).

The cognitive acts involving the semantic system, however, occurred in the brain simultaneously and automatically (Moats, 2002; Pressley, 1993; Rosenblatt, 1989). For example, Rosenblatt (1989) wrote, “Meaning [did] not reside ready-made in the text or the reader; it [happened] during the transaction between the reader and text” (p. 157). Rosenblatt (1989) described the cognitive act “the reading transaction” (p. 157). The cognitive psychologists and neuroscientist called the same action “information processing” (Pressley,
Consequently, word recognition and comprehension occurred simultaneously within the cognitive act of reading and information processing (Pressley, 1993).

**K-6 reading comprehension skill**

In general K-6, the main focus was the development of comprehension skills within the cognitive development process. Therefore, it was a part of learning “speech to print” (Moats, 2002). Systematically, the pupil learned the informational process when they grasped the factual content, learned the thinking or manipulative process, and evaluated or judged the process (Duffy, Sherman & Roehler, 1997). These three operational skills caused the pupil to understand the text (Moats, 2002). Although the description of the reading process was summarized very briefly, the process of learning to read was “a complex and purposeful socio-cultural, cognitive, and linguistic process” (NCTE Commission of Reading, 2007).

**Grades 4-10, reading skills for efficient study**

According to Duffy, Sherman and Roehler (1997), “efficient study” was a reading skill beyond functional literacy. Therefore, cognitive development beyond the level involved practicing “locational” skills such as finding information in directories, dictionaries, various kinds of libraries, and the Internet (Duffy, Sherman & Roehler, 1997). Second, pupils learned organizational skills: outlining, notetaking, summarizing, and constructing graphic organizers (Duffy, Sherman & Roehler, 1997). After organizing materials, pupils learned how to use the SQ3R (survey, question, read, review, and recite method to recall information) (Duffy, Sherman & Roehler, 1997). Third, pupils learned how to adjust their reading rate according to the complexity of the text (Duffy, Sherman & Roehler, 1997). Pupils were expected to have mastered these skills before leaving the tenth grade (Duffy, Sherman & Roehler, 1997). In other words, in high school pupils focused on “recognizing and interpreting informal and persuasive
techniques and recognizing and interpreting literary characteristics (Duffy, Sherman & Roehler, 1997, p. 319) from reading a variety of complex literary selections.

As a final comment in the discussion about the division of reading skills for cognitive development by grades in elementary and high schools, Fang, Fu, & Lamme (2003) cautioned practitioner “. . . to integrate skills instruction with multicultural literature . . . [utilizing] a whole-part-whole approach” (p. 296). Simply let the pupils first read, comprehend, critique, and enjoy the reading selection. Then, teach the skills or cognitive strategies by drawing from or extending the text. Finally, encourage the pupils to apply the newly acquired skills with other readings for enjoyment (Fang, Fu, Lamme, 2003). In addition How to Teach Reading Systematically reading skills for cognitive development and the graded levels were based on eight reading approaches to teaching reading according to four general definitions of reading categories: “reading as a learned system, reading as a language process, reading as an interest” (p. 7), and reading as an exploration of cultures. However, the authors admitted that “. . . none of the eight approaches reflect[ed] a cultural definition per se, so that one approach [was] omitted” (p. 7). However, it was well documented that multicultural literature for teaching reading was highly effective for African Americans (Cai, Sims-Bishop, 1994; Harris, 1990; Rickford, 1999; Tucker, 1999).

Information-processing Skills for Disadvantaged Readers and Learners

In “Teaching Cognitive Strategies to Brain-injured Clients: The Good Information-Processing Perspective”, Michael Pressley (1993) confirmed Gerald Duffy and Laura Roehler’s (1989) research in “Why Strategy Instruction Is So Difficult and What We Need to Do About It.” Disadvantaged readers and learners, however, were taught how to predict what a text was about, relate their background knowledge to the text, and ask questions (who, why, what, when, where, how) as they read. They were also taught how to monitor their understanding of the text, seek
clarification of words or parts of the text with unclear messages, and summarize the text—all of which described activities of skilled readers (Duffy, 2003; Duffy & Roehler, 1987; Pressley, 1993).

Since teaching information process as merely thought patterns to communicate a certain way for a particular audience was often difficult for teachers, in Explaining Reading: A Resource for Reading Concepts, Skills, and Strategies, Gerald Duffy (2003) wrote explicit directions for the following categories: modeling the thinking, scaffolded assistance, application in reading, and application in writing. The script for teachers entitled “Modeling the Thinking”, for example, included what to say to pupils to avoid miscommunication. Hopefully with the script, disadvantaged readers and learners became practitioners of the same cognitive activities like other pupils (Weinstein, Woodruff, & Await, 2004). In Improving Comprehension: 10 Research-based Principles, Duffy (2003b) wrote collectively for improving reading comprehension in grades 3, 4, and 5 using “the whole language approach” that was often called “the teaching of reading as language process” approach in his earlier research (Duffy, Sherman, & Roehler, 1997).

Likewise, Richard Allington’s research in What Really Matters for Struggling Readers: Designing Research-based Programs explained that struggling readers needed to practice thinking about what they read. Then, they also needed practice in describing their thinking (Allington, 2006). Because struggling readers spent so much energy performing the mechanics of reading, these pupils lacked knowing when to apply a particular cognitive activity to achieve a certain thought pattern. Therefore, they benefited from modeling the information processing technique (Allington, 2006). Children born and reared in low literacy environment also lacked
these metacognitive skills (McGill-Franzen, Lanford, & Adams, 2003) and needed explicit instruction in the information-processing technique (Allington, 2006; Duffy, 2003).

**The dominant-specific knowledge approach**

Eric Donald Hirsch, Jr. (1988) in *Cultural Literacy: What Every American Needs to Know* theorized a different approach for teaching reading and reading comprehension to disadvantaged readers and learners. He argued that the lack of core knowledge about Western culture was the basic cause of poor performance on national and international reading tests. Hirsch, Jr. drew heavily upon George Armitage Miller’s (1969) theory. As a cognitive scientist, Miller wrote *The Psychology of Communication*, in which he explained that individuals held about seven “new inputs” in their short-term memory. Hirsch, Jr. explained that when children read a passage on a test that they had no prior background knowledge, their reading comprehension was hindered because of the “new input” overload, even if the pupils achieved fluency they would not have enough time to perform well on the test. Therefore, he advocated teaching domain-specific knowledge (2006) because that was what state, national, and international reading tests were testing although the test makers pretended that formal reading skills were being tested (Hirsch, Jr., 2006).

In fact, the tests favored those with the domain knowledge about the reading passage, thus the tests were culturally biased, according to Hirsch, Jr. Consequently, racial minorities performed less well on reading tests because they lacked the cultural background to process the information quickly in order to answer the time-test questions correctly (Hirsch, 2006). He also argued that rich oral, contextual language environments in the proper school culture would erase the deficiency and the achievement gap on the pupils’ reading performance would be narrowed. Consequently, Hirsch, Jr. (1988) theorized that the learner needed to acquire a cultural background as a basic mediated learning approach for performing well on standardized reading
tests. Other approaches, however, were discussed in the next section called “the Mediated Learning Experiences (MLE) Approaches.”

**The mediated learning experience (MLE) approaches**

Six years before B. F. Skinner (1990) finished writing the night before he died “Can There Be A Science of the Mind?,” Robert Thorndike (1984) wrote “Intelligence as Information Processing: The Mind and the Computer.” Unlike Skinner, Thorndike acknowledged cognitive science and cognitive psychology. However, they both thought intelligence was biologically determined. Thorndike also accepted that there were “. . . individual differences in higher-level cognitive functioning . . . (p.15), but, if “. . . all the cultural differences were eliminated, these biological differences would remain” (p. 15). Reuven Feuerstein (1980) who worked with culturally deprived pupils in Israel proved Thorndike’s theory false in *Instrumental Enrichment: An Intervention Program for Cognitive Modifiability*. In fact, Feuerstein formulated an intervention program to reverse pupils’ cognitive deficiencies. He realized that “. . . children from economically and psychologically impoverished homes perform[ed] poorly on intelligence tests and function[ed] generally at a low level because they [had] been denied appropriate mediated learning experiences (MLE)” (p. xiv). He further wrote, “. . . retarded cognitive performance [was] a reversible condition” (p. 678). For novice teachers to duplicate MLE the entire Instrumental Enrichment Program was entered in the Appendix of his book, *Instrumental Enrichment: An Intervention Program for Cognitive Modifiability*.

Later, Feuerstein, Rand, and Rynders (1988) applied the concept of MLE with students that were mentally challenged in the book, *Don’t Accept Me As I Am: Helping ‘Retarded’ People To Excel*. The authors explained “[T]he ingredient necessary to turn an experience into a source of learning [were] found in prompting the individual to label, compare, group, categorize, and give meaning to the present experience as it [related] to former ones” (p. 55). These activities
were analogous to information processing methods that all proficient learners used (Weinstein, Woodruff, & Await, 2004). When adults used MLE to help students to learn about core knowledge and social behaviors, the authors noted that the MLE was used as “a second form of interaction . . .” (p. 55). The usage of MLE on two levels reaffirmed Feuerstein, Rand, and Rynders’ (1988) belief in Jerome Bruner’s notion that MLE was not “. . . just for the handicapped, it [was] for all of us since it . . . [was what made] us human’” (p. 87).

In that vein, Alfred Tatum (2005) in *Teaching Reading to Black Adolescent Males: Closing the Achievement Gap* also used mediated learning experiences (MLE) to teach adolescent African American boys in the lower reading tracts. Tatum used literature that reflected their culture and immediate surroundings rather than using the selection in the basal textbook. Orally, they received additional core knowledge about the reading selection in order to elevate their thinking before teaching a specific reading concept (Tatum, 2005). Through class discussion, he determined if the students had internalized cognitively the necessary background to receive additional new on-grade level academic tasks (Tatum. 2005). Hence, Tatum adopted the general rule that once a caring adult captured children’s attention, they would learn.

**Information-Processing Competencies and Reader Response**

Linda Lamme (1976) in “Are Reading Habits and Abilities Related?” revealed that some researchers found relationships between children’s reading abilities with the amount of their recreational reading, as well as a possible link to the amount of their reading, in general, to their intelligence. In this regard, Michael Pressley (1993) in “Teaching Cognitive Strategies to Brain-injured Clients: The Good Information Processing Perspective” studied the relationship between reading comprehension and cognition, while Robert Sternberg in *The Triarchic Mind: A New Theory of Human Intelligence* (1988) and “How Can We Teach Intelligence?” (1992) explained the application of the information-processing system and human intelligence. In addition,
Michael Pressley and Vera Woloshyn (1995) in *Cognitive Strategy Instruction that Really Improves Children’s Academic Performance* also revealed that good information processing for general intelligence involved some of the same cognitive strategies used for reading comprehension. Both researchers agreed that some of the cognitive processes that were used for reading comprehension became automatic as a result of continued exposure to and practice of these skills.

However, Robert Sternberg (1992) extended the idea of just benefiting from recreational reading and acquiring reading comprehension skills from good information processing to teaching intelligence through reader response. Drawing heavily upon the work of Reuven Feuerstein’s (1980, 1988) research using mediated learning experience (MLE), Sternberg (1992) proposed for teachers to use “think-alouds” to help them to choose a cognitive strategy (metacognition) for appropriate application to solve problems. Next, they were to show the steps involved for solving the problem or completing a task (performance). Finally, they were to give instructions about how to learn new information for storage into their short-and long-term memories (knowledge-acquisition). These three mental components all involved in strengthening their reasoning, one of the components of intelligence (Sternberg, 1992). From reading children’s literature and discussing the readings in class enabled pupils to practice cognitive strategies while being guided by an experienced reader (Sternberg, 1992). In addition, if the pupils were allowed to give reader responses that expressed their heuristic interpretation, they often discovered their comfort zone for using certain thought patterns and a preference for a particular cognitive strategy (Sternberg, 1992). For assessment, teachers asked questions to understand how the pupils mentally processed the texts. Through this type of dialogue, pupils were ultimately taught vital thinking skills “for both academic and everyday information.
processing” (Sternberg, 1992, p. 152). Consequently though reading and reader response, pupils acquired the abilities to define and re-define problems insightfully, the two major factors of intelligence, according to Sternberg (1996) in *Successful Intelligence*.

**Critical literacy**

Dixie Spiegel (1998) in “Reader Response Approaches and the Growth of Readers” explained that critical reading and higher levels of thinking increased elementary pupil’s repertoire of reader responses. The process, therefore, enhanced their growth to become strategic readers. Kasten, Kristo, & McClure in *Living Literature Using Children’s Literature to Support Reading and Language Arts* agreed with Spiegel. The authors explained that the mental process involved many intricate, cognitive functions for the brain to make meaning from the symbols on the printed page. Therefore, they maintained that reading comprehension was thinking, and when pupils read critically they became proficient (Kasten, Kristo & McClure, 2003).

However, thinking often occurred without reading and likewise for critical literacy (Freire & Macedo, 1987). Although Duffy, Sherman, and Roehler (1997) in *How to Teach Reading Systematically* adopted the hierarchical approach for teaching reading skills suggested for pupils to learn critical literacy skills in the seventh grade, Donna C. Creighton (1997) in “Critical Literacy in the Elementary Classroom” disagreed when she explained that young children needed to “. . . critically analyze texts and illustrations for an author’s point of view, intended audience, and elements of inclusion or bias” (p. 439). In the same vein, Kasten, Kristo, and McClure (2005) noted that picture books’ illustrations were excellent tools to teach and/or address issues in social justice, ethics, civil rights, and human rights. Consequently, the ability to read words on paper was not necessary required in order to engage in a critical discussion in an elementary language arts classroom (Kasten, Kristo, & McClure (2003). Collectively, these authors that expressed critical literacy for the elementary classroom practice were more in agreement with
Ernest Morrell’s (2004) definition of critical literacy as “the ability to assess texts in order to understand the relationships between power and domination” (p. 5). In Becoming Critical Researchers: Literacy and Empowerment for Urban Youth, Morrell explained that critical literacy included power domination exhibited in the digital media, movies, arts, and many other means of expressions.

In fact, Alfred Tatum (2005) in Teaching Reading to Black Adolescent Males: Closing the Achievement Gap discussed how he used the critical literacy pedagogy to teach pupils how to read multiculturally the Pledge of Allegiance that they recited each morning in school. First, he instructed the pupils to write the Pledge of Allegiance from memory. From their text, they applied critical thinking skills for deep-structural reading and analysis. Then, they discussed the Pledge of Allegiance in terms of its democratic applications to different cultures in society. Next, they engaged in extended-readings and research activities that involved the issues of the postmodern culture of the inner city as it related to the Pledge of Allegiance and with other art forms that depicted multiculturalism (Cai, 2002; Kincheloe & Steinberg, 1997). Thus, Tatum’s (2005) critical literacy approach engaged the usage of organizational and elaboration strategies (Weinstein, Woodruff, & Await, 2004) for literacy understanding (Duffy, 2004) of the Pledge of Allegiance. Hence, the pupils’ reader responses involved the issues of race, gender, poverty, and class as they processed information about their lived experiences from their short- and long-term memories (Tatum, 2005).

**Creative thinking, divergent thinking, and culture**

Alfred Tatum (2000) in “Breaking down Barriers that Disenfranchised African American Adolescent Readers in Low-level Tacks” demonstrated also how he encouraged critical literacy, creative and divergent thinking within a cultural context. From reading culturally relevant literature, for example, its vocabulary words were used to create a “word wall.” However, the
text’s words inspired one pupil to write a lengthy poem as a reader response. In the poem, the pupil used each vocabulary word from the “word wall” correctly. The pupil’s actions involved information processing in a very complex manner (Torrance, 1977) because he incorporated creative thinking, divergent thinking, and culture. First, the pupil decided to use the words in the “word wall” in one text (creative thinking). Then, he expressed divergent thinking in creating poetry to express his feelings of racial oppression from external forces. However, the ideas of external social effects lead him to realize that he was oppressing himself by internalizing the negative thoughts. Thus to become self-actualized, he must conquer “The Man” (the title of the poem) inside himself first before overcoming the negative, outside social effects of oppression. The title, however, symbolized a double entendre; for in African Americans (culture) the title also referred to a dominant, white male as an oppressor. “Divergent Thinking”, according to Mark Runco (1999) in the Encyclopedia of Creativity was defined as “cognition that . . . led to another idea . . . ” (p. 578) often through association, as demonstrated in the pupil’s reader response. As he read the culturally conscious literature’s context about social injustice, his reading of the text multiculturally made him detect a personal flaw that he vowed to overcome. Thus, the reading of the text multiculturally empowered him (Cai, 2002).

Ellis Paul Torrance (1977) in Discovery and Nurtance of Giftedness in the Culturally Different explained that when the majority of people in a society valued a particular talent in a subculture, it was cultivated and adopted by others. Torrance’s research involved African American children. He found that they needed to be able to express feelings and emotions, as they improvised in a variety of ways to communicate. Not only were the African American children creative, according to Torrance, but they were divergent thinkers and gifted as well. Robert Sternberg (1988) in The Triarchic Mind also included the sociocultural environment in
his theory of creativity. Howard Gardner (2006), however, extended Torrance’s and Sternberg’s theories to explain how there were multiple intelligences as discussed in *Development and Education of the Mind: The Selected Works of Howard Gardner*. The three theorists’ views were encapsulated in Alfred Tatum’s pedagogical approach to teaching African Americans reading in the lower reading tracts. The pupils’ reader response in Tatum’s classes involved culture, creative and divergent thinking that empowered them (Cai, 2002). Information processing of this kind enhanced his pupils’ cognitive growth when they used higher-level thinking patterns with organizational and elaboration skills (Weinstein, Woodruff, Await, 2004). Likewise, Valerie Ruth Kirschenbaum’s (2005) approach in *Goodbye Gutenberg* for reading combined visuals with verbal messages for reading the classics. Tatum’s and Kirschenbaum’s pedagogical approaches made powerful and memorable messages for building cognitive strategies (Hillman, 2003).

**Information processing and jazz**

Valerie Ruth Kirschenbaum’s (2006) research explained in “The Old Way of Reading and the New” how important the other senses, like visuals and sounds, influenced the way the brain processed new information. Likewise, Vera John-Steiner (1997), one of Lev Vygotsky’s pupils, discussed in *Notebooks of the Mind: Explorations of Thinking* that the reader and the jazz musician both build on prior experiences and background. In jazz, the aesthetic responses were called improvisations, for literature it was reader response. Therefore, the experiences of the jazz musicians’ last performances were always different from the prior one because of the extenuating, physical, and mental conditions (Oldfather & West, 1994). The same mental process happened when children chose to read the same book many times because the previous reading gave a schema (Anderson, 2001). For each “new” reading, the children added more creative ideas for pleasure to their schema’s repository of knowledge (Smith, 1997). Louise
Rosenblatt (1968) in *Literature as Exploration* maintained that each reading of a text was a different “happening” because of the environmental and contextual circumstances to impact the reader’s mindset. Using the same terminology, the jazz musicians also called their performances a “happening” (Oldfather & West, 1994).

For example, when jazz musicians played a tune it was not played the same way even though they followed the tenets of harmony and/or dissonance common for the musical selection (Oldfather & West, 1994). Yet, within the musical score’s constraints, they improvised notes after listening intensively to the music of the other players in order to respond appropriately (Oldfather & West, 1994). The music’s sounds acted as mental stimuli that affected them emotionally (Oldfather & West, 1994). Simultaneously, the vibrations generated by the sounds created energy that bounced from the walls, people, and other contents in the environment to affect them physically (Oldfather & West, 1994). Then, they watched the body language of the other musicians to determine when to contribute to the musical score with their individualistic improvisations (Oldfather & Wise 1994). Yet, a stylized improvisation allowed a definitive musical signature, according to Solomon, Powell, and Gardiner (1991) in their discussion of “Multiple Intelligences.” They wrote, “For example, jazz trumpet player Miles Davis’s rendition of classic tunes . . . [would be] somewhat different with each performance but . . . [they would be] always recognizable as his” (Solomon, Powell, & Gardiner, 1999, p. 278). Likewise, Vera John-Steiner (1997) explored “the diverse process of artists, scientists, philosophers, and historians . . . (p. 3) in three major contexts of literature, music, and science” (p. xviii) found that each individual had a distinct characteristic or “signature.” In the same vein, when an individual read a text, the reader response was also distinct from another reader (Rosenblatt, 1980).
In addition, John-Steiner (1997) also observed how the Navajo Indian children in Rough Rock, AZ used visual symbols in play and other forms of communication. Likewise, she noted that Chinese writing consisted of visual characters that supported words. Consequently, she concluded that the different “cultural variations in the forms and roles of language and their connections to other symbol systems” (p. xix) was embedded in the thought process. Therefore, she used the phrase “cognitive pluralism” (p. xvi) to describe the cognitive strategies of the highly creative individuals, because they processed certain information in various ways to create their craft. Therefore, creative people may use sounds, visuals, and language in a variety of creative and divergent thought patterns as they processed information (John-Steiner, 1997), just as a reader would use in generating a reader response during the transactional moments (Rosenblatt, 1968). Scholars, like Vera John-Steiner, Ellis Paul Torrance, Robert Sternberg, and Howard Gardner that acknowledged cultural variations in information processing and intelligence prompted the American Psychological Association (APA) to form a Task Force to study intelligence (Neisser, et al., 1996) as summarized in the next section.

The American Psychological Association’s (APA) Task Force Report on Intelligence

As more theorists acknowledged information processing as intelligence like Robert Thorndike (1984), while also emphasizing the social contextual components of intelligence like Lev Vygotsky (1978) in Mind in Society: The Development of Higher Psychological Processes and the role or sociocultural environments on the human expression (Sternberg, 1988), the controversy prompted “. . . a new record of debate about the meaning of intelligence test scores and the nature of intelligence within the American Psychological Association (APA) assemblies” (Neisser et al., 1996, p. 77). The final report consisted of six parts: concepts of intelligence, intelligence tests and their correlates, the genes and intelligence, environmental effects on intelligence, group differences, and summary and conclusions. The report yielded seven findings
as a conclusion with a discussion of each. In brief, the seven findings as conclusions were parsed for the “Review of Literature” into twelve (12) “known facts” with nine (9) “unknowns”, unresolved issues and unanswered questions about intelligence as listed in the Appendix. Out of the 21 statements, number #3 of the Task Force’s “Knowns”: “school attendance and the quality of instruction were important for the development of intelligence” Neisser et al., 1996) and number #9 of the “Unkowns”: “what aspects of schooling were critical to the development of intelligence” (Neisser et al., 1996 were of significance to this study.

In addition, the Task Force reported the array of definitions to denote the complexity of human intelligence with no final consensus (Neisser, et al., 1996). Their exploration, however, included Howard Gardner’s multiple intelligence theory and Robert Sternberg’s triarchic theory (analytic, creative, and practical). Sternberg’s theory also embraced the psychometric approach in the analytic aspect of intelligence. For the developmentally based concept of intelligence, the Task Force also discussed Jean Piaget and Lev Vygotsky’s theories with an acceptance of the Russian psychologist Vygotsky’s belief that “all intellectual abilities [were] social in origin”(Neisser et al., p. 80). The Task Force’s decision about culture was not as clearly supported. It admitted that it was “… very difficult to compare concepts of intelligence across cultures” (Neisser et al., 1996, p. 79). Although it stated that language and thought were fundamental in the development of mental ability (Neisser et al., 1996), which further confirmed Vygotsky’s theory.

Although the Task Force predicted that brain-imaging instruments would help to solve some of the debate, the report failed to include in the final report two brain imaging studies published in 1990. One study involved using position emission tomography (PET) to study brain development in living humans (Chugani & Phelps, 1990). Significance to this study was that it
revealed how “neuronal processes and synaptic connections must be constructed before they could function (Chugani & Phelps, 1990). The other study involved the brain morphology with Magnetic Resonance Imaging (MRI) of nine normal children aged 8 to 10 years in comparison with 15 adults brains aged 25 to 39 years old (Jernigan & Tallal, 1990). The results of the study revealed that the brain continued to mature over the age-ranges with increased gray matter more so than the white matter which had the potential for mental capacity (Willis, 2006). Both studies revealed addition information of the processes of the brain and the understanding of human intelligence that influenced this ethnographic study. A third study involved using the PET to observe the brains of six right-handed men reading two descriptive environmental passages (Mellet, et al., 2002). The brain activity was in the parieto-frontal network with some activity in the Broca and Wenicke’s areas. But, when they learned information from the topography of a printed map, the PET showed activity only in the right медиаль temporal lobe. Therefore, the study in part, gave validity to Ruby Payne’s (2001) classroom practice for observing pupils’ eye movements to gain some insight into how they processed information. Restak (2006) also theorized that eye movements were a way to observe the act of human’s processing information without instruments because the eyes served as laser beams to activate the neuronal circuits to retrieve stored memories from various parts of the brain.

Since the Task Force’s Report in 1996, the neuro-Magnetic Resonance Imaging (fMRI) was created (Restak, 2006). However, teachers must heed Judy Willis’ (2007b) advice that the human brain was very complex and that fMRI scanning did not support “a one-size-fits all” approach to teaching children how to read. Therefore, the research in neuron-imaging was “ . . . still highly suggestive, rather than completely empirical . . . ” (p. 82). Like Restak (2006), Judy Willis (2007b) understood the dilemma involving the limitations of fMRI because she was a
certified neurologist for 20 years. Willis became concerned that some politicians advocated that phonics was “the method” to teach children how to read based on research that used neuro-imaging. As a neurologist and classroom teacher, Willis maintained that there was no scientific evidence to support the claim.

Most significantly, however, the Task Force deconstructed racists’ theories that most white supremacists utilized (See numbers #1, 2, 11, 12 of the “Known Facts” and numbers #1, 7, 8 of the “Unknowns” in the Appendix).

**Summary: Reading for Cognitive Development**

In spite of the lack of empirical evidence with scientific machinery in a laboratory to record how the brain learned (Neisser et al., 1996; Restak, 2006; Willis, 2007, 2007b), classroom teachers still drew conclusions from classroom research about teaching reading for cognitive development through “think-alouds” and eye observations along with body language (Restak, 2006). For example Gerald Duffy (2003), one of the reading experts, systematically studied reading as a way to help individuals with their cognitive development since the 1980’s, while some educational psychologists constructed a learning and study skills inventory (Weinstein, Woodruff, & Await, 2001, 2004) to help individuals to discover their strengths and weaknesses for matriculating in academic settings (Pressley & Woloshyn, 1995; Sternberg, 1977, 1988; Sternberg & Grigorenko, 2001; Weinstein, 2003). Collectively, these individuals discovered that some of the same reading comprehension skills were also information-processing skills that equally enhanced pupils’ cognitive abilities (Duffy, 2003; Pressley, 1993; Pressley & Woloshyn, 1995). Reuven Feuerstein’s (1989) research proved how young readers were trained through mediated learning experiences (MLE) how to develop cognitively.

While Alfred Tatum’s (2005) pupils in low reading tracts learned higher-order thinking skills from reading culturally conscious literature (Cai, 2002), he engaged in meaningful
dialogue to motivate their thinking. Tatum (2000) also used critical literacy to empower pupils by using creative and divergent thinking within a cultural context. Culturally conscious texts served as background knowledge so that readers would expedite their energy on discovering how to practice processing information from short- or long-term memories in order to recall facts when needed for standardized texts, classroom activities, or creative thinking for solving problems or creating new products (Cai, 2002; Tatum, 2005). Tatum (2005) also found that African Americans pupils in low reading tracts benefited from using culturally conscious texts to learn how to read texts multiculturally because the texts gave the pupils the necessary background to teach higher-order thinking skills. In the same vein, Eric Donald Hirsch, Jr. (2006) explained how background knowledge was important to perform well on standardized reading tests. However, he asserted that reading comprehension tests were unfair because they tested background knowledge common to the group that was used to standardize the test, while the test pretended to assess formal reading skills. Because the subject matter was unfamiliar to the test-taker, the fluency-level was reduced when the reader had to slow down to process the new information before trying to formulate an answer to correspond to one of the preferred answers (Hirsch, Jr. (2006). Consequently, the tests were unfair (Hirsch, Jr. (2006).

Vera John-Steiner (1997) also discovered how important background knowledge was to jazz musicians. In fact, they used information processing similar to individual’s cognitive strategies and techniques used to generate reader responses from reading literature (Rosenblatt, 1980). Since jazz was created by African Americans, John-Steiner (1997) realized they were creative and intelligent even though they were often devalued as people. In that vein, the American Psychological Association Task Force on Intelligence’s report, however, further supported her assumption that racism was a social construct with little scientific support.
Although Lev Vygotsky’s “social cultural theory of the mind” (John-Steiner, 1997, p. xvi) which embraced the idea that all intellectual growth was affected by social contact and interactions, these educational implications were rarely discussed and researched in American universities prior to the 1960’s. According to Giselle Esquivel and Kristen Peters (1999) in discussing cognitive style and cultural diversity, non-Western and racial minorities in the United States were often considered “the other” because of their language, customs, religion, race, and/or socioeconomic status. Therefore to maintain an educational hierarchy, it was in keeping with social policy to rationalize why some individuals were incapable of assimilating into “white” culture, because they were genetically inferior (Ogbu & Stern, 2001). By so doing, “the other”, especially African Americans, became members of a social caste, according to John Ogbu and Pamela Stern (2001) in *Caste Status and Intellectual Development*.

As Robert Sternberg’s research and others with Vygotsky’s theory flourished, research universities began to notice, since their work was not grounded in Jean Piaget’s theory of human development and B. F. Skinner’s educational psychology with behavioral objectives as discussed in Robert Sternberg and Elena Grigorenko’s (2001 *Environmental Effects on Cognitive Abilities*). In fact, young educational researchers were once encouraged not to study the creativity of certain people (John-Steiner, 1997). For example, Vera John-Steiner (1997) from Budapest, Hungary explained in *Notebooks of the Mind: Explorations of Thinking* how biased an American university professor was when as a graduate student she wanted to study how creative people thought. Instead, she was told it was unscientific. However later on, she conducted the research and learned that the bias was not exclusive to the university because in an interview with Aaron Copeland, the great American music composer, said that he discovered the genius of American jazz in Paris, France from one of his French teachers and idol, Maurice Ravel (John-Steiner,
Although Copeland was born and reared in Brooklyn, New York, he escaped the music of nearby Harlem and did not know the value of it because the people who created it were not valued (Ogbu & Stern, 2001). However, for a musician to respond to hearing a musical score and instantly responded to it after “reading” the energy waves from the entire environment was information processing at its highest level to create “a happening” (Oldfather & West, 1994). Therefore each time a jazz piece was played it was always different.

Summarily, the original architects, Josiah Walls, H. C. Harmon, and Jonathan Gibbs, were African Americans that helped to create the public school system in Florida, in order to give all people equal access to education (Du Bois, 1975). Therefore, teachers and teacher educators began to deconstruct the social policies that excluded “the other” (Tatum, 1992). However, the two psychiatrists, James Comer and Alvin Poussaint (1992), told African Americans that they needed to adopt a different mindset to dishonor the social etiquette of “white supremacy” and to learn to use cognitive strategies to achieve in academics just as they did in music, sports, and dance. Yet, Judy Willis (2006) in Research-based Strategies to Ignite Student Learning Insights from a Neurologist/classroom Teacher explained how the amygdala in the temporal lobe did not function properly to process information due to negative social effects that generated stress, fear, and/or anxiety. Nevertheless, in spite of the negative social effects outside of pupils’ control, the African Americans psychiatrists, Comer and Poussaint (1992), advice to parents was to love their children and teach them black pride, self-esteem and not to internalize the negative things that influenced their learning.

Finally, since the State of Florida mandated how public schools provided appropriate instruction to assist students in the achievement of the Florida Curriculum Framework’s (1996) strands and standards with benchmarks for language arts, this research revealed how some
underperforming African American boys processed information when they read children’s literature. Collectively, the literature reviewed according to three strands, “Social Effects on Learning,” Cognitive Processing for Learning” and “Reading for Cognitive Development” supported the theoretical framework for the ethnographic study, *Cognitive Strategies of Underperforming African American Boys in Response to Children’s Literature*, as discussed in Chapter 3, “The Study”, which explained in detail the methodology.
Table 2-1. Black identity development.

<table>
<thead>
<tr>
<th>Stages</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-encounter</td>
<td>Believes and accepts White superiority; has adopted the idea that ‘white’ is right and Black is wrong; seeks to assimilate for social acceptance; aloof to other Blacks; identifies with the oppressor; self-hate.</td>
</tr>
<tr>
<td>2. Encounter</td>
<td>Acknowledges the impact of racial event(s); recognizes permanent non-acceptance as an equal in the dominate White group; identified with Black subordinate group because of rejection.</td>
</tr>
<tr>
<td>3 Immersion/Emersion</td>
<td>Surrounds one-self with Black cultural symbols with “Blacker-than-thou attitude and actively avoids symbols of whiteness; denigrates Whites while glorifying Blacks; explores Black history and culture from Black peers and organization; releases anger toward Whites to redirect energy toward group-exploration for a more affirmed sense of self-emersion.</td>
</tr>
<tr>
<td>4. Internalization</td>
<td>Secures oneself in Black identity and culture; becomes more expansive, open, and less defensive; established meaningful relationships with Whites who respect and acknowledges individual’s self-definition.</td>
</tr>
<tr>
<td>5. Internalization/</td>
<td>Anchors oneself in a positive sense of racial identity; perceives and transcends race pro-actively; discovers the universe of ideas, cultures, and experiences beyond Blackness to embrace human commonalities, interests and/or diversities.</td>
</tr>
<tr>
<td>Commitment</td>
<td></td>
</tr>
</tbody>
</table>

Table 2-2: White identity development.

<table>
<thead>
<tr>
<th>Stages</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Contact</td>
<td>Lacks awareness of cultural and institutional racism; lacks awareness of white privilege; sees racism as a personal act of meanness; unaware racism exists to create/maintain social dominance; fears people of color; gains knowledge about people of color from family, friends, TV, and other forms of media; lacks the ability to recognize stereotypes about people of color; has little or no interaction with people of color; unaware of racial issues.</td>
</tr>
<tr>
<td>2. Disintegration</td>
<td>Acknowledges the existence and role of the racist system; feels guilt, shame, anger from being a part of the dominate group; tries to relieve discomfort of being identified as the privileged group by blaming the victim or by denying racism exits; avoids contact with people of color; attempts to change friends’, family members’, colleagues’ racist attitudes.</td>
</tr>
<tr>
<td>3. Reintegration</td>
<td>Responds to societal pressure to accept white privileges; reshapes personal belief system to conform with racist system; projects fear and anger on to blacks and other people of color; believes source of internal turmoil and discomfort is caused by blacks; continues to remain at this stage if withdrawal of people of color occurs with no desire to examine one’s psyche; accepts the challenge to question one’s belief system or responds to stimuli to question the behavior of members of the dominate group; redefines “Whiteness” and racism in the course of self examination.</td>
</tr>
<tr>
<td>4. Pseudo-Independent</td>
<td>Makes a conscious effort to seek out information about people of color and analyze their critical remarks about white social dominance; abandons belief in white superiority, but may unconsciously still perpetuate the racist system; seeks personal contact with people of color to understand the social effects of racism in their personal lives; disavows Whiteness through active affiliation with blacks; feels alienated from dominant social group members who have not examined their own racist attitudes and behaviors; experiences rejection by some blacks or other people of color who do not understand the motives for information seeking.</td>
</tr>
<tr>
<td>5. Immersion/Emersion</td>
<td>Seeks a new comfortable way to be white; learns accurate information about the culture and history; seeks to replace racist myth and stereotypes with accurate information; learns about whites who were antiracist allies to people of color; learns how to unlearn racism from reading antiracist literature; learns from white antiracist individuals’ success of being an ally with antiracist people of color; resists racism in the environment.</td>
</tr>
<tr>
<td>6. Autonomy</td>
<td>Internalizes newly sense of self as white; feels positive about the redefinition and becomes energized to confront racism and oppression; allies with ease with white antiracist, blacks, other people of color; experiences racial self-actualization; remains open to new information and new ways to thinking about culture and race.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cultural Categories</th>
<th>Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rugged Individualism</td>
<td>- Individual achievement highly valued</td>
</tr>
<tr>
<td></td>
<td>- Individual more important than the group</td>
</tr>
<tr>
<td></td>
<td>- Nuclear family grouping is the norm for society</td>
</tr>
<tr>
<td>2. Rationalism</td>
<td>- Mind, body, emotions are always separated</td>
</tr>
<tr>
<td></td>
<td>- Expressed emotions are not valued</td>
</tr>
<tr>
<td></td>
<td>- Belief in the physical and tangible most valued</td>
</tr>
<tr>
<td>3. Time</td>
<td>- Often equated with money</td>
</tr>
<tr>
<td></td>
<td>- Precious quantity, therefore time is saved and spent, and one is expected to perform on time</td>
</tr>
<tr>
<td></td>
<td>- Operations within a time-frame most valued</td>
</tr>
<tr>
<td>4. European Aesthetics</td>
<td>- European male and female ideals extracted from art</td>
</tr>
<tr>
<td></td>
<td>- European culture is the norm</td>
</tr>
<tr>
<td></td>
<td>- Other cultures weaken the generic norm</td>
</tr>
<tr>
<td>5. Action Orientation</td>
<td>- Humans control their own destiny and fate</td>
</tr>
<tr>
<td></td>
<td>- People often altered themselves to imitate the Eurocentric models</td>
</tr>
<tr>
<td>6. Universalism</td>
<td>- The best should go to the winner</td>
</tr>
<tr>
<td></td>
<td>- Conquest is highly valued</td>
</tr>
<tr>
<td>7. Competition</td>
<td>- High test scores achievers should get the best of Society’s goods and services</td>
</tr>
<tr>
<td>8. History</td>
<td>- Past events and ideas about white Americans are most highly prized and valued</td>
</tr>
<tr>
<td></td>
<td>- Other cultures’ histories are not important, so little time is needed to recognize them, a week or month is sufficient</td>
</tr>
</tbody>
</table>

### Table 2-4: Cognitive strategies commonly used for information processing

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Activities</th>
</tr>
</thead>
</table>
| **Active Rehearsal** | 1. Use the first letter of a word or sentence to create an acronym to recall  
2. Use a place or series of locations to recall  
3. Use rhymes and tunes to recall  
4. Reduce information to create a brief story paragraph, or sentence to recall  
5. Link facts, events, and persons with a theme or common trait to recall details using notes of reading/writing/saying/ details more than once to memorize |
| **Organizational** | 1. Divide the material into meaningful parts or vital beginning, middle, and sections and categories that reflect the essence of the whole text  
2. Identify hierarchical relationships within the material  
3. Diagram outline the information (charts, tables, figures, etc)  
4. Classify or categorize the material |
| **Elaboration**   | 1. Associate new material with prior knowledge  
2. Form mental images for association generated by the reader  
3. Paraphrase/summarize the text  
4. Create analogies  
5. Create and answer questions about the text  
6. Apply knowledge from the essence of the text  
7. Teach someone else the essence of the text |

(Adapted by permission from the H & H Publishing Company)
<table>
<thead>
<tr>
<th>Stages</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mature Self-Esteem</td>
<td>Has a healthy mind; avoids stereotyped content or complex, contextual distinctions concerning the races; has a deep inner sense of peace and self-satisfaction.</td>
</tr>
<tr>
<td>2. Super Self-Esteem</td>
<td>Is superior in acquiring and possessing effective tools for developing self-worth and self-value traits; a willingness, if necessary, to leave the crowd in order to follow one’s belief or dreams; spends a lot of energy for a job at hand; stays focused; perseveres in the face of great difficulties; works with a sense of urgency, persists to the end, and views failures as opportunities for learning.</td>
</tr>
<tr>
<td>3. Good Self-Esteem</td>
<td>Practices honesty and fair-play regardless of what dishonorable things others do; owns very little because the channeled focus on things of worth creates problems in things of value; values problems that are viewed as tests from God as fitness for redemption tests.</td>
</tr>
<tr>
<td>4. High Self-Esteem</td>
<td>Receives self-confidence from great successes in acquiring money, possessions and power over people; black ghetto street leaders; has problems relating to self-worth.</td>
</tr>
<tr>
<td>5. Normal Self-Esteem</td>
<td>Refers to individual self-worth and self-value traits clustered closely around the average; spends time developing stylish skills particularity in playground sports; has a low-grade dissatisfaction from their actual accomplishments on the dreams and talents.</td>
</tr>
<tr>
<td>6. Low Self-Esteem</td>
<td>Receives personal dissatisfaction from an awareness of falling short of some significant self-determined standard or goals; internalizes failures and negative “self-talk” from the daily message sent by members of society; believes in God sustaining “their sense” of community.</td>
</tr>
<tr>
<td>7. Inferiority Complex</td>
<td>Believes one is a failure as a person; gives self-destructive, personal attack through negative “self-talk”, with a malignant sense of fear, chronic rage against accomplishment of others; has a misguided perception of personal achievement.</td>
</tr>
<tr>
<td>8. Superiority Complex</td>
<td>Has an egotistical persona mask, hiding an inferiority complex, low self-esteem; or has a normal or a high self-esteem masking a temper, chronic anger, frustration, aggression, homophobia, fear etc.</td>
</tr>
<tr>
<td>9. Apathetic Enslaved Minds</td>
<td>Possesses apathy from hopelessness; keeps talents and skills dormant; has the lowest possible level of self-esteem with respect to the “real self” and society-at-large; hopelessness originated from those slave ancestors who, as a result of extreme rage, malignant fear, and ever-present emotional pain, gave up the fight for their self-hood and then exchanged their system of values for those dictated by the captors; takes pride in slavery; accepts superficial pleasures while waiting to die.</td>
</tr>
</tbody>
</table>

CHAPTER 3
THE STUDY

Introduction

Based upon the collective views from the three strands of the review of the literature, “Social Effects on Learning, “Reading for Cognitive Development”, and “Cognitive Processes for Learning”, the researcher chose to conduct an ethnographic case study in an urban elementary school utilizing the epistemology of postmodern, post structuralism (Gubrium & Holstein, 2002, 2003; Moon, 1999). This epistemological research paradigm was chosen because it was conducive for deconstructing the major negative, social effects that thwarted schooling for African Americans in general and African American boys in particular, according to the review of the literature. In fact, postmodern, post structuralists also gave a solution to the problem they deconstructed (Moon, 1999). Simply stated, the intent of the research was to discover the cognitive strategies of some underperforming African American boys when they responded to children’s literature. By so doing, parents, teachers, and teacher educators would better understand how to design mediated, intervening reading comprehension approaches, activities, and language arts programs in order to empower other pupils with similar characteristics that needed to upgrade their learning outcomes (Florida Curriculum Frameworks (1996). In addition, the body of knowledge gleamed from this ethnographic case study would also empower pupils, other than African Americans boys, with similar cognitive strategies for processing information (Weinstein, Woodruff, & Await, 2004). By acquiring better cognitive skills, pupils would develop the mental capacity to master the learning outcomes on the prescribed grade level (Florida Curriculum Framework, 1996) and/or study effectively for academic success for post secondary education settings (Levine, 2002; Weinstein, Woodruff, & Await, 2004).
Although the major social behavior that thwarted learning on African Americans in general was a social problem, the effects were mental (Myrdal, 1996). Therefore, the problem needed to be solved cognitively within the minds of the pupils for academic success (Strickland, 1969). In that vein, the literature revealed that information processing was the most vital skill for academic success (Levine, 2007). In this regard, a pilot study indicated that some rural, high school African American boys lacked the skills for “information processing” from their results on the Learning and Study Strategies Inventory (LASSI-HS). Since there was no LASSI for elementary school pupils, the researcher wanted to know if some underperforming elementary boys in grades 3, 4, and 5 lacked the same skills early on in their language arts classes. To this end, pupils that were identified as underperforming in their language arts classes were recommended for the voluntary, after-school reading program in which the study occurred.

“What kind of cognitive strategies did some underperforming African American boys use for reader response to children’s literature that were equally applicable for studying, learning, and recalling data for academic success?” was the guiding question to the study. To answer the question, the researcher divided the study into seven (7) subtopics for discussion. The first five subtopics, however, drew heavily upon the review of the literature in Chapter 2. The subtopics for discussion were (1) “Ethnographic Case Study”, (2) “Researcher’s Perspective”, (3) Researcher’s Design, (4) “Components of the Design Model, Figure 3-1”, and (5) “Components of the Design Model, Figure 3-2.” In contrast, the other two subtopics’ discussions were tailored to the methodology of the study. Since the community previously had conducted Young Black Males Study, Part 1 (1992) and Part 2 (2003), their findings also influenced the researcher’s methodology. Therefore, certain precautions in the study were discussed in the (6) “Methods of
the Study”, and (7) “Procedures for the Study.” Finally, (8) “Summary: The Study” was included in the chapter because the seven (7) subtopics’ discussions were quite lengthy.

The first discussion of the subtopic “Ethnographic Case Study” below included how the thinking of the interdisciplinary, cross-cultural study, utilizing a postmodern, post structuralist’s epistemological research paradigm, was rather complex to describe because it was a mélange of many disciplines written for practitioners in the field of education.

**Ethnographic Case Study**

Lev Vygotsky’s social developmental theory of intellectual ability and Robert Steinberg’s triarchic theory of the multiple forms of intelligence (Neisser et al., 1996) were used as the theoretical framework for this ethnographic case study. However, the outcome of a pilot study (Welch, Bowie, St. Juste, 2004) documented the need for these theories (See the Appendix ). After administering the *Learning and Study Strategies Inventory-High School Version* (LASSI-HS) (Weinstein & Palmer, 2002) in the pilot study of academically underperforming rural boys in grades 6-12 in 2003, the findings indicated that “information processing” was the greatest academic weakness for some African American boys (Welch, Bowie, & St. Juste, 2004).

Since no similar inventory existed for elementary pupils, the researcher conducted field research about information processing with African American boys in grades 3, 4, and 5 in an urban elementary school that were identified as academic underperformers by their language arts teachers, a guidance counselor, and the Title 1 Director of the Parenting and Counseling Center. Therefore, special attention was paid to the analysis of the third grade participants’ data to determine if they performed according to the K-3 language arts’ skills prescribed by Florida’s Sunshine Standards in the *Florida Curriculum Framework* (1996). By so doing, it gave the researcher a better understanding of why some African American boys needed early mediated learning experiences in language arts that involved cognitive strategies for reader responses,
since K-3 was the first prescribed developmental level (*Florida Curriculum Framework*, 1996) applicable to psychometric and other assessment tests.

Furthermore, in *The Triarchic Mind: A New Theory of Human Intelligence*, Robert Sternberg (1988) illustrated how thought and language (Vygotsky, 1962) were embedded in the culture and influenced the cognitive development of children. Drawing upon Shirley Heath’s (1983) ethnographic study in *Ways with Words: Language, Life, and Work in Communities*, Sternberg explained how pupils’ cognitive development was different because of their sociocultural environment among the three communities (Trackton, Roadville, Gateway) that Heath studied. Robert Sternberg further explained that when these pupils entered school, their approach to learning was remarkably different and that the African American children’s oral tradition and culture were undervalued. In addition, Sternberg (1988) used Heath’s (1989) illustrations to explain cognitively the socialization of intelligence and the role that the schooling process played in the psychological drama. However, Sternberg also believed that individuals ultimately determined the outcome of their academic success by the way they processed information. Therefore, he also explained that information processing was a component of human’s ability and thought (Sternberg, 1977). Consequently, the traditional psychometric tests similar to the *Stanford-Binet* that measured human intelligence (IQ) and psychometrically constructed tests like the Scholastic Achievement Test (SAT) used for selection in admissions to institutions of higher learning were too limited. Sternberg also believed that the tests measured only analytic intelligence (Neisser et al., 1996). In view of his theory, Sternberg (1985) thought a more balanced approach would be more inclusive if practical intelligence and creative intelligence were also considered (Neisser et al., 1996).
Therefore collectively, three major factors influenced the qualitative study. The first influence was the results of a pilot study that indicated information processing as an academic weakness for some African American boys in a rural high school (Welch, Bowie, & St. Juste, 2004). The second influence was Sternberg’s (1977, 1988; Sternberg & Grigoren’s (1999), Weinstein, Woodard, & Await’s (2001, 2004) research and investigations about information processing. The third influence was the acknowledgment of the sociocultural role that formal schooling played in the cognitive development of children (Sternberg, 1988; Vygotsky, 1962) as manifested through their reader responses in general (Rosenblatt, 1968, 1980, 1995) and to multicultural literature (Cai, 2002) in particular.

As an ethnography (Creswell, 1998), the study focused on African American culture as reflected in the elementary boys’ reader responses (Rosenblatt, 1980) to multicultural literature (Cai, 2002). Since the participants were observed in a bounded environment, the qualitative investigation also was a case study (Creswell, 1998). Because of these two outstanding features, the qualitative inquiry was called an ethnographic case study (Baszanger & Dodier, 2002). Moreover, Baszanger and Dodier (2002) explained that a study was ethnographic when the field worker connected the observed facts with the historical and cultural backdrop. On another level, however, this qualitative study also had characteristics of grounded theory, “the most widely known inductive approach” (Hatch, 2002, p. 26). Strauss and Corbin (1998) maintained that in grounded theory the researcher did not begin a project with a perceived theory in mind . . .” (p. 12) because the theory should emanate from the data gathered and analyzed from the entire research process (Hatch, 2002). However, if the research elaborated and extended the existing theory, according to Strauss and Corbin (1998), the researcher also used grounded theory. In summary, Hatch further explained that when qualitative research involved detailed procedures
for generating theories inductively from carefully examined data with a post positivist paradigm, it was considered “grounded theory” (Hatch, 2002, p. 26).

John Creswell (1998) used a more traditional definition for a grounded theory study. For instance, Creswell wrote, “The intent of a grounded theory study . . . [was] to generate or discover a theory, an abstract analytical schema of a phenomenon” (pp.55-56). Since African American boys, in general, performed less well on psychometrically constructed tests (modeled after IQ tests) to measure their academic performance, this study intended to discover how they processed prior information to generate cognitive strategies when responding to children’s literature applicable to psychometric and other assessment tests. Such a discovery would give specific directions for strengthening this targeted group’s cognitive development through schooling (Cai, 2002). According to the Task Force established by the Board of Scientific Affairs (BSA) of the American Psychological Association (APA) 1996’s Task Force’s report, the specific aspects of schooling critical to the development of intelligence were unknown facts in the field of psychology (Neisser et al., 1996). Among the “unknowns”, the Task Force concluded that there was no easy theoretical interpretation for the overall pattern to explain the measured correlation of information-processing speed and psychometric intelligence, especially since there was no “one” definition for intelligence (Neisser et al., 1996). The most chilling revelation, germane to this study, was that of not knowing what aspects of schooling were critical to cognitive development (Neisser et al., 1996), since these three “unknowns” were related to the purpose of this qualitative study. This qualitative study also involved social history, cultural anthropology, cognitive psychology, neurology, literacy, and pedagogy. Therefore, the ethnographic case study (Baszanger & Dodier, 2002; Creswell, 1998) was best suited for documenting a complex
behavior such as human information-processing techniques to generate cognitive strategies (Neisser et al, 1996; Willis, 2006, 2007). Although it was well documented in the literature that the cognitive strategies that were conducive for academic settings (Levine, 2007), few studies indicated which cognitive strategies that underperforming African American boys used to create reader responses to multicultural literature (Cai, 2002). Because of the interdisciplinary approach, the ethnographic case study with a postmodern, poststructuralist’s epistemological paradigm was chosen for creating the research design (See Figures 3-1 and 3-2).

According to Brian Moon’s (1999) post structural theory, as a literary term, argued that cultures created standards, with the major producers being “the state, the family, the educational systems, the church, [and] the media . . . ” (p. 119). As social institutions, they shaped thoughts and behavior and determined what was perceived as “truth” and “knowledge” that often worked for the dominant culture and against others (Moon, 1999). Often times, neither group was consciously aware of the unequal dynamics. However, when a reader looked at texts for the cultural enforcer (Ogbu & Stern, 2001) to create a more equal society, the process was called “deconstruction” (Moon, 1999).

With reference to an educational philosophy, post structionalism and deconstruction were synonymous with social reconstructionism epistemology since both had similar traits and addressed social problems of the modern era (Webb, Metha, & Jordan, 2000). Their curriculum included, in part, critical literacy, cultural pluralism, and the politics of change (Webb, Metha, & Jordan, 2000). All of these approaches pointed out the major difference from the structuralists that often explained the causes of the inequality. However, the post structuralists took an additional measure and proposed a remedy. Therefore, the epistemological terms “post structionalism” and social reconstructionism were often used interchangeably. For example, the
“social reconstructionists’ assessment methods included group activities, portfolios that demonstrated learning, critical thinking, cooperative learning, and action research in education research. The post structuralists also used the same kind of assessments (Webb, Metha, & Jordan, 2000). For example, Paulo Freire was a leading educational or pedagogical proponent of the social reconstructionists’ thought, along with Henry Giroux, Jacques Derrida, and Michael Foucault (Webb, Metha, & Jordan, 2000). According to Webb, Metha, and Jordan (2000), Freire believed pupils “. . . should not be manipulated or controlled but should be involved in their own learning” (p. 121). Because of this broad pedagogical approach, Paulo Freire embraced postmodern, post structuralist’s thought (Webb, Metha, & Jordan, 2000). In addition, he also embraced the epistemological meaning of constructivism that referred to “. . . the meaning-making activity of the individual mind” (Crotty, 1998, p. 58), which was highly valued in the postmodern era. Rosenblatt (1968) called Freire’s meaning-making activity idea a reader response, while the psychologists called the same act cognitive strategies (Weinstein, Woodruff, Await, 2004; Sternberg, 2000). Since these epistemological terms were just emerging into the research literature for the twenty-first century after the death of Freire, they were often used interchangeably in solving postmodern problems (Gubrium & Holstein, 2003).

Collectively, the integrated, ethnographic case study grounded in the theories of Lev Vygotsky’s developmental theory of intellectual ability and Robert Steinberg’s triarchic theory of the multiple forms of intelligence (Neisser et al., 1996) was also best suited for studying members of a subculture (Baszanger & Dodier, 2002). In addition, the ethnographic case study was more suitable for documenting the complex internal makings of a small group of underperforming African American boys’ reader responses to discover how they processed the information from multicultural literature (Cai, 2002; Jensen, 2005). In addition, since it was well
documented that negative social effects that involved stress hindered the way pupils learned, the postmodern, epistemological paradigm for post structuralism framed the study and the researcher’s perspective as discussed in the next section.

**Researcher’s Perspective**

Even with the post structuralists’ and structuralists’ efforts to deconstruct the two-tiered education system that created a cheap source of labor, the African American masses in a segregated, stratified subculture did not overcome quickly the psychological barriers of slavery and low expectations (Lynch, 1712; Ogbu, 2003). Nevertheless, in a high-technological society all citizens were required to achieve literacy (Allington, 2006) even though some cultures valued more highly orality (Heath, 1983). Thus, African American boys were no exceptions (Allington, 2006; Tatum, 2005). They needed to learn how to master literacy in order to perform at a higher level of proficiency on psychometrically constructed achievement tests to demonstrate required educational outcomes (Sternberg, 2000; Tatum, 2005). Since all humans had the same biological faculties for thought and language (John-Steiner, 1997; Vygotsky, 1962), if underperforming African American boys’ ineffective cognitive strategies were discovered (Weinstein, 2003), experienced readers would be able to help them to overcome the deficiencies through mediated learning experiences (MLE) (Feurstein, 1980; Sternberg, 1988, 1992; Weinstein, 2003).

As a member of and participant in the African American culture in the community with experiences in anthropological field research in Africa (Welch, 1974), teacher of language arts and English in secondary and post-secondary schools and universities, as well as a contract consultant for the State of Florida Department of Education (DOE) to help administrators and teachers to align their curriculum with the *Florida Curriculum Framework: Language Arts* (1996), the researcher drew upon a plethora of knowledge about the nature of this integrated ethnographic qualitative study. Creswell (1998) noted that when researchers observed subjects in
ethnographies, they were a part of the study as “participant observers.” Creswell then defined participant observation as being ‘... immersed in the day-to-day lives of the people or through one-on-one interviews with members of the group” (p. 58). Living in the community with the participants of the study and participating in their literature circles in the after-school book club made the definition quite applicable for this ethnographic case study.

A socio-historical background of the researcher’s perspective for this study would best be described by recalling her first-year experience of teaching English to grade 7 classes in one of Pinellas County Florida’s all-black junior high schools. In the English Department’s first meeting, the teachers received their class rosters with the announcement that all of the classes were grouped according to similar Stanine scores from the Stanford Achievement Test and that there was one set of literature books for five classes with grammar books for each pupil. Nothing else was said about classes or instruction. The researcher’s five classes consisted of a range: one class of pupils with 7’s and 8’s Stanines, three classes of 6’s and 5’s, and one class with 1’s and 2’s. At the end of the meeting, contact was made with the counselor for an old Stanford Achievement Test. After explaining that the test would be used to construct the curriculum, the counselor understood the situation of being a novice teacher and granted the request. The language arts section of the test was then analyzed to determine the core content knowledge being tested (Hirsch, Jr., 2003, 2006).

Each pupil was given a copy of the curriculum with an emphasis on a mandatory requirement that only Standard English would be spoken in all classroom dialogue, literature discussions, and compositions (Baugh, 2000; Delpit, 1995). For homework each night, pupils were also required to respond to a reading selection of choice for a written composition of choice (unless instructed otherwise). They were assessed and given a fractional grade with the
emphasis being on the bottom grade to reflect the content, form, style (semantics and syntax), and the complexity of the reading selection. However occasionally, readings were in common for discussing in a group and learning how to analyze literature. But, the top grade indicated what needed to be learned about grammar and conversational Standard English (Delpit, 1995). The teacher or the pupil read the best composition to the rest of the class for their classmates’ comments and critique.

Before each grammar lesson, a pretest was given. Based on the pupils’ prior knowledge (Hirsch, Jr., 2003, 2006), the class was divided into three groups. Using the grammar book as a reference, the general concepts were explained to the entire class. Then, pupils worked in groups to reinforce the concept. Sometimes they created competitive games in their groups or the entire class. At the end of the allotted time for group work or games, the entire class took a teacher-constructed posttest using the Stanford Achievement Test’s format. Pupils that scored below 80% were instructed one-on-one by students that scored 100% or with the teacher in the back of the room. Then, the pupils were told to spend some time at home doing the exercises in the grammar book for pupil-teacher assessment, in order to learn the concepts before reading a selection and responding to it in a written composition. The “re-do” exercises were also given a fractional grade and considered at the end of the official grading-period.

Since the pupils in the class came from various feeder elementary schools in the city, their proficiency in language arts based on the Stanford Achievement Test reflected the quality of instruction received in several schools (Bruner, 1996). The test scores of the 7th graders on the Stanford Achievement Test administered each spring in the junior high school, however, showed remarkable gains for some pupils (Dixon-Krauss, 1996; Duffy, 2002). Having only one set of literature books for five classes created an opportunity to be free to choose other texts (Daniels,
2004; Dixon-Krauss, 1996). However, the constant practice of reading literature, writing, and discussing ideas orally in Standard English about subjects, and creating games to re-enforce their learning, the pupils were passionate about reinforcing their newly acquired skills that they learned in their lessons and performed well on the Stanford Achievement Test (Dixon-Krauss, 1996; Irvine & Armento, 2001).

Since the pupils in the class came from various feeder elementary schools in the city, their proficiency in language arts based on the Stanford Achievement Test reflected the quality of instruction received in several schools (Bruner, 1996). The test scores of the 7th graders on the Stanford Achievement Test administered each spring in the junior high school, however, showed remarkable gains for some pupils (Dixon-Krauss, 1996; Duffy, 2002). Having only one set of literature books for five classes created an opportunity to be free to choose other texts (Daniels, 2004; Dixon-Krauss, 1996). However, the constant practice of reading literature, writing in class about literary selections, and discussing ideas orally in Standard English about subjects re-enforced lessons learned. Therefore, the pupils performed well on the Stanford Achievement Test (Dixon-Krauss, 1996; Irvine & Armento, 2001).

Since high-stakes testing was not used in the county, there was no urgent need to determine the specific aspects of the pedagogy that helped the pupils to perform impressively well on the language usage section of the Stanford Achievement Test. However, the same teaching routine was used in grades 8 and 9 in the same black, impoverished junior high school with measurable success (Dixon–Krauss, 1996). Because of their success on psychometrically constructed tests, the researcher wondered why some African American boys underperformed in academic settings for grades 3, 4, and 5 during the era of high-stakes testing in the 2000’s (Welch, Bowie, & St. Juste, 2004). The anecdote summarized above also best described the
researcher’s post structuralist perspective about how to eradicate the achievement gap among the African American boys’ performance on achievement tests in general (Gay, 2004). Consequently, this ethnographic case study grounded in the learning theories of Vygotsky and Sternberg (Neisser et al., 1996) was a conscious, post structuralist’s effort to document the cognitive strategies that some underperforming African American boys were using to process information, so that language arts teachers would understand how to help similar pupils adopt better learning strategies. With a mastery of the appropriate study skills, underperforming pupils would overcome their academic deficiencies (Levine, 2007). Analogous with this perspective, the literature reviewed in Chapter 2, “Review of Literature”, and the pilot study influenced the creation of the researcher’s design as illustrated in Figures 3-1 and 3-2. Since the theory to support the researcher’s design was discussed in detail in Chapter 2, along with the methods and procedures for achieving three levels of thinking shown in Figure 3-1 with Table 2-4: “Cognitive Strategies Commonly Used for Information Processing the explanation of the figures’ symbolic representations of these ideas were merely summarized in the next section called “Researcher’s Design.”

**Researcher’s Design**

David Boote and Penny Beile (2005) argued that “. . . education research must be cumulative; it must build on and learn from prior research and scholarship on the topic” (p. 3). Therefore, Boote and Beile explained that often times” . . . the messy, complicated nature of problems in education . . . ” (p. 3) did not exist in other disciplines. For example, to unravel the “pathological bond” between black and white Americans depicted in Myrdal’s (1966) *An American Dilemma* in 1944, it was necessary for the researcher to review literature across several disciplines and cultures. By so doing, African Americans in general and African American boys in particular would understand how to deconstruct their own caste-like status.
(Ogbu & Stern, 2001). Dorothy Strickland (1969) argued that parents and teachers taught, but pupils were the major stakeholders in the learning process. Hence, they needed to be motivated to learn how to overcome the negative environmental effects on their cognitive abilities for performing successfully in academic settings (Sternberg & Grigorenko, 2001).

As predicted by Boote and Beile, the researcher was faced with analyzing cross-cultural theories and interdisciplinary literature “. . . with the challenge of communicating with a diverse audience” (p. 3) when often times there was no consensus that a “pathological state” existed between the black/white psyches that often manifested certain racial behaviors in the United States. Instead, some of the social and political scientists declared that African Americans were intellectually inferior in order to justify white privileges (Comer, 1969; Einstein, 1971). These views often influenced social policies in schools and universities. In that vein, their research and educational practices and actions supported the social scientists’ racial beliefs of white supremacy and the critical mass of African Americans internalized the negative, racial stereotypes (Poussaint, 1966). Therefore, the educational system in the United States continued to affirm the inferiority myth through tracking (Skrtic, 1995), special education (Mercer & Mercer, 2001), and with the results of psychometrically constructed tests (Comer & Poussaint, 1992). Consequently when schools were desegregated in 1954, most teacher education programs historically consisted only of the educational psychologists’ research grounded in B. F. Skinner’s behaviorism and Jean Piaget’s theory of biological development of human cognition and learning. Therefore, some white teachers were not trained and resisted being trained to address the psychological and pathological effects of slavery and racial segregation influenced by white supremacy that hindered academic success for 90% of the African Americans (John-Steiner, 1977; Tatum, 2005; Torrance, 1999). In contrast, as discussed in the social history discussed in
Chapter 2, the other “Talented Tenth” (10%) of African Americans always existed (Lewis, 2003; Franklin, 2005).

However, the scientists’ research prevailed and further confirmed the idea that racial inferiority was an irrational social construct after they created artificial intelligence in the 1950’s (Newell, 1994, 2002). In the same vein, a legal team with psychologists’ research executed successfully Brown v. Board of Education in 1954 before the Supreme Court (Franklin, 2005). The ruling outlawed racial segregation, and the research grounded in Lev Vygotsky’s theory of sociocultural development of human cognition (Dixon-Krauss, 1996; John-Steiner, 1997; Moll, 2002) flourished. Others psychologists applied cognitive science to educational psychology to understand how “cognitive pluralism” (John-Steiner, 1997) worked to help humans learn, study, and recall information for academic settings (Sternberg, 1977b, 1988; Weinstein, 1988; 2003; Weinstein & Mayer, 1986; Weinstein, Woodruff, & Await, 2001, 2004). Grounded with more than a half of a century of research regarding learning, cognitive psychologists concluded that human intelligence was a complex, neurological phenomenon manifested through thoughts of the mind (Neisser et al., 1996; Willis, 2006). Although the scientific community further exposed the irrational ideas of genetic superiority/inferiority based on skin color (Balter, 2005; Bamshad & Olson, 2003) through experimental DNA research, the necessary apparatus to conduct neurocognitive brain images to confirm the plural brain/mind/thought connections for experimental study were not yet available (Chopra, 1989; Neisser et al., 1996). However, in spite of the limitations involving experimental research of pupils’ thoughts and “strategy-category research” (Wittrock, 1986; Weinstein & Mayer, 1986), Joel Levin and Herrine Marshall (1993) reminded researchers to refrain from avoiding the subject so that “… systematic learning and instructional techniques or methods” (p. 4) would be improved. Therefore, the researcher’s design illustrated
in Figures 3-1 and 3-2 was created from the collective understanding gleamed from the lengthy, cross-cultural review of literature presented in Chapter 2 and summarized briefly above (Viadero, 1998).

As Boote and Beile (2005) forewarned that if a common problem existed and that there was not enough research on the subject to have a canon of shared knowledge across disciples, the review of the literature needed to be “. . . broadened . . . to examine analogous research in other fields or topics” (p. 7). As Boote and Beile (2005) also advised, there were cognitive psychologists’ views regarding how information processing generated cognitive categories (Sternberg, 1988; Weinstein & Mayer, 1986; Wittrock, 1986), which ultimately yielded cognitive strategies for academic learning, as illustrated in Figure 3-1 although most teacher education programs and some literacy studies often ignored the theory (John-Steiner, 1997; Levin & Marshall, 1993; Viadero, 1998).

In an attempt to fill that void, the researcher pursued the challenge and illustrated definitively in Figure 3-1, A Model of the Research Design: Discovery of Strategies for Processing Text and Figure 3-2, Levels of Cognitive Thinking for Academic Learning. The design was created from the results of the Pilot Study and the review of the literature regarding reader response to children literature as discussed in the next section two sections, “Components of the Design Model: Figure 3-1”, “Components of the Design Model: Figure 3-2” and illustrated in “Components of the Design Model: Figure 3-1”.

The components of the researcher’s design illustrated in Figure 3-1 were a combination of four elements. The first element was Mingshui Cai’s (2002) idea of using multicultural literature to “research . . . the cognitive-developmental dimension of reader response . . . [to] discover the strategies [used] to process the text” (p. 155). The second element was Claire
Weinstein, A. L. Woodruff, and C. Await’s (2001, 2004) identification of three major categories for processing texts in an instructional module for college students: active rehearsal strategies, organizational strategies, and elaboration strategies. The third element was Wendy Kasten, Janice Kristo, and Amy McClure’s (2005) adaptations of Louise Rosenblatt’s (1980) transactional response theory for elementary school language arts programs to use questions in to elicit the aesthetic stance from young readers. Finally the fourth element was (4) Robert Steinberg’s (1977, 1984, 1988) theory of information processing for solving problems on psychometrically constructed texts (Vygotsky, 1962, 1978). These influences were integrated for a composite figure as explained in the five sections: “The Venn diagram within the Design”, “The Left Rectangle: the Reader”, “The Right Rectangle to Denote the Readers’ Responses”, “The Small Center Rectangle beneath the Venn Diagram” to denote questions, and “The Horizontal Line to Denote Information Processing. Each of the five sections was discussed in the same order.

**The Venn Diagram within the Design**

The Venn diagram, three overlapping circles, in Figure 3-1 represented the three major strategy-categories used in the thinking process to store memory (Wittrock, 1986; Weinstein, Woodruff, Await, 2001, 2004), in Richard Allington’s (2006) research in reading, and in Gerald Duffy’s (2003) research regarding cognitive strategies for reading comprehension. All of their research affirmed the cognitive psychologists’ identification of the techniques that humans used consciously or subconsciously when processing information for short– or long-term memories depending on the purpose for reading. The complex brain/mind/thought processing phenomena (Chopra, 2001) were explained in much detail in Chapter 2, “Review of the Literature” with each of the major categories’ procedures and techniques outlined in Table 2, “Cognitive Strategies Commonly Used for Information Processing.”
As enumerated in Figure 3-1 and listed in Table 2-4, there were collectively 16 cognitive activities divided among three broad categories (active rehearsal, organizational, and elaboration strategies). Specifically, there were five (5) active rehearsal activities, four (4) organizational strategies, and seven (7) elaborative strategies within the Venn diagram. For example, the top-center circle represented the five (5) active rehearsal activities that included the mnemonic devices and gimmicks a pupil used to store information in the short-term memory. Because the techniques must be repeated several times, the educational psychologists called them “active rehearsal strategies” (Weinstein, Woodruff, & Await, 2001, 2004). The circle positioned slightly to the left represented the four (4) organizational activities, while the circle positioned slightly to the right indicated the seven (7) elaboration activities. The left/right positioned circles represented strategies that pupils learned to store information into what Mel Levine (2002b) called “the hard-drive” or long-term memories. Vera John-Steiner (1997) called these varied strategies involving the long-term memories the fountainhead for creativity or “cognitive pluralism”, while Eric Hirsch, Jr. (2006) merely called them prior experiences and background knowledge. Mel Levin maintained that if children were not taught how to process information into the mind’s “hard-drive”, they would not be successful in recalling information to solve problems presented on standardized tests, while Eric Hirsch, Jr. argued that prior experiences and background knowledge were mandatory for successful academic performance.

Since pupils usually adopted the cognitive strategies’ techniques that worked best for them in different academic environs, Weinstein, Woodruff, and Await (2001) created an inventory to determine pupils’ strengths and weaknesses in using active rehearsal, organizational, and elaboration strategies involving the sixteen (16) activities in Table 2-4. The instrument was called the Learning and Study Strategies Inventory (LASSI) which consisted of
ten (10 assessment areas: attitudes, motivation, time management, anxiety, concentration, information processing, selecting main ideas, study aids, self-testing, and test strategies. Only the information processing subscale of the inventory assessed pupils’ usage of the sixteen (16) cognitive activities for processing information in short- or long-term memories; however, Weinstein, Woodruff, and Await (2004) explained that these particular skills constituted the capstone that pupils needed for successful classroom performance and psychometrically constructed tests (Steinberg, 1977, 1984, 1988). To help pupils to overcome their weaknesses on any of the ten (10) subscales of the inventory’s assessments areas, the authors created ten (10) instructional modules in the LASSI companion series called Becoming a Strategic Learner (Weinstein, Woodruff, & Await, 2004). Both of these instruments were used in the pilot study to determine that African Americans boys performed less well in the area of information processing (Welch, St. Juste, & Bowie, 2004); therefore, they needed to master cognitive strategies applicable for standardized texts and better classroom performance.

The Left Rectangle: The Reader

The left rectangle represented the reader’s interactions with the text and the strategy-categories as illustrated with the arrow pointing right. Frank Smith (1990, 1997) explained what happened behind the eyes as information was received and processed from the printed page while reading. However, Figure 3-1 illustrated the options for the reader’s mind to interact with strategies before choosing the appropriate activity within the chosen cognitive-category depending on the occasion, stance, or habit of processing information from texts during the thinking process (Weinstein, 2003; Weinstein, Woodruff, & Await 2001, 2004; Wittrock, 1986). The arrow pointing left toward the left rectangle represented the reader’s altered thoughts after re-reading the text or was influenced by additional information from environmental stimuli for
additional consideration by one of the cognitive strategies (Weinstein, 2003; Wittrock, 1986; Smith, 1990).

**The Right Rectangle: The Readers’ Responses**

The right rectangle represented the completed processed information through a chosen cognitive strategy manifested in a response to the text (Weinstein, 2003; Weinstein, Woodruff, & Await, 2001, 2004; Wittrock, 1986). Since a reader’s response may be oral or written, the small rectangle above the large right rectangle signified the oral responses while the small rectangle below the large right rectangle represented the written ones. After listening to another reader’s response, reacting to some other external stimuli, or re-reading the text, the reader may alter the original thoughts that generated a response; if that happened, the arrow pointing left toward the three major cognitive strategies’ categories within the Venn diagram showed that the mental processing was repeated or re-considered (Weinstein, 2003; Weinstein, Woodruff, & Await, 2001, 2004; Wittrock, 1986).

**The Small Center Rectangle beneath the Venn Diagram**

The small center rectangle with question marks above and below the word “questions” beneath the Venn diagram represented the questions used to encourage Louise Rosenblatt’s (1980) transactional theory for reader responses adapted for elementary school language arts programs (Kasten, Kristo, McClure, 2005) if the aesthetic stance was not obvious. Even though the aesthetic stance was the reader’s original intent during the mental negotiation for a cognitive strategy, the efferent stance could become the reader’s chosen stance (Rosenblatt, 1980). Rosenblatt further explained the phenomenon in the following remark: “Efferent reading will select out the desired reference and ignore or subordinate the . . . [affective element]. Aesthetic reading, in contrast will fuse the cognitive and affective elements of consciousness — sensations, images, feelings, ideas—into a personality lived through [a] poem or story” (p. 388). In the
statement, Rosenblatt separated systematic or formulistic thinking that adhered to a guided request or question for a correct answer about a poem or a story with the term “cognitive” as opposed to reacting emotionally to an idea in a text (Wittrock, 1986). In addition, according to Rosenblatt (1980), “. . . the reader [selected] . . . the stance [for] any text— [therefore a] newspaper item [could] . . . be read either efferently or aesthetically” (p. 389).

The upward arrow from the small centered rectangle with question marks above the word “question” illustrated that pupils were also asked questions so that the researcher would identify correctly the chosen cognitive strategy for generating the responses in an attempt to clarify any ambiguities (Willis, 2005). The downward arrow from the small centered rectangle with question marks beneath the word “question” pointing to the horizontal information-processing line at the bottom of Figure 3-1 demonstrated that verb probing techniques’ questions were asked (Willis, 2005). For three boys, the researcher chose to observe their eye movements to clarify how they processed information during an interview. For the probing one-on-one interviews, appropriate questions were asked from the list in the Appendix. During the interview, the researcher imagined that a boy’s face was like an analog clock with 12 noon being an upward gaze toward the forehead, as the participant talked. If eye movements occurred, the researcher drew arrows pointing in their directions. All other eye movements, depending where there was a fixed gaze like the hour hand on the analog clock’s numbers 3, 6, and 9, arrows were drawn. From these introspective notes and drawings, the researcher made assumptions about the three boys’ cognitive strategies of the brain/mind processes for generating thoughts (John-Steiner, 1997; Restak, 1991, 2006; Willis, 2005). Collectively, the complex brain/mind processes (Restak, 1991, 2006; Willis, 2005) were represented with the horizontal arrow pointing both left and right simultaneously in Figure 3-1.
Gordon Willis (2005) maintained that the techniques of cognitive interviewing embraced the “. . . think-aloud interview and the wide application of the verbal probing techniques” (p. 42). Willis’ rigorous techniques involved six different kinds of questions: comprehension/interpretation probe, paraphrasing, confidence judgment, recall probe, specific probe, and general probe. The verbal probing techniques validated the essence of Claire Weinstein’s (2003) research for cognitive development for effective study skills and learning as well as Kasten, Kristo, and McClure’s (2005) application of Rosenblatt’s (2003) reader response for an elementary school language arts program. However, Willis’ rigor was specifically designed to improve a researcher’s questionnaire-design in order “. . . to study the manner in which the targeted audience [understood], mentally process[ed], and respond[ed] to the materials . . . present[ed] “ (p. 42). His approach also validated Irving Seidman’s (2006) notion that “. . . each word a participant . . . [used reflected] . . . his or her consciousness” (p. 114) because thoughts were encased in the words (John-Steiner, 1997; Sternberg, 1988; Vygotsky 1952, 1978). By using verbal probe techniques, the researcher also made assumptions about the voice, literary/cultural interpretation, and cultural thought patterns of each participant (Eder & Fingerson, 2002) without creating a power imbalance when asking postmodern, poststructuralists’ questions that pointed out a traditional assumption for deconstruction (Fontana, 2002; Gubrium & Holstein, 2003). In lieu of laboratory instruments to record cognitive strategies encased within humans’ thought processes (Neisser et al., 1996), researchers and classroom teachers relied on verbal probing techniques and body language, according to Gordon Willis (2005).

Data from verbal probing were often used to enhance pedagogical assessment enhanced the approaches for cognitive development (Sternberg, 1977). For example, Robert Sternberg
(1988), Michael Pressley and Vera Woloshyn (1995), Vera John-Steiner (1997), Mel Levin (2002), Gerald Duffy (2003), and Eric Hirsch, Jr. (2006) maintained that pupils could be taught how to choose the appropriate cognitive strategy for successful academic performances, providing there were thorough questioning and interactive activities with an experienced reader and learner. During the interactions and “the act of discovery” (Bruner, 1961), pupils learned how to personalize their thinking for choosing the appropriate cognitive strategies (Dixon-Krauss, 1996) for studying and learning.

The horizontal line pointing both left and right symbolized the collective thoughts/mind/brain processes (Chopra, 2001; Willis, 2005; Willis, 2006) that occurred between the reader and the text for generating a reader response represented by the rectangles and the Venn diagram above it (John-Steiner, 1997). These actions occurred continuously, consciously and/or subconsciously, through the reading process (Smith, 1997) and from the environmental stimuli absorbed through the five senses (John-Steiner, 1997).

**The Horizontal Line: Information processing**

Simply stated, the horizontal line as a left/right arrow represented the neural and biological bases of all human intelligence characterized as a brain function (Neisser et al., 1996) called information processing to generate thought (Sternberg, 1977, 1985, 1998, 1996; Sternberg & Subotnik, 2006). From the basic collective thought process, pupils then mentally chose from two additional levels of cognitive thinking to create their reader responses as illustrated and discussed in Figure 3.2. The figure summarized the neural information-processing activities of the cognitive categories into three hierarchical levels in Figure 3-2.

**Components of the Design Model: Figure 3-2**

Figure 3-2, “Levels of Cognitive Thinking for Academic Learning”, summarized the total or general cognitive theory explained in much detail in Chapter 2, “Review of Literature”, and
symbolized in Figure 3-1’s horizontal line pointing simultaneously left and right. The foundation of the cognitive theory emanated from the physical and mechanical scientists’ collaborations with linguists during their creation of artificial intelligence, the computer, so that the machine could be programmed to function as a “word-processor” (Newell, 1994, 2002). In Figure 3-2, the innermost circle labeled information processing symbolized the neural and biological bases of all human intelligence as a brain function (Neisser et al., 1996; Willis, 2006), for the basic level of human cognition. As explained by Vera John-Steiner’s (1997) research, only the basic level of human cognition paralleled the computer’s capabilities of word processing that could be successfully studied in the experimental laboratory while humans explored “. . . short-term memory, perceived and verbal comprehension tasks, and certain kinds of problem-solving” (p. 2.). Special brain-imaging instruments must be further created (Chugan & Phelps, 1990; Neisser et al., 1996). They were needed for observing the neurobiological functions of “thought” in laboratory experimental settings and for explaining the brain cells’ reactions to human emotions. Then, researchers would document why the brain retrieved certain lived experiences triggered from reading a text as “thought (Rosenblatt, 1980, 1989, 1995, 2003). In other words, no machinery had the capability of observing “thoughts”, although scientists assumed that they were stored “somewhere” in the brain cells (Chopra, 2004).

Some practitioners in the areas of social psychology, educational psychology, psychiatry, cognitive psychology, cognitive neuroscience, understood and acknowledged the possibilities of developing higher levels of information processing in school children, but the idea was not widely accepted. For example, data existed from the research of Mamie and Kenneth (1997), the social psychologists; James Comer & Alvin Poussaint (1992), the psychiatrists who researched learning and achievement for African Americans; Michael S.Gazzangia (1996, 2000), the
cognitive psychologist who studied short-and long-term memories in humans; the cognitive
neuroscientists like Richard Restak (1991, 2000); Karl Pribram (1996, 1997); Robert L. Solo
Howard Gardener (1982, 1988), Robert Sternberg (1977, 2000), and most of the classroom
practitioners like Feurstein, Rand, & Rynders (1988); Weinstein, Witrock, Underwood, Schulte,
1983).

In addition, Benjamin Bloom (1956) separated humans’ thinking from machines and
other life forms’ thinking. The higher-level of thinking were represented in Figure 3-2 by the
inner cognitive strategies circle, while the outer circle symbolized Bloom’s highest cognitive
domain that encompassed conscious or subconscious choice of information processing that some
identified as being suitable for academic learning (Sternberg & Grigoren, 1999, 2001; Steinberg

In contrast, Edward Throndike (1984), the behavioral psychologist, acknowledged the
overlapping levels of cognitive thinking, symbolized by circles within each other in Figure 3-2
for information processing and called (the two outer illustrated circles) higher levels of thinking
“heuristic”, while B. F. Skinner (1990) rejected cognitive psychology because it involved
“consciousness” that was unobservable in a laboratory. Therefore, Skinner saw no need to apply
it to his experimental theory of learning for the classroom (Skinner, 2001). Nevertheless,
Michael Pressley and Vera Woloshyn (1995) applied cognitive theory in the classroom and
shared their experiences in Cognitive Strategy Instruction That Really Improves Children’s
Academic Performance. For yielding the best cognitive strategy, Pressley and Woloshyn (1995)
explained that when people registered “. . . information from the environment in their sensory
organs (i.e., the eyes, ears, nose), some of the information [was filtered] out . . . at the sensory level, while the remainder [entered] into the short-term memory [and then was transferred] into the long-term memory” (p. 2). Pressley and Woloshyn (1995) also taught pupils how to think through the information-processing levels for improved academic performance depicted in the researcher’s design illustrated in Figures 3-1 and 3-2. Gerald Duffy (2003) applied cognitive theory to reading comprehension for similar educational outcomes.

Few studies, however, investigated the application of cognitive theory grounded in Lev Vygotsky’s sociocultural approach to cognitive-development for African Americans through information processing (Cai, 2002). Instead, the emphasis was on building self-esteem (Bailey, 2004; Clark & Clark, 1939). For example, the leading husband-wife team of African American psychologists whose research helped to deconstructed de jure segregation in the United States, Mamie Phipps Clark (1939, 1945, 1977) and Kenneth Clark (1939, 1965, 1977) spent their lives as scholar-practitioners trying to help African American children to develop strong self-esteem, indicated in Table 2-5, in order to thwart the negative effects of racial segregation and racism that stunted cognitive development (Jones & Pettigrew, 2005). However, when Mamie’s field research in Clarenton County, SC with 16 children, ages 6 to 9, yielded the same research findings of her earlier research in Washington, DC for the Master’s at Howard University in 1939 and in New York City for the doctorate from Columbia University in 1943, she realized that the pathological problem of racism (Myrdal, 1966) was not regional and restricted to one subculture (Jones & Pettigrew, 2005). Therefore, they both began to work with the society at large. Kenneth worked with educational and civil rights groups, the American Psychological Association, and other civic institutions, while in 1943 Mamie expanded the “. . . Northside Center for Child Development . . . services from testing to psychological consultations for
behavior problems, vocational guidance to adolescents, and parental education in child care “to everyone” (Jones & Pettigrew, 2005, p. 650). Prior, she primarily tested African American children living in New York City for parents who wanted psychological documentation to escape the “tracking” system for classroom assignments in the public schools and to make the appropriate choice for attending one of the many specialized high schools in the City (Jones & Pettigrew, 2005). Although Kenneth published scholarly papers and wrote books, Mamie became a devoted practitioner trying to help solve individuals’ psychological problems for anyone requesting her services without publishing widely the experiences (Jones & Pettigrew, 2005).

In an attempt to fill the void, the researcher’s design, illustrated in Figures 3-1 and 3-2 provided “... a general theoretical research framework” (Poggenpohl & Sato, 2003, p. 2) for the ethnographic case study. The methods and procedures used with the between-participants design (Reis, 2000) to discover the cognitive strategy categories and strategies used for processing children’s literature by seventeen (17) underperforming African Americans boys in an academic setting were discussed in the next sections.

Methods of the Study

When Harry Reis (2000) described the three types of “experimental designs”, he maintained that if the participants engaged in the same activities, setting, or conditions, the design was between-participants. But when subjects were required to participate in more than one activity or condition while others did not, the design was within-participants (Reis, 2000). In contrast, if the design included “at least one between-participant and one within-participant [for an] independent variable ... ” (Reis, 2000, p. 91), it was a mixed-design. Although some educational psychologists often preferred laboratory experiments for their research, the distinction here of the three basic experimental designs should provide evidence to support the
researcher’s qualitative design for an ethnographic case study (Creswell, 1998) for a basic between-participants study in a classroom atmosphere (Denzin & Lincoln, 1994). The design utilized verbal probing techniques for reader responses (Willis, 2005) to discover cognitive strategies used in information processing in lieu of instruments needed for an experimental study in a laboratory yet to be invented and studied (Neisser et al., 1996). Gall and Gall (1999) wrote, “Quantitative researchers typically ignore the study of inner experience” (p. 310). Gall and Gall further noted:

Qualitative researchers, by contrast, view human thoughts and feelings as phenomena worthy of investigation. They have developed research traditions that focus on the thought processes of individuals and on ways that different individuals apprehend and describe their experiences (p. 311).

In that vein, Gall and Gall recognized four qualitative research traditions . . .” that involve[ed] the study of inner experience . . . cognitive psychology, psychology, phenomenology, phenomenography, and life history” (p. 311). However, since 1999 the quantitative researchers in neurology and neuroscience created some basic neural imaging instruments (Restak, 2006; Willis, 2007). Therefore, this ethnographic case study incorporated the qualitative verbal probing technique for cognitive interviewing suggested by Gordon Willis (2005) and drew upon Judy Willis’s (2007, 2007b, 20037c) neuroscience research and educational experience as a practicing classroom teacher in a middle school.

As former editors of the Journal of Educational Psychology, Joel Levin and Hermine Marshall (1993) discussed “laboratory versus classroom research” (pp. 4-5), they maintained that researchers who engaged in psychological studies “even with adequate operationalization and control of variables . . . [needed] to consider how a study’s theoretical rationale and design . . . [would] affect the results” (Levin & Marshall, 1993, p. 4). Levin and Marshal further explained that classroom research in some situations was better than a laboratory study that did “. . . not
provide enough options for students to respond according to perceptions pertinent to more real-world settings” (p. 4). Levin and Marshall also illustrated their points-of-view by citing the problem with research that used “. . . correlates and effects of attributions for success and failure” (p. 4) based on Weiner’s (1979) experimental research involving the theory of motivation for some classroom experiences. Levin and Marshall also argued that some researchers simplified Weiner’s motivation theory and focused only “. . . on four attributions: ability, effort, task, difficulty, and luck [while] other possible attributions . . . to strategy . . . [were] over looked in . . . [the] research” (p. 4). Even some attribution studies that dealt with just one strategy or one task, which was suitable for laboratory experiments, often had insufficient options; therefore, research to include strategy categories were needed (Levin & Marshall 1993). The most compelling rationale for classroom research involving cognitive strategy categories was found in the following Levin and Marshall’s statement:

Moreover, . . . many attribution retraining studies have attempted to shift attributions for failure from low ability to lack of effort, despite the drawbacks of attribution to effort (e. g., What does it mean if someone is trying as hard as she or he can with the same ineffective strategies?) (p. 5).

Therefore, the researcher’s qualitative design was created to focus on identifying cognitive strategy categories and cognitive activities with specific methods for information processing that used various options for responses in a classroom setting in order to simulate “real-world” conditions and perceptions (Levin & Marshall, 1993). However, to address ambiguous or unclear reader responses for discovering cognitive strategies, the researcher used the verbal probing technique (Willis, 2005) by asking a series of questions to elicit a reader response similar to the questions found in the Appendix.

Heath’s (1983) study of literacy development in three different environments that Sternberg’s (1988) triarchic theory encompassed in the discussion of pupils’ academic success
for demonstrating successfully educational outcomes on psychometrically constructed tests were
ground in Lev Vygotsky’s (1962) sociocultural theory of the mind and learning. Research of this
kind was most suitable for a literacy study, according to Vera John-Steiner (1997). Hence, the
qualitative study followed the rigorous methods and procedures suggested for postmodern, post
structuralists’ cognitive interviewing techniques (Denzin & Lincoln, 1994; Gubrium & Holstein,

In order to identify underperforming African Americans boys’ in grades 3, 4, and 5
cognitive strategy categories and cognitive activities that Levin and Marshall (1993) called
“various options”, the ethnographic case study’s methodology included selecting the population,
participants and setting, and the reading selections for data collection and analysis. These five
sections were discussed below.

Selecting the General Population

The Pilot Study used the Learning and Study Strategies Inventory-High School Version
(LASSI-HS) to determine the academic strengths and weaknesses of high school students
enrolled in a research university’s College Out-Reach Program( CROP). All of the CROP after-
school programs’ participants were recommended by the high school’s counselor and/or a
teacher because of a student’s low performance on the Florida Comprehensive Assessment Test
(FCAT) and a below-average cumulative grade point average in a rural high school (Welch,
Bowie, & St. Juste, 2004). According to LASSI-HS, the African American high school males’
results from ten subscales indicated that their most critical weakness was “information
processing”, the most important subscale in the inventory for completing secondary and
postsecondary education (Sternberg, 1988; Weinstein, 1988).

Since Claire Weinstein (1983, 1988) believed information processing was a vital
academic skill, in the early 1980’s, she began creating teaching strategies that were grounded in
cognitive psychology. Later, she and her colleagues created for college students an inventory to
discover their strengths and weaknesses in learning and studying for academic settings. After
using the inventory successfully with incoming freshmen in a Southwestern university,
Weinstein and her colleagues created instructional modules for each of the LASSI’s ten sub-
scales (Weinstein, Woodruff, & Await, 2004). Although Weinstein’s early research about
studying and learning was first shared with parents in a governmentally sponsored study in order
to help children achieve in school elementary (Weinstein, Wittrock, Underwood, & Schulte,
1983), there was no LASSI or LASSI instructional module designed for elementary and middle
Company a version of LASSI for high school students (LASSI-HS) after many years of using
successfully the adult version with at-risk students in several universities.

Similarly, a professor with a research interest in student affairs administration in and
admissions to higher education argued that students were unsuccessful in high school and higher
education because they had not developed, during elementary and secondary schooling or
elsewhere, the productive learning and study skills and habits to meet the demands of academic
rigor (Flower, 2002). Therefore, Flowers (2002) maintained that incoming college freshmen
would find it useful to discover their strengths and weaknesses for learning and study skills for
making the necessary corrections and adjustments for academic success. One of the instruments
Flowers recommended to young student affairs professionals was Learning and Study Strategies
Inventory (LASSI) (Welch, Bowie, & St. Juste, 2004) to monitor at-risk-admissions.

Since there was no companion inventory nor a LASSI instructional module designed for
elementary pupils and the African American males performed less well on the information
subscale of the LASSI during the Pilot Study, the researcher chose to conduct field research in an
urban elementary, after-school reading program in order to discover how some underperforming African American boys in language arts were using cognitive activities and strategies for processing literature, a vital skill for successful academic performance (Sternberg, 1988). In fact, Sternberg (1988) argued that individuals ultimately determined the outcome of their academic success by the way they processed information. Hence, an elementary school in the Duval County Public District, a large urban school district, was chosen for doing the field research.

Selecting a Specific Population

The City of Jacksonville’s general population of more than 860,000 million people was chosen for the ethnographic case study because it had a below-average literacy rate for both blacks and whites adults (U. S. Bureau of Census, 2000) with more than twelve low-performing schools in 2003 (FL DOE, 2003). However, the African American students had the highest level of underperformance in literacy. The Jacksonville Community Council, Inc. (JCCI) said, “Of the 38,332 Duval County students who failed to read at grade level in the 2003 school year, 35 percent were white, 57 percent were black, and seven percent were Hispanic or Asian” (p. 3). In addition, the large metropolitan’s urban center, approximately 80 miles northeast of the University of Florida’s main campus, often served as a medical research center for other inquiry projects involving national urban subjects. Consequently, the population was accessible with participants and conducive for the ethnographic case study of children living in high-poverty and plagued with a very low-literacy environment (Heath, 1983; McGill-Franzen, Lanford, & Adams, 2003; Tatum, 2005). In addition, the community was densely populated and similar to other national areas in the United States that also lagged behind in educational attainment (Tatum, 2005; Williams, 2006).
In 2004, the Duval County Public School District (DCPSC) was the 19th largest in the United States with approximately 130,000 students with 165 schools located in Northeast Florida (DCPS Research Data, 2004). Undergoing school reform, Jacksonville already had the administrative infrastructure with allocated resources at the District level working with Title 1 parents and an after-school reading program for girls (Welch, 2003). In addition, there was a non-partisan civic organization of diverse citizens in the community that had also conducted two studies that identified the general environmental indicators that had effects on pupils’ learning in the urban core schools (JCCI, 1992, 2004). The first study was “Young Black Males: A Report to the Citizens of Jacksonville” in 1992, while the second study was “Public Education Reform, (Phase Two) “Eliminating the Achievement Gap: A Report to the Citizens of Jacksonville” in 2004.

In brief, the Jacksonville Community Council Inc. (JCCI) launched the “Young Black Males Study” for the following reasons:

[1] to discover why a disproportionate number of young black males in Jacksonville, ages 25 and under, [were] failing to survive and thrive, and [2] to suggest ways in which all segments of the community [could] be a part of the solution to the problem (JCCI, 1992, p. 1).

JCCI’s (2004) analytical approach was to focus on three interconnected issues, two of which were directly connected to this ethnographic case study about African American boys’ underperformance in school. Those issues were identified as:

[1] *underlying public issues* such as established patterns of racism, desegregation, the lack of economic security, pervasive crime and violence, the lack of adequate infrastructure in black neighborhoods, and America’s changing moral and ethical values;

[2] *underlying issues specific to the black community* such as changes in the family, the church, the schools, and the neighborhood; [and]

[3] *dysfunctional individual behavior* such as involvement with crime and drugs (p. 1).
The JCCI (1992) study’s findings revealed some of the problems about race relation that were analogous to the pathological behavior that Gunnar Myrdal cited in 1944 for his conclusion in the volumes, *An American Dilemma* (1966). According to JCCI (1992), some of the behavior affected the African American children’s cognitive development and learning in school, as discussed in Chapter 2, “Review of Literature.”

Therefore, it seemed appropriate to chose the Jacksonville Public School District because of its large, urban African American community with the concentration of political, economic, and sociocultural problems (JCCI, 1992; Tatum, 2005; Williams, 2006) common for school-reform in the South after *Brown* (Thernstrom & Thernstrom, 2003). For example, JCCI (1992) noted that the term “desegregation” was a part of the City’s underlying public issue. Although “. . . in 1991, 62 percent of the whites and 72 percent of the non-whites indicated that racism was a problem” (JCCI, 1992, p. 3), the community chose to “desegregate” rather than to “integrate” and to solve the racial issue of inequity. JCCI (1992) explained that to desegregate meant the “. . . dominant culture [would] continue to prevail ‘as is’. Those in the non-dominant culture . . . [were] ‘included’ to the extent that they [were] able to assimilate to the dominant culture” (pp. 3-4) often in a subservient manner. Individuals who were unwillingly or unable to assimilate were considered to be non-conformist, and they were isolated or “. . . excluded from the mainstream” (JCCI, 1992, p. 4). On the other hand, “. . . integration implicitly . . . [added] value to any and all cultures being joined . . . [to the dominant culture] (JCCI, 1992, p. 4). Thus, JCCI (1992) wrote, “The end of legal segregation in Jacksonville did not usher in an era of integration but rather one of desegregation” (p. 4). This approach had a chilling effect on creating a unitary public school system of equity, especially when “many white teachers [were] . . . visibly frightened of their black students, especially males” (JCCI, 1992, p. 4), some eighteen years after
Brown v. Board of Education (JCCI, 1992) when the District Court mandated that Jacksonville’s schools be desegregated in 1972.

The community’s solution to the mandate was busing black children, K-5, to schools in the suburbs, re-assigning teachers throughout the District, and creating magnet schools in some of the predominantly black neighborhoods (JCCI, 1992). Later, “both black and white students’ neighborhoods subject to the court order were bused to 6\textsuperscript{th} and 7\textsuperscript{th} grade centers” (JCCI, 1992, p. 4), while black students were bused to the suburbs for 10\textsuperscript{th}, 11\textsuperscript{th}, and 12\textsuperscript{th} grades (Jacksonville Branch, NAACP v. Duval County School Board, M.D. Fl, App., 1998). Although the Duval County Public School District (DCPSD) was trying to desegregate much like other districts in the South (Thernstrom & Thernstrom, 1997), “. . . integration remained largely a court ruling on paper, while segregation persisted as a reality in society” (Takaki, 1993, p. 402). In some aspects, the DCPSD merely imitated some of the desegregated school districts in the North (Thernstorm & Thernstorm, 1997).

Unlike most school districts, however, the Duval County Public School District (DCPSD) covered 800 square miles of urban, suburban, and rural settings with slightly more than 360 million people (U.S. Bureau Census, 2000), as a result of resistance to the Supreme Court’s mandate to desegregate the schools (JCCI, 2003; Martin, 1993). For example, when the aftermath of the “white-flight” to the suburbs during the 1960’s left the urban core of the original City of Jacksonville with a low-tax base to support public schools and government (JCCI, 2003), the County’s governmental officials refused to provide ample services for the newly arrived “city folks” (Martin, 1993). While the inner city schools decayed with few operational and teaching supplies, all of the high schools in the District were disaccreditated in 1964 (JCCI, 2003). When this occurred, the people voted for consolidated government (Martin, 1993). In the meanwhile,
some inner city schools closed because of declining population from urban renewal, some became magnet schools, while still others operated under capacity (JCCI, 2003b). When the schools in Atlantic Beach, Baldwin, Jacksonville Beach, Neptune Beach, and the original City of Jacksonville, became under the jurisdiction of one governing body for the consolidation charter, the School Board inherited a plethora of problems, especially in reversing years of neglect of the rural schools that were predominately white (JCCI, 2003). Therefore, in order to make the District more manageable, the Board divided the 800 square miles into six regions with each having a regional superintendent and a support staff (JCCI, 2003b).

In this environment of historical change (consolidated government, desegregation, and reaffirmation of the high schools’ accreditation) as well as their more recent performance on standardized, high-stakes tests, African American boys in the inner City struggled to achieve academically (JCCI, 1992). The JCCI’s report in 1992 said, “Young black males . . . [scored] poorly on annual tests administrated by the Duval County School Board” (p. 15) and that the low achievement pattern occurred early in grades K-5” (p. 16). The report also noted that there was a need for intervention and correction because the “. . . pattern of low achievement . . . often continued after high school . . .” (p. 16). In addition, the report revealed, “Failure to achieve in school . . . [perhaps was] the beginning of failure in other areas of life as well” (p. 49) and that “racism [was] a common thread that [wove] through most problems relating to Jacksonville’s young black males, often preventing them from achieving their potential or prospering” (p. 24) (emphasis added). These findings were analogous to the historical social effects on learning discussed in Chapter 2, “Review of Literature.” Therefore, these sociocultural conditions also were analogous with other large urban school districts in the United States that manifested the pathological residue of slavery, white supremacy, and legal segregation (Williams, 2006).
Consequently, the Duval County Public School District (DCPSD) seemed to be most appropriate for the case study’s participants and setting.

**Selecting the Participants and Setting**

In order to serve parents of pupils who received free or reduced lunch under Title 1’s federal funds to overcome some of the socioeconomic problems that impacted negatively on their children’s academic achievement, the Duval County Public School District (DSPSD) established the Title 1 Parent Counseling and Resource Center and located it in Region Six of the District. With the use of the *Florida Assessment Test* (FCAT) as a high-stakes test for grade-level promotion and criteria for high school graduation, the District created the Center to offer services to all parents and to provide additional academic services to students (Welch, 2003). Therefore, the permission to conduct the research about the underperforming African Americans boys’ cognitive strategies in the Jacksonville, Florida was under the jurisdiction of the Title 1 Parent and Counseling and Recourse Center (Welch, 2003).

In the spring of 2003, prior to the pilot study, the researcher contacted the Title 1 Parent Counseling and Resource Center for permission to visit an elementary school classroom with a high percentage of pupils from low-income homes. The Director of the Center, an African American woman who was a former vice principal in an urban elementary school in Jacksonville with degrees in history, library science, and a doctorate in counseling, called a principal of the school she chose who in turn contacted the teacher for the day-long visit. The principal relayed the information to the Center’s Director who then contacted the researcher about the arrangements (Welch, 2003). At that time, the Director suggested arriving at the school in Region Six at 7:00 a.m. to have a chat over breakfast about the detailed nature of the visit and to observe the interactions between parents, pupils, and cafeteria workers as pupils were left at school before their parents went to work (Welch, 2003). At the scheduled breakfast meeting, the
Director of the Title 1 Center informed the researcher that the Principal chose this particular teacher for observation because she had a track record of producing strong first graders and that the class was a K/1 combination. She then requested that an exit interview be shared with her at the end of the day to discuss the results of the three areas (physical environment, instructional context, and social context) of Hemmeter’s et al. (2001) *Assessment of Practices in Early Elementary Classroom* (APEEC) that was used for the classroom observation.

In January of 2004, after the pilot study, the researcher contacted the Title 1 Parent Counseling and Resource Center for permission to conduct field research in a language arts program to discover how underperforming African American boys in grades 3, 4, and 5 processed information when they read children literature. She agreed with the concept because a Jacksonville Community Council, Inc. (JCCI, 1992), study reported “. . . low achievement patterns occurred early in grades K-5 . . . [and that there] was a need for intervention and correction (p. 16). She also stated that the results of the study would be beneficial to the Center. However she did not agree with the observation of the boys in the classroom with their classroom teacher during their regular language arts period. Instead, she proposed an after-school reading program, similar to an existing one for girls, for each Wednesday during February thru May of 2005. When there were early-release days for teacher planning on Wednesday’s twice a month, the after-school reading program was from 1:30 p.m. to 5:30 p.m. since many parents of children receiving Title 1 services voiced concerned about their children being without adult supervision on early-release days for teacher-planning while they worked. On the other Wednesdays in the month, however, the after-school reading program was from 3:00 p.m. to 5:30 p.m. The researcher accepted the Director’s modification. Upon doing so, the Director of the Title 1 Parent Counseling and Resource Center took ownership of the study as a partner and
located the site and setting, (2) named the after-school reading program “Great Boys + Great Readers’ Program”, (3) contacted a principal of the school in Region Six where the initial K/1 observation occurred, (4) contacted the teachers of grades 3, 4, 5 about the research for recommending participants, (5) obtained permission slips from the parents of the recommended boys who wanted to participate, (6) provided a snack to all participants and assisted each pupil with his regular classroom homework, a mandatory activity of the host school, (8) shared records for creating the Institutional Review Board (IRB) Protocol for the University of Florida, and (9) selected the texts for the study along with resources for materials, equipment, and other teaching aids to simulate a language arts classroom.

Seventeen boys returned their signed parental permission slips to participate in the study. All of the participants were enrolled in the same elementary school in Region Six, where the Title 1 Parent Counseling and Resource Center was located. Collectively, the randomly selected participants ranged from 8 to 12 years of age. Specifically, their age-ranges were 8 to 10 years for 3rd graders, 10 to 13 for 4th graders, and 11 to 12 for 5th graders. The reading levels for the boys also were varied, according to their Florida Comprehensive Assessment Test (FCAT) scores. In general, the FCAT reading scores ranged from Levels 1 to 5, with Level 3 being average. Of the participants, one boy had a reading Level 4, four boys had 3’s, five boys had 2’s, and seven boys had 1’s. Most of the boys had attended the school throughout their elementary schooling. In general, they knew each other and were acquainted with the Center’s administrators and their activities. Their urban school in 2005 had an enrollment of 665 with pupils from Pre-K to the 5th grade. Of that number, 83% were African Americans, 8% European Americans, 5% Hispanics, and 4% of mixed heritage, with 82% of the total enrollment receiving free or reduced lunch (www.educationalcentral.org). The Center understood the boys’ academic
background and home environment well through their teachers who recommended them, their personal contact with their parents on the phone or in person about the study, the parents’ responsibility of providing transportation for their child by 6:00 p.m. each Wednesday until the end of the school year. With this background about the participants, the Director of the Center, a former librarian/media specialist, chose the reading selections for the after-school reading program.

Choosing the Reading Selections

In addition to being a librarian/media specialist in an elementary school, the Director of the Title 1 Parent Counseling and Resource Center was trained by the Great Books Foundation as a facilitator for the *Junior Great Books for Elementary School Series* (2004-2005) curriculum. She was also familiar with the various language arts program classrooms’ routine and the participants’ academic performance and background, the Director selected the following stories from the *Junior Great Books for Elementary School* (2004 series):

1. *Thank You M’m am*. Langston Hughes
2. *Allah Will Provide*. A North African folktale as told by Robert Gilstrap and Irene Estabrook
3. *The Fisherman and His Wife*. Brothers Grimm, translated by Lucy Crane
5. *Prot and Krot*. A Polish folktale as told by Agnes Szudek Crane

There was an advantage in using the *Junior Great Books for Elementary School Series* (2004-2005). First, it was a complete interpretive reading, writing, and discussion curriculum. Second, the texts were printed on high quality paper with eye-appealing fonts with black/white drawings or pictures that often illustrated the highlights of the stories. Third, there were audiotapes of the reading selections, along with varied writing activities, including essays and creative writing suggestions. In addition, there was a resource manual with easy to read suggestions for
maintaining a lively discussion for young readers. All of the aids were valuable and useful in simulating an academic setting that was relaxing but engaging for a viable study of interpretive responses.

Although the multiage group had various reading levels, their socioeconomic levels and reading interests were similar. Since the boys’ background also included being reared in a low-literacy environment, when they asked questions about the behavior of characters in the story, the cause and effect of certain actions, or even inquiries about moral issues, the researcher and the Director of the Center read aloud the following reading selections as background information (Hirsch, Jr., 2006) to answer their inquiries for further discussion and enlightenment:

1. Langston Hughes: American Poet. Alice Walker, Paintings by Catherine Decter
   a. Martin Luther King, Jr.
   b. Joe Louis
   c. Malcolm X
4. Excerpts from Reallionaire: The Essential Lessons that Took Me from Assistance to a Millionaire by the Age of 14. Farah Gray
5. The Millionaire Mind (excerpts from “The Success Factors”). Thomas Stanley
7. The Steadfast Tin Soldier. Retold by Marylyn Helmer. Illustrated by Joe Weissmann
8. Disney’s The Hunchback of Notre Dame. Adapted by Justine Korman. Illustrated by Don Williams
11. Start Something: You Can Make a Difference (Foreword). Tiger Woods

In an attempt to model that adults use all kinds of additional books and texts to find the answer to things that they think about even when reading for pleasure (aesthetic reading), the researcher chose longer works and read excerpts from them. For example, to expose the boys also to the reality of life for considering financial wealth as a goal, excerpts were read from Thomas Stanley’s (2000) “The Success Factors” in The Millionaire Mind, and Farah’s Gray’s
Reallionaire: The Essential Lessons that took Me from Assistance to a Millionaire by the Age of 14. The two books were chosen because the boys asked a plethora of questions about acquiring wealth after reading Allah Will Provide (Gilstrap & Estabrook, 2004). After reading and discussing the additional texts, the boys provided realistic ideas to contradict the thinking of the main character in the story. The extended readings gave the boys an opportunity to acquire a broader, comparative background, and context for Allah will Provide (2004).

In summary, the story Allah Will Provide (Gilstrap & Estabrook, 2004) was a North African folktale about Bou Azzana, the hardworking woodcutter who made just enough money from selling wood in the marketplace to support his wife and himself. Since he was getting too old to work, he worried about how they were going to support themselves. One day he stopped working to rest under an olive tree. Suddenly, he saw a coiled viper near him. Afraid of the snake, the man climbed up a tree. Then, he noticed the snake was charming a little bird for his meal as it perched on a limb. Charmed and paralyzed with fear, the bird fell out of the tree, and the snake swallowed it. From this experience, the woodcutter learned how Allah dropped the provision near the snake without it working hard. So, the woodcutter stopped working while vowing not to ever move “an inch” to work again until Allah dropped ample provisions at his feet also. This behavior forced his wife to go into the woods to look for mushrooms to sell in the marketplace; but she found a pot of gold instead. She ran and asked her husband to help her bring the heavy pot of gold home. However, he refused to move. Getting her brothers to help her carry the gold home, she asked her husband to count it. However, he refused to get up. Instead, he told her that he was waiting for Allah to drop the fortune at his feet. Not knowing of her husband’s experience with the snake and the bird, the wife dumped the gold on his head. Thereafter, they lived happily. When visitors came to their home, the woodcutter told the story...
of what happened to him. Then, he asked them why they worked when Allah would provide. Everyone felt the woodcutter was wrong, but they did not contradict him.

_Allah Will Provide_ (Gilstrap & Estabrook, 2004) was a catalyst to discuss the most logical argument to contradict the woodcutter’s thinking, the motives and behavior of the characters. The extended readings afforded different points-of-view. In fact, the story also was used for the boys to think about their innate abilities to acquire financial wealth, morals, character, ambitions, and aspirations for choosing a lucrative occupation as an adult. The additional readings outside of the *Junior Great Books for Elementary School Series* (2004-2005) also gave the researcher additional understanding of how the boys processed information from the stories when they used associative thinking (Willis, 2005) for answering some of the verbal probing questions that were found in the Appendix.

However, some of the additional readings were chosen because of the boys’ interest in events in the community, such as the media hype about the TPC Golf Tournament with Tiger Woods as the 2005 number #1 player with Vijay Singh as the number #2, a resident of one of the exurbanant communities near the Atlantic Ocean. Since both of the golf players were promoted as major winners of the sport, when they interacted in the community during the week of the tournament, the boys wanted to understand why the adults and media were constantly talking about the players and the skills needed for the game. Their interests prompted the Director and the researcher to read aloud to them (1) _Night Golf_ (Miller, 1999), (2) “Introduction” of _Training a Tiger_ (Woods, 1997), and (3) the “Foreword” of _Start Something: You Can Make a Difference_ (Woods, 1997). The three readings were discussed until the boys’ curiosities about the learning of certain skills required for the game were satisfied.
In the same vein, each spring the community hosted a jazz festival. A few of the boys admitted that for their regular language arts classes they made book reports from the school library’s collection about Duke Ellington and Miles Davis during Black History Month, but they knew little about the musical contributions of the Marsalis family. Because of this interest, the researcher and the Director chose to view with the boys Wynton Marsalis’ PBS video about jazz for young children before the researcher read aloud excerpts of his biography, *Wynton Marsalis: Trumpet Genius* (Grouse, 1999). This background information helped the boys to understand and appreciate (Hirsch, Jr., 2006) why the Marsalis family members’ participation was special to jazz enthusiasts in the Jacksonville community during the Jazz Festival. Similarly, the Director of the Title of Parent Counseling and Resource Center chose *Peter Pan* (Barrie, 2003) during the trial of the pop-star, Michael Jackson, to explore the perils of adults not growing up and how to avoid similar situations. In the same vein, the Director chose *The Steadfast Tin Soldier* (Andersen, 1997) and Disney’s *The Hunchback of Notre Dame* (Korman, 1996) for building character and strengthening their self-esteem. To reinforce these traits, the group read about Martin Luther King, Jr., Joe Louis, and Malcolm X (Bolden, 2003), as well as the boys’ suggestions about reading them as references for understanding Walter Dean Myers’ (2000) *Malcolm X: A Fire Burning Brightly*.

The seven (7) reading selections from the *Junior Great Books for Elementary Schools Series* (2004-2005) had recorded readings by professionals, while the researcher read orally all of the excerpted selections aloud to the boys. The twelve (12) additional readings used in the study were copied in color for each boy, while the selections from the *Junior Great Books for Elementary Schools* (2004) series were found in the books for each reader. Since there were never any home assignments for the after-school reading program, each week the Title 1 Parent
and Counseling Resource Center provided copies of the additional reading selections for each boy. The detailed procedures used with the 19 reading selections in the after-school reading program to collect data for making assumptions about seventeen (17) boys’ cognitive strategies for generating reader responses were discussed in the next section, “Procedures for the Study.”

**Procedures for the Study**

Seventeen African American boys’ parents signed informed consent forms for their sons to participate in an after-school reading program called *Great Boys + Great Readers’ Program* for the researcher to study how some underperforming boys processed information when they read children’s literature (IRB, 2005-2006). Since the Director of the Title 1 Parent Counseling and Resource Center in Duval County, Florida chose the participants for the after-school reading program “. . . to be information-rich with respect to the purposes of a qualitative study” (Gall, Borg, & Gall, 1996, p. 231), the researcher considered the participants as a “purpose sample” (Gall, Borg, & Gall, 1996, p. 231) for the specific population according to the standards for random sampling interviewing suggested by Jaber Gubrium and James Holstein (2002, 2003).

Although the Director of the Center relied on the language arts teachers’ criteria for grades 3, 4, and 5 for identifying the boys, the researcher waited until the end of the study to inquire about the participants’ reading levels. At that time, an exit interview with the school’s guidance counselors explained that the Director of the Center requested their office to check all of the recommendations’ cumulative folders and reading levels before giving her approval to alert the parents about the study. At the end of the exit interview with the counselors, they shared each boy’s FCAT (*Florida Comprehension Assessment Test*) reading score. Because all of the boys’ reading scores were not the same, technically as a group, the participants were a “stratified purposeful sampling” (Gall, Borg, & Gall, 1996, p. 233) to represent the specific
population. This fact was considered during the analyses of the readers’ responses by noting in the transcript the grade level of the pupil with the fictional name.

The *Great Boys + Greater Reader’s Program* was held in the Title 1 Parent Counseling and Research Resource Center’s reading laboratory area with a plethora of teaching aids and resources. The boys sat at the four large round tables. At the first meeting, each boy was given a single 8 ½” x 11” heavy sheet of white paper and a black felt pen for writing his name and grade level after folding the sheet lengthwise in order to make a stand-up nametag. Then each boy’s photograph was taken with the researcher’s camera. Although the nametags were left at the Center and used each week, until the researcher learned the name of each participant, two prints of each picture were made, one for the participant and one for the researcher who affixed the photo to a manila folder. In the transcripts, however, fictional names were used to identify their reader responses.

Each individual manila folder was used as a file to keep copies of the data collected, which included (1) tape recordings’ transcripts of oral discussions of stories from large group sessions and small group discussions, (2) written reader responses about four stories, and (3) drawings arrows to note the eye movements of three boys to clarify borderline assumptions from oral and written responses (Seidman, 2006). The collected data were used to make assumptions about the seventeen underperforming African American boys’ thought processes that were considered academic cognitive strategies (Weinstein, Woodruff, Await, 2004). The majority of the data was collected from large group sessions and small discussion groups, which included literature circles, discussion webs, and individual interviews. However, the data from individual interviews using the verbal probing technique (Willis, 2005) were also collected when needed. The details of the data collected from oral reader responses were discussed in the next section.
Data Collection: Oral Reader Responses

All stories were read first in common in a large group setting. Since the participants’ Florida Comprehension Assessment Test (FCAT) reading levels ranged from 1 to 4 with one boy having a level 4, the stories were read aloud or read silently along with the tape recordings of professionals reading the stories from the *Junior Great Book for Elementary School* (2004) series. In addition, the researcher read aloud supplementary texts used for background knowledge (Hirsch, Jr., 2006). In both instances, the boys had individual copies of the readings. However, to ensure that each participant understood the reading selection, the Director of the Title 1 Parent Counseling and Resource Center or the resource teacher led large group sessions to simulate how the language arts teachers in that elementary school approached children’s literature for reader responses and reading comprehension, while the researcher observed the participants, took notes, and tape recorded the large group sessions.

*Large Group Sessions.* The large group sessions provided the settings for reading the selections in common and sharing experiences (Willis, 2007c). These sessions included four activities after reading the story. First, one boy volunteered to state briefly the plot of the story (Sipe, 2000). Second, any vocabulary crucial to the readers’ level of reading for text comprehension of the story was entertained through word study (Tatum, 2005). The Director, the research teacher, or the researcher explained the meaning of the word, or a boy shared his definition of it (Sipe, 2000). When members of the group disagreed, one boy volunteered to reference the word in the dictionary and the definition was read aloud to the group. Then, a boy explained how the word related to the character or action in the story (Sipe, 2000). Third, the plot was reviewed again after the vocabulary study. Fourth, the researcher engaged the participants for the reader responses by asking the first aesthetic question of the eight (8) questions (see the Appendix) that Kaston, Kristo, and McClure (2005) recommended for
eliciting the aesthetic stance, “What did you think about the story?” (p. 77).

While the Director of the Title 1 Parent Counseling and Resource Center or the resource teacher was in charge of the large group’s review, the researcher sat in the rear of the room to observe the frequency of the participants’ reader responses. The researcher also made notes about the speaker, including what some of the other boys were doing while the oral responses were being tape-recorded. The oral recordings were later transcribed in writing that identified each speaker by an assigned pseudonym (Seidman, 2006). Multiple copies of the word-processed transcripts of the oral responses to each story were made. The portion of the transcript that involved a boy’s reader response was placed into his personal folder as a cross reference for the researcher’s analysis (Seidman, 2006). Although the transcripts from the boys’ oral reader responses, during large group sessions provided the majority of the data for analysis, they also participated in small group discussions.

*Small Group Sessions.* The small group discussions included literature circles (Daniels, 2004), discussion webs (Alvermann, 1991) and individual interviews (Creswell, 1998; Gubrium & Holstein, 2000, 2003; Kerlinger, 1993; Willis, 2005) to include a variety of reading activities for sustaining engagement (Willis, 2007c). The data from the Director’s techniques, however, only served as cross references for the written reader responses and the oral reader responses from the large group sessions conducted by the researcher.

For all of the small group discussions, the boys used the three or four available tables so that the Title 1 Director of the Parent and Counseling and Resource Center, her resource teacher, and the researcher served as monitors to keep the boys on task in an orderly fashion. For example in discussion webs (Alvermann, 1991), the boy that raised a controversial question about the story and two other boys who agreed with him became discussion leaders and were
assigned to a table. In the event, there were more than two boys that equally questioned the author’s views or no other questioner, a discussion leader was chosen by members at the tables. The discussion pursued and continued until a consensus was reached. Then, each table reported the consensus for large group discussion, after which the group voted on the consensus or a modified one to resolve the issue. In discussion webs (Alvermann, 1991), the Director of the Title 1 Parent Counseling and Resource Center used the adult monitors to ensure that the boys maintained order, gave boys with different opinions an equal opportunity to speak, and remained on task in an equitable and democratic way. All the discussions were audio taped for analysis.

In contrast, for literature circles (Daniels, 2004), the boys randomly chose to sit at one of the three tables and chose one of their peers to be the discussion leader. The adult monitors served as observers and guides to keep the discussion on task as they ensured proper classroom decorum and behavior. However, when literature outside of the Junior Great Books for Elementary School (2004) series was used as background information and enrichment (Hirsch, Jr., 2006), the adult monitors were the discussion leaders. Hence, the literature circles were more controlled than Daniels (2004) recommended for pupils in book clubs to serve in various roles: connector, vocabulary enhancer, summarizer, and illustrator to assist the discussion leader.

Oral reader responses also included interviews. The individualized sessions were held outside of the reading laboratory (Creswell, 1998; Gubrium & Holstein, 2000, 2003, Kerlinger, 1993; Willis, 2005). The transcripts, however, from these sessions were used to clarify the researcher’s assumptions about some participants’ responses through the verbal probing techniques (Willis, 2005). Although there were fewer transcripts for the written reader responses, they provided concrete evidence for making assumptions about the students’ language arts
proficiencies. The details for collecting the written reader responses were discussed in the next section.

**Data Collection: Written Reader Responses**

Since the after-school reading program was designed to simulate their normal language arts classroom in the school that the participants attended, the Director of the Title 1 Parent Counseling and Resource Center chose the appropriate activities for each reading selection. However, data were collected from written reader responses to four (4) of the seven (7) stories the boys read from the *Junior Great Book for Elementary School* (2004) series. The written exercises were open-ended activities suggested in the series’ manual, with the exception of Langston Hughes’ *Thank You M’am*. However, the researcher wanted to know how the boys related to the detailed socioeconomic conditions in a story by an African American author. Therefore, at the first meeting of the after-school reading program, the Director of the Center read aloud Langston Hughes’ (2004) *Thank You M’am* since there was no professional recording of the story in the *Junior Great Books . . .* (2004) series. Upon the completion of the reading, the researcher asked them to respond in writing to the question, “*What did you think about the story?*” (Kasten, Kristo, & McClure, 2005, p. 77) for twenty minutes in order to collect data about how they processed information to express themselves in written sentences and paragraphs about the story’s social and economic issues. In brief, Hughes’ (2004) story was about a young boy that tried to snatch an old woman’s pocketbook one night in order to buy some popular blue suede shoes. However, the old woman foiled the attempt, took the boy home with her for dinner. During dinner, she lectured to him about his wrong behavior and the possible consequences for it. Then, she gave him the ten dollars and sent him home (Hughes, 2004).

The other written reader responses collected were from were open-ended activities from the *Junior Great Books for Elementary Schools’* (2004) manual designed to help group leaders to
generate lively discussions. For example, the motivational activities for discussion from the boys’ writings included three categories: (1) creative writing for *The Fisherman’s and His Wife* (Grimm, 2004), (2) evaluative writing for *Two Wise Children* (Graves, 2004), and (3) directed notes for *A Game of Catch* (Wilbur, 2004). The *Junior Great Books*’ . . . (2004-2005) manual also recommended for young readers to use these open-ended activities for participation in book clubs (Daniels, 2004).

Judy Willis (2007c) also recommended using written ideas for creating an engaged class-community for shared experiences. Specifically, Willis suggested that pupils use “ . . . the ‘quick write’ for three to five minutes without hesitation about how a new experience made them feel” (pp. 108-109). If they did not think of anything immediately, they were told to write the last word over and over again for inspiration. At the end of the “quick write”, pupils underlined portions of the written text for sharing orally (Willis, 2007). However during this study, pupils were given twenty minutes to write a reader response for sharing. At the end of the discussion, the papers were collected for analysis.

Collectively, the four (4) written reader responses gave the researcher data regarding how the boys processed information for performance in a variety of written activities common to most elementary language arts’ classrooms (*Junior Great Books* . . ., 2004). The data collected from the oral sessions, small group discussions provided transcripts for analysis, along with the written responses, provided concrete evidence for analysis. However, the drawing from the observations of the eye movements to determine how the brain and its neural circuits generated cognitive strategies were introspective, as discussed in the next session.

**Data Collection: Eye Movement Drawings**

The third process used to collect data included eye movement drawings (Payne, 2001) for three boys during the one-on-one interviews to make final decisions about their cognitive
strategies. Ruby Payne (2001) demonstrated in her research how to make drawings of the position of the eyes for making assumptions about how some pupils used their eyes to retrieve ideas while responding orally to classroom teachers. Richard Restak (1991), a neurologist at George Washington University’s Medical Center, explained that “. . . the optic nerve [was] the only extension of the brain that could be directly visualized” (p. 161) without neural imaging.

For example, when Payne (2001) looked at the pupil’s face, she saw it as an analog clock. As the pupil talked, she drew on paper how the eyes shifted to certain positions. According to the eyes’ positions, she estimated if the pupil was recalling information from what once was seen, heard, touched, tasted, or smelled. From the drawings, Payne also estimated about the pupils’ level of understanding of the material discussed. For this study, however, Payne’s technique was modified. Rather than drawing the oval face of the clock, the researcher merely drew an arrow pointing to the imagined numbers positioned on the analog clock without looking away from the speaker.

Although the process was introspective, Richard Restak (1991), a clinical professor of neurology at George Washington University’s Medical Center, further explained that “. . . information processing [was] based on the organization of the brain” (p. 59). Simply stated, the eyes, in part, served as a laser beam to signal certain brain cells (neurons) to function. When the beam activated the neurons in the brain, the functional magnetic resonance imaging (fMRI) instrument was capable of detecting the electrical activity in the brain when subjects were shown pictures or asked questions. When the electromagnetic energy connected through impulses with the neurons in the brain that generated the senses of sound, touch, taste, smell, and emotion the brain further selected the appropriate memories for generating the response (Restak, 2006). However, the electromagnetic process to deliver a written or oral response involved interactions
among a “. . . vast network of . . . two hundred billion neural cells, each connected with anywhere from one thousand to ten thousand other cells, creating the potential for any one cell to influence a distant other [cell] through any number of interviewing connections” (Restak, 1991, p. 39). Restak’s (1991, 2006) research with the fMRI and human cognition, however, confirmed and refined the earlier work on eye movements with other brain imaging instruments used by Stanley Lorens, Jr. and Chester Darrow (1962) at the Chicago, Illinois’ Psycho-physiological Laboratory, and Institute for Juvenile Research. However, the complex neural system needed additional future instrumentation to definitively decipher the workings of the four billions neurons for laboratory research.

Nevertheless, Richard Restak (2006) explained that information processing through the complex retrieval system involving the optic nerves was indeed a complex system and often caused issues for neurologists collecting quantitative and qualitative data. For example, an individual’s oral response could be generated from the left hemisphere of the brain when the fMRI’s results showed there were electromagnetic impulses in the right hemisphere or in the middle part of the brain (Restak, 2006). Restak therefore concluded that the eye movements indicated the individual was not always articulating what he or she visualized or thought. Because of the inconsistencies, Restak (1991) said, “Observing the eye and speculating about . . . [the] observations [were] fascinating. But, . . . [researchers] must not be careless in [their] observations” (p. 163) in making assumptions about what a subject’s cognitive processes for telling the truth about actual thoughts. Heeding Restak’s warnings, no attempt was made to compile data to correspond with each reader response collected from the 17 African American boys in this ethnographic case study.
Consequently, the collection of the eye movement data was sparse and highly selective, using a modified version of Ruby Payne’s (2001) technique of viewing “. . . the human face as a clock” (p. 129). Refining, however, Payne’s method of observing eye movements for non-verbal cues to identify how a pupil stored and retrieved information mentally during oral reader responses, the researcher used the same position for the hour and minute hands when viewing a boy’s face like it was a clock. For example, the researcher noted on paper when a boy talked primarily while his eyes were in 2:10 o’clock position rather than adopting Payne’s two o’clock (2:00) position. Therefore, a simple upward arrow drawn to the right position in the direction where the number “2” was approximately located on the face of an imaginary analog clock was sufficient. Simplifying the noted illustration allowed the researcher to continue observing the boy’s face, while sitting directly in front of him during an interview as some of the questions in the Appendix were asked (Creswell, 1998; Kerlinger, 1993; Payne, 2001).

On the other hand, Payne’s (2001) technique for collecting eye movement data according to three facial zones (visual, auditory, and internal dialogue or feelings) was used in the study because it was analogous to Horowitz’s (1992) representation of consciousness and Newell’s (1994) mode of human processing that was used in creating a computer program for word processing, which was discussed in Chapter 2, “Review of Literature.” For example, when a right-handed boy gazed upward (represented on the face of a clock between 10:50 and 2:10), he was considered visualizing the events in the story (Payne, 2001). But, when a boy’s eyes constantly were positioned downward as he gave an oral reader response in the 8:40 to 4:20 positions on a clock, he was considered expressing his emotions or repeating his internal dialogue about the story (Payne, 2001). In contrast, when a boy’s eyes were fixed in a middle
zone, between the 9:45 and 3:15 range, he was recalling the story’s auditory details (Payne, 2001)

In an effort to determine if the boy’s oral reading response was “remembered” from details in the story or from his “constructed” ideas, the researcher mentally divided the boy’s face into two sides (left and right) with a vertical line between the left and right eye (Payne, 2001; Restak, 2006). If the drawn arrows in handwritten notes pointed correspondingly to the left toward the numbers 7, 8, 9, 10, and 11 positions on the clock, the boy constructed the ideas from the details in the story to generate the oral reader response (Payne, 2001). While all noted arrows pointing to the right for 1, 2, 3, 4, 5, and 6 numbers’ positions on the clock indicated that the boys remembered the details of the story (Payne, 2001). All of the boys in the study were right-handed. Therefore, Payne’s (2001) “constructed side” (the left side of the face) for eye movements and the “remembered side” (the right side of the face) were not reversed for left-handed participants (Payne, 2001; Restak, 2006). The combined observations of the eye movements for the sensory (visual, auditory, and internal dialogue or feelings) notations, along with the left/right hemispheric retrieval for cognitive processing, yielded compound designations when the data was analyzed. For the “visually remembered” an arrow was drawn for the 2:10 position on a clock In contrast, the arrow was drawn for the 11:55 position for the “visually constructed” (Payne, 2001; Restak, 2006).

Collectively, the compiled data for analyses included oral transcriptions of selected stories that were read and discussed. There were only written reader responses about four (4) of the stories. Although eye movements played a minor role in the collection and analyses of data during interviews (Creswell, 1998; Kerlinger, 1993), major emphasis was placed on the written reader response of the first story Thank You M’am, a culturally specific short story (Bishop,
(1992; Cai 2002, 2003) written by Langston Hughes. Since it was the first story, there was less chance for bias. Therefore, the assumptions about the participant’s academic proficiencies as discussed below impacted the findings of this ethnographic study more than the oral reader response.

**Data Analysis: Written Reader Responses**

The written and oral reader responses provided the majority of the analyzed data for making assumptions about the boys’ cognitive strategies, while the eye movements’ data (Groner & Menz, 1980; Knowles, 1991; Witruk, 1982) merely were used as a cross reference to make final decisions about three boys’ cognitive activities and strategies as borderline cases. The four (4) written reader responses were analyzed for surface and deep structures (Bandler & Grinder, 1975). Then, the written reader responses were analyzed comparatively with the standards and benchmarks found in the *Florida Curriculum Framework, Sunshine State Language Arts* (1996). These benchmarks were used in making assumptions about the boys’ language arts’ developmental levels. In addition, the written essays provided ample samples to make assumptions about the boys’ proficiency in expressing themselves according to standard conventions for written compositions (*Florida Curriculum Framework . . .*, 1996), as well as their familiarity with responding to literature (Kaston, Kristo, & McClure, 2005).

Since the participants for the study were randomly chosen for the study, the researcher wanted to determine at the beginning of the study if the boys were underperformers in grades 3, 4, and 5. Immediately after the pupils introduced themselves to the researcher at the first meeting, the Title 1 Director of the Parenting and Counseling Center read aloud Langston Hughes’ (2004) *Thank You M’am*, a culturally specific short story. (Bishop, 1997; Cai, 2002, 2003). After an understanding of the plot, twenty (20) minutes were allowed for responding in writing to the question: “What do you think about this story?” (Kaston, Kristo, & McClure, 2005).
The researcher then issued lined notebook paper for the written reader responses with no other further instructions.

First, each boy’s written reader response for Langston Hughes’ (2004) *Thank You M’am* was grouped according to grade levels. Second, the responses were analyzed to determine if the thoughts were *surface* or *deep structures*, according to Richard Bandler and John Grinder’s (1975) “Meta-Model” criteria for analyzing language. These designations were useful for making assumptions about the boy’s level of cognitive strategy thinking (Weinstein, Woodruff, & Await, 2004) as discussed in Chapter 2, “Review of Literature”, as well as their proficiency in writing (*Florida, Curriculum Framework*, 1996).

Finally, the responses were color-coded by drawing lines under the sentence with orange or purple colored highlighters. The orange colored highlighter was used for underlining the *surface structure* with the purple colored one for the *deep structures* (Bandler & Grinder, 1975). Richard Bandler and John Grinder’s (1975, 1979, 1982) Meta-Model techniques were chosen for analyzing the written reader response because the researchers used psychotherapists’ techniques for making assumptions about cognitive functions influenced by personal emotions and experiences. In addition, the Meta-Model was based on linguistics and language usage analysis for transformational grammar (Bandler & Grinder, 1975). Bandler and Grinder also maintained that when humans communicated a representation of their worldview, they formed complete, linguistic representations of the experiences. Therefore, the expressed thoughts from the nervous system were often unconscious representations of “digital communication” (Bandler & Grinder, 1975, p. 110).

However, the same nervous system that produced language also produced unspoken thoughts (Chopra, 2004). Therefore, Bandler and Grinder (1975) called the semantic meanings
the “Meta-Model” of the individual’s world. Using the transformational grammar model, they merely adopted the linguistics’ technique for analyzing “sentence meanings” and called it the Meta-Model tool for interpreting “. . . unconscious, rule-governed behavior” (Bandler and Grinder, 1975, p. 36). If a statement was vague or ambiguous, it was called a surface structure, while explicitly stated ideas were considered deep structures (Bandler & Grinder, 1975). Most of all, since the language arts teachers taught pupils to write sentences in complete thoughts while adhering to certain grammatical rules for well developed sentences and paragraphs, Bandler and Grinder’s Meta-Model technique for analyzing the boys’ written responses appeared to be most appropriate for this ethnographic case study.

After the boys’ written reader responses, the transcripts were analyzed for surface and deep structures (Bandler & Grinder, 1975). Then, they were compared with the language arts’ standards and benchmarks for writing in the Florida Curriculum Framework: Language Arts (1996). From the comparison, assumptions were made about their academic performance and developmental levels for the study.

Since “. . . the state [held] schools accountable for students’ learning at four developmental levels (grades preK-2, 3-5, 6-8, and 9-12) . . . ” (Florida Curriculum Framework . . . , 1996, p. 4), the boys’ developmental levels’ results from the written responses to Thank You M’am indicated if they were performing according to the Sunshine State Standards and the federal mandate, the No Child Left Behind Act. Specifically, the first developmental level (PreK-2) germane to this study had three benchmarks for writing. Therefore, upon the completion of grade 2, pupils were expected to be able to:

1. make a plan for writing that include[d] a central idea that express[ed] ideas clearly; and related ideas (L.A. B. 1.1.1.);

2. draft and revise simple sentences and passages, stories, letters, and simple explanations that express[ed] ideas clearly; show[ed] an awareness of topic and
Since there were only five (5) third graders in the study, the researcher chose to use for the discussion all of their written responses’ transcripts for Thank You M’am to illustrate that children’s literary habits for academic performance were formed during their first developmental level (JCCI, 1992). Consequently, the researcher made assumptions about the participants’ developmental levels and their proficiencies in language arts prior to analyzing their cognitive activities and strategies for reader responses to children’s literature.

Langston Hughes’s (2004) culturally specific story (Bishop, 1997; Cai, 2002, 2003) Thank You M’am was found in the Great Books Elementary Schools (2004) series. As the story was read aloud, each boy followed along with his book. Immediately after the reading, the Director reviewed the plot and entertained questions to ensure they comprehended the plot. As a culturally specific multicultural story (Bishop, 1997; Cai, 2003), the character’s language and cultural behaviors, along with the author’s cultural imagery, collectively gave a panoramic view of life in an African American ghetto, although their racial identities were not stated. It was assumed that the boys had a prior knowledge of the setting and the dynamics of the story.

There were only two characters in Thank You M’am, a mature woman who lived alone and an undisciplined young boy. In brief, one night Mrs. Luella Bates Washington Jones was walking alone from work. Suddenly, Roger snatched her pocketbook. When the strap broke, he fell. While he was on the ground, she kicked his buttocks before picking him up and shaking him roughly. As Mrs. Jones held Roger with one hand, she made him pick up her pocketbook.
Holding the boy firmly, she continued walking home. Then, she asked him why he tried to take her pocketbook, and why his face was so dirty. Roger explained that there was no one at his house to give him ten dollars to buy a pair of blue suede shoes that he wanted or to give him something to eat. Still holding Roger firmly until she arrived home, Mrs. Jones took him inside and made him wash his face before fixing dinner for both of them. While eating, Mrs. Jones convinced Roger that they had something in common because when she was young she also wanted things that she could not afford to buy. After they finished dinner, she gave Roger the money to buy the shoes he wanted after explaining that stealing was the wrong way to fulfill desires. Then, she led him to the door of her apartment. Her reactions to his behavior were so unexpected that when Roger tried to say “Thank you M’am” his lips moved but the words were inaudible. As he walked to the street, Mrs. Jones closed her door (Great Books Elementary Schools, 2004).

Each boy wrote on provided, lined notebook paper a reader response to the question, “What do you think about this story?” (Kaston, Kristo, & McClure, 2005, p. 77”). Whenever the third grader began a new line, the copied version of the reader responses’ transcript below also began on a new line. All other conventions from the originals were also followed. Although the third grader’s age was identified, an assigned pseudonym was used in the discussion. The underlined portion of the pupil’s text indicated a surface or deep structure.

**Essay 1: Surface structure within a compound-complex sentence**

What I think about is that the story was great and I am so glad that wasn’t me because I don’t steal, I never did I never will not in my hole life (Mark, age 8, 2005).

Since Mark took twenty (20) minutes to place seven ideas into two sentences about a story he enjoyed, he probably thought about many unpleasant experiences in his life connected with persons caught stealing because he said that he was glad he was not Roger, while
sympathizing with him. However, he did not share the details to let the reader know why he
would not make a choice similar to Roger’s. Since Mark chose to justify his reason with a
general, negative statement, his reader response did not reveal the details of his rationale.
Therefore, the idea was a “surface representation” of his thoughts. According to Bandler and
Grinder’s (1975) criteria, Mark’s essay was a surface structure.

Essay 2: No surface or deep structure

I like is Book Because
That man like to right and I like to
right He is ProBoy.
smart He is ProBoy. A vaey thanfol
man He is a ProBoy a good
Drowr (Joseph, age 8, 2005).

Unlike his other classmates, Joseph was unable to write his five ideas in sentences. His ideas,
however, were (1) I enjoyed the story; (2) Langston Hughes liked to write; (3) I also liked to
write; (4) the character Roger was poor; and, (5) the illustrations in the story were excellent that
was expressed with his invented spelling “dowr” for “drawer” (one who draws). At the bottom
of his paper, Joseph drew an abstract of a human face, which illustrated his artistic abilities. In
spite of his artwork, he did not write his experiences clearly in sentences. Obviously, the
character’s economic conditions in the story made impressions upon Joseph, for he repeated: “He
is ProBoy” for “He is a poor boy.” Like Mark, his cognitive developmental level for writing
(Sunshine State Standards Benchmarks . . . , 1996) was below all of his classmates.

Essay 3: Deep structures within complex sentences

I think the story was a good story because the women
tough good maners. What I like about the story was when
she fed the boy who tryed to still her pers but she had
everything in her pers sept for two items but he fel
down.

Why I like the story because the woman had kindness
in her heart (John, age 9, 2005).
As a writer, John knew that he should have a main idea with supporting ideas (*Sunshine State Standards Benchmarks* . . . , 1996). However, John gave only a glimpse into his thinking process to conclude about the moral character of Mrs. Jones’ kindness although he initially said in his opening statement that he admired the manners and strength of women. However, only Mrs. Jones’ moral character was developed in the story. The generalization was beyond the story or the expressed thoughts in the reader response. Consequently, John’s *deep structure* (Bandler & Grinder, 1975) expressed one reason for appreciating the story.

*Essay 4: Two deep structures within complex sentences*

I licked it because it had great details for example like when the author was describing the big large women with the large purses. The reasons why I feel this way is because he makes very very good details. I don’t like when he wrote the woman took the boy inside. Because he already tried to still the woman’s purse so he might try to still some thing else. That’s what I think (Harry, age 9, 2005).

Harry’s reader response had two deep structures (Bandler & Grinder, 1975). His appreciation of Langston Hughes’ descriptive writing tended to suggest he was familiar with responding to literature. However, he ignored standard conventions that were prescribed for second graders to master and did not edit his work (*Sunshine State Standards Benchmarks* . . . , 1996).

*Essay 5: Deep structures*

I think the story was true. I think the old woman once upon a time was a mom. Because she did not ask, “Why are you out this late?” She jus knew he was a bad boy and had no maners. So she toll him to be a good boy and gave him the money after he ate
dinner. That is what I think (Tim, age 9, 2005).

Tim probably learned to write paragraphs using the 5-sentences format often preferred by the FCAT (Florida Comprehensive Assessment Test) for one of its requirements for being promoted to the fourth grade. In addition, Tim probably had a literary appreciation of Hughes’ craft because of his “once upon a time” statement to describe his rationale for thinking the story actually happened in the author’s life. The researcher also assumed that Tim was familiar with stories with the phrase, “once upon a time.” Therefore, when the Director read the story aloud the thought (once upon a time) surfaced in his written statement. Hence, the reader response had an evaluative, *deep structure* (Bandler & Grinder, 1997). The paragraph was well-developed with few conventions’ errors (Sunshine State Standards Benchmarks . . . , 1996).

In summary, the boys’ had three (3) other writing samples: evaluating writing for the Two Wise Children, directed notes for A Game of Catch, and creative writing for The Fisherman and His Wife. Their writing samples reflected similar findings. Consequently, the researcher’s interpretation of the boys’ transcripts using Richard Bandler and John Grinder’s (1975) Meta-Model for *surface* and *deep structures* provided the analyses for the written responses to the culturally specific story (Bishop, 1997; Cai, 2002, 2003), Thank You M’am. The results of the boys’ data provided an insight into their language arts’ proficiency, information processing capabilities, as well as their thinking process for generating the reader response from the contents of the short story. All of their boys’ writings were analyzed using Bandler and Grinder’s Meta-Model theory of *surface* and *deep structures*. The data were most helpful in making assumptions about their oral reader responses as discussed in the next section.

**Data Analysis: Oral Reader Response**

The boys’ written reader responses were used as concrete evidence for making assumptions about information processing while the oral reader responses were more introspective and
speculative. Therefore, the researcher relied on the other researchers’ views about cognition strategies used in information processing. For example, as early as 1933, John Dewey wrote *How to Think* acknowledged the essence of what Louise Rosenblatt’s studied for a doctoral dissertation in 1938 about the role of the reader in making sense of literature (Rosenblatt, 1968, 1995, 1980, 2003). She acknowledged Dewey’s thinking in her work. But, Johnathan Culler (2000) called the interpretative process “reader-oriented criticism” (p. 59) without acknowledging Rosenblatt’s contribution of reader response and literary criticism theory in the 1930’s and 1940’s even though it competed with the New Criticism approach that “… focused attention on the unity or integration of literary works” (Culler, 2000, p. 118). The confluence of exploring the thoughts of the reader with understanding how the reader generated thoughts for the response became of further interest to scholars in a variety of disciplines (i.e. psychology, cognitive psychology, biological science, medicine, anthropology, neuroscience, etc.) other than just literature classes at the university.

Like John Dewey (1933), Jerome Bruner (1956) was interested in understanding how humans generated thought when he wrote *A Study of Thinking*. However, as a psychologist, Bruner’s work focused on the “psychological understanding of humankind: social, experimental, physiological comparative; clinical, [and] developmental” (Miller, 1980, p. vii). Consequently, when Allen Newell (1994) and his colleagues created artificial intelligence for word-processing with the computer, as discussed in Chapter 2, “Review of Literature” Bruner’s work was considered. His interests and efforts also helped to develop the Center for Cognitive Studies at Harvard University and served as its co-director.

In the same vein, Frank Smith (1990) at Harvard University studied and worked at the Center for Cognitive Studies. Later, he wrote *To Think*. While he used the reading process to
explore cognitive activity in *To Think*, Bruner used language to explore how children acquired language in *Child’s Talk* (1983) and *Actual Minds, Possible Worlds* (1986). Since Bruner’s (1990) career in cognitive psychology spanned more than four decades, Claire Weinstein’s (2003) research about cognition strategies included Smith’s and Bruner’s theories. However, Weinstein advanced the application of sixteen (16) cognitive activities in Table 2-4, in order to help students to achieve academically. Smith, Bruner, and Weinstein’s theories, along with her application were discussed in detailed in Chapter 2, “Review of Literature.”

Robert Sternberg (1988) also was interested in using cognitive research to increase academic achievement. His research incorporated prior cognitive psychologists’ theories in addition to Shirley Heath’s (1983) anthropological work to analyze the components of human ability and to explain how schools value certain children’s literacy skills. Sternberg (1977, 1984) advanced the theory of how information processing was the major skill for increasing analogical reasoning and academic success, primarily because one-half of the intelligence test required a proficiency in it. Therefore, he believed that students should be taught the various activities for developing the cognitive skills and strategies. In agreement with Sternberg, Claire Weinstein (2003) was one of the leading educational psychologists to teach cognitive strategies and study-skills to underperforming college freshmen, while Cai (2002, 2003) related cognitive development to multicultural children’s literature and reader response. In contrast, Michael Pressley (1993) and Gerald Duffy (2003) spent more than three decades researching how reading teachers used cognitive strategies in their language arts programs. In addition, Kasten, Kristo, and McClure’s (2005) research demonstrated how to use children’s literature to support reading and language arts in the elementary classroom. With Kasten, Kristo, and McClure’s (2005) suggested activities, teachers solicited reader response for immediate feedback to discover how
information was processed mentally. All of these advocates’ works were discussed in Chapter 2, Review of Literature.”

Using Kasten, Kristo, and McClure’s (2005) aesthetic stance questions for reader response, data was collected and later analyzed according to the three major cognitive strategies’ categories and their activities commonly used for information processing. Weinstein, Woodruff, and Await (2004) maintained that pupils needed to acquire study skills to understand when to use appropriately active rehearsal strategies for processing information into their short-term memories as opposed to triggering their longer-term memories by using organizational and elaboration strategies. However in order to perform well on psychometric tests (SAT, MSAT, LSAT, GRE, etc.), pupils learned during their schooling process how to use elaboration strategies to retrieve information from their longer-term memories for correct answers on multiple-choice tests (Sternberg, 1984; Weinstein, Woodruff, & Await, 2004).

In summary, Claire Weinstein (2003) advanced the theoretical views of Dewey, Bruner, Smith, Sternberg, Pressley, and Duffy by creating an assessment tool to help teachers to teach study skills conducive for academic learning. The assessment tool was called the Learning and Study Strategies Inventory (LASSI) was used in the Pilot Study (Welch, Bowie, St. Juste, 2004) to determine some rural high school African American boys’ academic strengths and weaknesses. However, the activities listed in the Learning and Study Strategies Module’s (Weinstein, Woodruff, & Await, 2004) “Information Processing” sections of the self-improvement instrument for college students were used, along with the benchmarks from the Florida Curriculum Framework . . . (1996), as indicators for the analyses of the boys’ oral reader responses, because the Pilot Study revealed that “information processing” was a weakness for some rural high school African American boys.
Learning and Study Strategies Inventory (LASSI) identified the strengths and weaknesses while the Learning and Study Strategies Module (Weinstein, Woodruff & Await, 2004) instructed how to overcome certain weaknesses with various activities. LASSI inventoried the complex, mental actions of how humans generated a response to information. Weinstein called the complex thought-process “information processing” and divided 16 activities into three categories: (1) active rehearsal strategies, (2) elaboration strategies, and (3) organizational strategies. The categories were illustrated in Figure 3.1 as a Venn diagram illustrated in Table 2-4.

Although Weinstein, Woodruff, and Await’s (2004) three (3) major cognitive strategies’ categories from LASSI were isolated for identifying and developing 16 activities for processing information, all of the skills were not applicable for reading literature (Duffy, 2003) and reader response (Cai, 2002). The applicable cognitive skills pertinent to oral reader response data from various stories were discussed in the next sections.

**Use of active rehearsal strategies**

The name “active rehearsal” referred to repeating certain information several times during concentrated study for short-term memory recall. Only two (2) of Weinstein, Woodruff, and Await’s (2004) five (5) active rehearsal activities were applicable to the reader response data: (1) retelling of the story in a summary and (2) linking details of the story with a theme to recall details. In the written reader response discussed above, Joseph had difficulty in writing what he thought about Langston Hughes’ story *Thank You M’am*, but he had no difficulty in discussing it or the other stories throughout the study. For example, when he was asked to summarize orally *Thank You M’am*, Joseph (age 8, third grade) replied promptly:

Joseph: This ole lady was minding her own business when she was goin’ home, and this punk snatched her pocketbook. He wuz lucky he wun’t shot. But, she took him home and taught him that stealin’ was wrong. When
she gave him the money to buy the sneakers he wanted and put him out of her house, he didn’t know what to say ‘cause he didn’t expect her to treat him nice (2005).

In addition, Joseph had no difficulty in participating in the oral discussion.

Researcher: Joseph, what did you think about the story? (Kasten, Kristo, & McClure, p. 77).

Joseph, age 8: I liked the story (He drew the characters and wrote the title of the story, “A Game of Catch” under the picture, and gave it to the researcher). But it was jus’ too short.

David, age 12: Yah, but it was too short, jus as Joseph said.

Gerald, age 11: Uh, huh. Yah, Monk and Glennie were catching balls when Scho came up to watch. I wanted to know a little more about their game . . . you know . . .

Tony, age 11: He wanted to catch with them, but he didn’t have a glove or nothing.

Researcher: Well, does that remind you of anything in your own experience? (Kasten, Kristo, & McClure, p. 77).

David: Glennie and Monk were in the 7th grade, but what about Scho? How old was Scho?

Researcher: The author did not tell us those facts. Perhaps, the story was trying to emphasize something else. Could you use this story to teach a young child the theme of the story? (Weinstein, Woodruff, & Await, 2004)

David: Naw, not me.

Tony: Monk started throwing the ball to Scho, but then he threw him a bad ball on purpose.

Gerald: Uh, huh. He wanted Scho to miss the ball, but then Scho made a bad throw to Glennie. For some reason, Monk stopped throwing to Scho.

Researcher: Why do you think Scho climbed to the very top of the tree, David?

David: I dunno. The story don’t say.

Tony: Monk said that maybe Scho didn’t want to play catch no more.
David: But, Glennie told Scho to come out of the tree and play catch for a few minutes. But Scho started his ‘trash talking’ about how he controlled them. When Scho fell out the tree, they went home.

Gerald: Man, when he fell, I thought he had broken his arm or something serious.

When the researcher attempted to give the viewpoint of Scho’s feelings of rejection to broaden the discussion with the third and fourth grade boys, the discussion continued about the details of the plot. The fifth grade boys accepted the idea of “rejection” without additional comments, while the other boys just ignored the idea. Since *A Game of Catch* was a story recommended for the second semester of the fifth grade which was the status of Gerald, Tony, and David, the researcher wanted to know how well the three boys made literary connections using elaboration strategies on their grade level. Instead, they used only an active rehearsal activity.

**Use of organizational strategies**

The organizational strategies from the longer-term memory in Table 2-4 (Weinstein, Woodruff, & Await, 2004) involved activities that successful academic students used to arrange information into familiar and/or personalized chunks to aid longer-term memory, especially when they studied texts for standardized tests. Weinstein, Woodruff, and Await (2004) identified four activities for acquiring academic study strategies for longer-term recall helpful for procedural or formative assessments. Therefore, successful academic students (1) arranged information into three meaningful parts (beginning, middle, and end) to highlight the essence of a text, (2) identified the re-arranged hierarchical relationships to emphasize the meaning of a text, (3) created charts, diagrams, or figures to explain the essence of the text, and (4) categorized or classified the material into meaningful parts for application of the information in new situations. Depending on the maturity of a reader, all of these four strategies were applicable to reader response and information processing of literature.
Two stories, *The Brave Little Tailor* (Grimm & Manheim, 2004) and *The Fisherman and His Wife* (Grimm & Crane, 2004) were used to collect data to discover how the boys processed information using organizational strategies that some successful students used. In both of the stories, the main characters’ repeated actions were told in a hierarchical manner with distinct details that were essential to the protagonists’ outcomes. For example, in *The Brave Little Tailor* (Grimm & Manheim, 2004) a series of misunderstandings and fear enabled a cunning tailor to use his bravery and wit to become a king. In contrast, in *The Fisherman and His Wife* (Grimm & Crane, 2004) the fisherman and his wife lived by the seashore in a hut the wife hated. When the fisherman caught an enchanted prince living as a fish, he threw it back into the sea because the fish asked him to do so. In order to be happy, his wife used the generosity of the enchanted prince’s power to grant wishes to upgrade her living conditions. Although the fisherman was content, his wife Alice was not and ordered him to ask the enchanted prince for more and more. The enchanted prince granted five wishes, but when there was a sixth wish, they lost everything. Although the repeated behavior of the characters in both stories were predictable, the series of details in the stories made the plots full of unpredictable actions, therefore careful readers paid attention to the hierarchical details.

However, the boys enjoyed *The Brave Little Tailor* (Grimm & Manheim, 2004). The story was chosen from the first semester, series 3 book in order to determine how carefully the boys read it and organized the details to construct meaning. The researcher, therefore, encouraged reader response from the fourth grade boys in the group first to make additional assumptions about the use of organizational strategies they learned in the third grade.

Dwayne, age 10: You know, it’s hard to kill one fly, but it doesn’t take a lot of strength to kill seven flies with a towel. So, I don’t think the tailor was all that strong.
Brian, age 12: But, in his mind he thought it was a big deal. So, he made a belt to brag about his strength.

Andy, age 10: Uh, huh. But, the people he met misunderstood his belt, and he didn’t try to correct them.

Researcher: Andy, what people? What supporting ideas can you cite to explain why some characters misunderstood the tailor’s action? (Weinstein, Woodruff, & Await, 2004)

Andy: The soldiers in the palace . . . (interrupted by Brian)

Brian, age 12: That’s near the end of the story. What about the beginning? You know, the giant thought he had killed seven men, when the tailor had only killed flies. I believe the tailor wanted to be misunderstood because when the giant challenged him by squeezing water from a stone, the tailor picked up cheese and squeezed it. Then, he pretended to throw stones far away, when it really was a bird that he turned loose. Yep, he tricked the giant.

Jerome, age 10: Why did the giant want to kill the tailor?

Brian: I dunno. Maybe, he was afraid of the tailor. But, the giant invited him to spend the night in his cave. Somehow, the tailor saw when the giant was going to hit him with the lead pipe during the night and escaped by running.

Dwayne: Now, Andy I think that’s when the tailor tried to join the army. He impressed the soldiers too much. They were afraid of him and left the army.

Andy: But, they should’ve welcomed someone like the tailor.

Jerome, age 10: Uh, huh. Yah, but they were thinking about themselves, not about helping the king.

Donald, age 10: Everybody was only thinking about their own skin, and the tailor was the ring leader. Being in the army would have been the best place for the tailor.

Researcher: Donald, you just made a moral statement about the tailor. What clues did you gather from the list of details or meaningful parts of the story that gave you that idea? (Weinstein, Woodruff, & Await, 2004)

Donald, age 10: Well, as a tailor he worked by himself. I thought by being in the army he would be around more people to understand what people actually do to be considered strong.
Frank, age 10: That was only the first part of the story. He was just lucky to do some of
the things in the middle and end of the story.

Researcher: Can you list those things?

Frank: Naw, not without looking in the book.

Researcher: Peter, Cory, Barry, can you share with us your mental pictures of the
details of the rising action, climax, and falling action of the story?

Peter, age 11: What’s uh.. rising action?

Researcher: At the beginning of the story, the author creates actions or situations for
the main character to live through. Then, when the character meets the
greatest obstacle, it usually is the highest point of the story. We call that
moment the climax. The author afterwards solves the created problem(s)
in the falling action before ending the story.

Peter: Naw, because the tailor went through so much. It seems like the he went
from problem to problem. I can’t say where the climax was.

Barry, age 11: Well, when the tailor saved his own life by bragging to frighten the men
that his wife’s father.. you know . . . the old king . . . had sent to kill him . . . (he reads from the book), ‘I killed seven in one go and I have killed
two giants, a unicorn, and a wild boar, so why should I be afraid of the
men hiding behind the door?’ So, that was the falling action. After that, he
lived with his wife in his part of the kingdom as a young king. Look at the
picture, (points to the illustration in the book). They had a child, and they look
like they lived happily ever after. But, in the story, there was no child
(laughter).

Cory, age 11: I wanted to say that the climax was the killing of the unicorn with an axe
after he ducked behind the tree, and the unicorn’s horn became stuck in
the tree. At least, he actually used his strength. All of the other times, he
just tricked ‘em or was lucky.

When the conversation continued with the other boys, the discussion focused primarily about the
major ideas of the plot already discussed in the above transcript with no mention of the tailor’s
bravery as suggested in the title of the story.

The analysis of the fourth grade boys’ transcript did not include the hierarchical details
that created differences between each challenge the tailor endured. Therefore, they overlooked
how brave and persistent the tailor was to accept each challenge to accomplish his goal, while all the other characters expressed fear. For example, the king promised to let the tailor marry his daughter and to give him one-half of the kingdom, if he would kill the two menacing giants. Although the tailor instigated a fight between the giants which resulted in their own deaths, he took the credit for killing them. But, the king feared losing his daughter and his land, so he did not keep his promise. Instead, he gave the tailor the challenge of killing a unicorn. When the tailor did so, the king still did not reward him. Then, the king told the tailor to destroy the wild boar that was devastating the forest. The tailor accepted the challenge and trapped the boar in the chapel. Knowing that he was defeated, the king honored his promise. During the discussion, the boys did not mention the details of the tailor’s feats and his persistence to marry the king’s daughter and become a new king. Instead, one of the boys merely mentioned that the tailor moved from problem to problem.

Another series 3 first semester story, *The Fisherman and His Wife* (Grimm & Crane, 2004), with fewer hierarchical details was used to see if the boys would use organizational strategies to generate reader responses. Yet, the boys’ transcript below did not focus on the hierarchical details’ significance to the main characters’ actions and outcomes.


Andy, age 10: The wife got on my last nerve because . . . (interruption by several speakers). Wait a minute, let me explain.

Joseph, age 8: But, I enjoyed the story (chorus of agreement talking at once).

Researcher: Let Andy finish.

Andy: The fisherman caught.. you know.. the big fish. But it asked to be thrown back into the water because it was really a prince. I mean, the prince wanted to continue living as a fish. The fisherman was good, so he threw him back into the sea. But, Alice his wife was bossy and greedy, and I didn’t like her.
Joseph: Well yeah, but the fisherman’s wife wanted to live in a better home, and she reminded her husband that he forgot to ask the ‘enchanted prince’ for a favor. I like the prince because he was cool and happy that he could swim in the sea all day and yet create anything. So, he gave the fisherman the wishes.

David, age 12: I liked the story, but in a way I agreed with Andy. The wife was greedy. You know, maybe she didn’t know how . . . or she didn’t know what happiness was. She thought if she lived in a cottage instead of a hut everything would be okay.

Brian, age 12: Uh, huh. The fisherman was happy too, but he didn’t try to explain to his wife how to be . . . uh . . . ‘content’ like the story kept saying over and over.

Cory, age 11: Yeah, but that’s no excuse. She should have known better than to keep on asking for bigger and bigger houses. There were only two of them, nobody else. Why did she need to have a stone castle?

Andy: That’s why I thought she was greedy. The fisherman didn’t like asking the prince for things. He was henpecked!

Donald, age 10: You know, you are right. She never thought about how he felt begging for stuff. She didn’t appreciate what he did for her. But, he just kept on going along with her crap.

Gerald, age 11: He was just trying to keep her happy. When she wanted both of them to be king, he said, ‘no’. Then, she wanted to be a king; I just tripped out laughing because girls become queens. But, she wanted to be a king. Men only become kings.

Donald: And, the fisherman asked the prince to make her a king. Now, that was silly because he didn’t try to explain to Alice that the wish was out of line. How, could he be married to a king that was a girl? Shucks.

Dwayne, age 10: Well, the fish was stupid too. Because he gave her the wish including all of the trimmings like a great big palace, soldiers, a throne of gold (laughter from several boys).

Researcher: Why did the author create a woman king?

John, age 11: To show that she was out of control wanting stuff that had nothing to do with living comfortably. She could have been a queen with the same power of a king, so I really don’t know if she knew the difference.
Mark, age 8: When she got tired of being king, she wanted something else . . . be an emperor. I guess he had more power than a king. So, she was not getting stuff to make herself happy. She was after power. That’s what the story said.

Brian: The poor fisherman tired to say ‘no; and she told him she was king so he had to obey her. Yep, she ordered him to go back to the fish. Some women are just like that with their husbands. She made him go back to the enchanted prince (laughs).

Harry, age 8: Naw, he only thought about how silly his wife was. He didn’t stand up to her and tell her that she didn’t know what she wanted. He kept agreeing with her because he didn’t speak up.

David: Uh, huh. After so many wishes, she switched to wanting power. I figured she wanted to be God because she wanted to control the sun and moon.

Andy: That’s what I said earlier; she was too greedy and bossy. Why would she want to control the sun and moon? She ordered her husband around, but now she wants to boss the world. Something was wrong with her (several boys laugh)! An analysis of Joseph’s comments in the transcript above about *The Fisherman’s Wife* Grimm & Crane, 2004) also indicated he was cognitively capable to read and comprehend the story, even though his writing ability was below that of the other participants in the study. His oral comments about the story contained both surface and deep structures (Bandler & Grinder, 1975) although he did not write them in his thoughts about Langston Hughes’ *Thank You M’am.*

Additional transcripts from *The Fisherman’s Wife* (Grimm & Crane, 2004) was not excerpted here because it did not involve organizational strategies. Instead, the boys’ discussion involved a variety of spiritual reasons why the fish could not honor the fisherman’s wife wish of controlling the sun and the moon. However, the religious overtones to explain the enchanted prince’s behavior were beyond the cope of the plot. In contrast, during the discussion the wife’s wishes were not enumerated with a reference to the hierarchical details that determined the couple’s outcome of losing everything because the enchanted prince merely told the fisherman to go home to his “hut” after the sixth wish without giving an explanation about his decision.
Use of elaboration strategies

The elaboration strategies found in Table 2-4 involved recalling information from longer-term memory as discussed in Chapter 2, “The Review of Literature.” When studying new information, most successful students used seven (7) cognitive elaboration activities in Table 2-4 which not only helped them to understand the information processed but also assisted in the storage of details in their longer-term memories (Weinstein, Woodruff, & Await, 2004). Those study skills involved the following activities: (1) association of prior knowledge or experience(s) with the new information, (2) mental pictures that were personalized for instant recall of the text’s meaning, (3) summaries and paraphrases of the new information, (4) analogies of prior knowledge using new information, (5) questions created about the new information with their answers to re-emphasize an understanding of the text, (6) usage of the text’s meaning in new situations, and (7) instruction of the new information to someone else (Weinstein, Woodruff, & Await, 2004). Using elaboration activities as study skills for learning new information also applied to cognitive strategies for generating reader response to literature (Cai, 2002).

Four multicultural stories not included in the Junior Great Books for Elementary School Series (2004-2005) were read for the ethnographic study. They were (1) Malcolm X: A Fire Burning Brightly (Myers, 2000), (2) Night Golf (Miller, 1999), and (3) Portraits of African-American Heroes (Martin Luther King, Jr., Joe Louis, and Malcolm X) (Bolden, 2003), and (4) Langston Hughes: American Poet (Walker, 2002). All of these stories involved social issues that shaped the lives of African Americans in the United States. Therefore, the transcripts from these stories were analyzed for making assumptions about the social effects on learning because African Americans were once denied a formal education and full citizenship as discussed in Chapter 2, “Review of Literature.”
Of the four (4) multicultural stories read for the study that were not a part of the Junior Great Books for Elementary School Series (2004-2005), Night Golf (Miller, 1999) was the boys’ favorite. Although their comments about the story did not reveal a transcript beyond a discussion of the plot using active rehearsal strategies, the story evoked more background questions about the skills required for the game of golf, not about race and racism, in spite of the author’s notes that explained how African Americans were excluded from most golf courses in the United States. However, to satisfy the questions about the skills needed for golf, the researcher read aloud to the group excerpts from Earl Woods’ (1997) Training a Tiger and its Foreword by Tiger Woods. Since the Tournament Players Championship (TPC) golf games were played in the area during the ethnographic study, the presence of Tiger Woods in the community, and the details about his accomplishments in the local newspapers and electronic media helped also to explain the skills of the game. In addition Vijay Singh, originally from a Pacific Island in Fiji, lived in one of the exurbs where the study took place. Singh also was a dominant figure in the local news because he ranked second to Tiger Woods who ranked number #1 for that year. Consequently, there were numerous TV clips viewed for background information of the two men playing the game. Although both players were of African descent, the boys still did not discuss race or how social obstacles challenged African Americans’ opportunities to acquire skills for the game even after being exposed to what was required to be included in the sport as a professional.

In contrast, Walter Dean Myers’ (2000) Malcolm X: A Fire Burning Brightly, evoked discussion about the social effects on learning and one boy (Tim) used elaboration strategies for generating his reader response. His seven comments were numbered as notations in parenthesis
in the transcript below for analytical discussion. Before opening the discussion with the regular question about their thoughts about the story, Tim, the third grader, spoke decisively:

Tim, age 9: The life of Malcolm X is new to me.

(1)

David, age 12: I saw the movie with Denzel Washington playing Malcolm X. But, today I learned from the story more about him as a young person.

Researcher: Maybe we can also read another story about Malcolm’s life (handclapping in the background).

Dwayne, age 10: What about the movie, we could rent it from Blockbuster?

Researcher: The movie is out; but when we finish with the discussion we can read a very short version of his life by another author.

Tim: While reading the story, I realized that Malcolm X and Martin Luther King, Jr., both were 39 years old when they were killed. They both had the same goal also.

(2)

Joseph, age 8: Are you sure?

Cory, age 11: I need to read a short version of Martin Luther King’s, Jr., life also because I didn’t think about him at all.

John, age 9: The two men were so different. Even though their fathers were preachers, their family-lives were so different. Malcolm didn’t go to school like Martin.

Tony, age 11: If he had not listened to his junior high English teacher, maybe he would have finished high school.

Peter, age 11: Naw, you can’t put it all on his teacher. But, the teacher was wrong to tell Malcolm that he should not become a lawyer because he was black. Even during the olden days, there were successful black lawyers. So, in a way, I blame Malcolm too for not trying to do what he wanted.

Tim: My Mom told me to never listen to what other people say when they try to put you down. She even told me a high school counselor once told her not to waste her time and money trying to become a professional. She said it hurt her very bad because she went to a school where most of the students were white.

(3)

Peter: You see that’s what I mean. Your Mom didn’t listen. And, she went on to finish high school, college, and stuff.
Brian, age 12: But, everybody is different. The comment came from his favorite teacher who was white. And, Malcolm believed that white people killed his father. So, he just went to the streets after his Mother lost her mind and had to go to a hospital because of it.

Researcher: Tim mentioned that Malcolm and Martin both had the same goal. What ideas or concepts in the story that can be cited to support a theme of the plot or Malcolm’s personal goal (Weinstein, Woodruff, & Await, 2004)?

Mark, age 8: Malcolm became a preacher like his Dad who wanted black people to be successful in life.

Peter: He blamed white people for keeping black people from being successful, after he joined the Nation of Islam.

Andy, age 10: Yeah, he hated white people because that was all he knew. He thought some white people killed his father because he preached about equality for black people, and his favorite teacher put him down. So, he accepted what the Nation of Islam taught him about them.

Researcher: Tim, what concepts or ideas you had in mind when you mentioned Malcolm and Martin’s goal were the same (Weinstein, Woodruff, & Await, 2004)?

Tim: The story said when Malcolm returned from Mecca, he started a new organization to fight for civil rights. That’s what made me think about Martin Luther King, Jr.

Researcher: We have time to read the shorten autobiography of Malcolm X by the other author. Maybe you can get some additional ideas about the theme. (Bolden’s three-page version of Malcolm’s autobiography was read.)

What do you think about the second story about Malcolm X (Kristen, Kristo, McClure, 2005)?

Frank, age 10: The story was shorter, but I got a better idea why Malcolm moved a lot.

Researcher: Which ideas or concepts shaped your overall impressions about Malcolm’s moral character (Weinstein, Woodruff, & Await, 2004)?

Frank: Well, before he was three years old in Omaha, NE the KKK burned them out, and they went to live on the outskirts of East Lansing, MI. The first story didn’t tell us about the KKK’s burning.

Tim: Uh, huh. Each time Malcolm moved he changed as a person. As a
young boy he fished, hunted rabbits, and boxed to help support the family when they lived in East Lansing. In Boston, he ran numbers, pimped, dealt dope, and robbed people trying to make money. The first story didn’t tell that either.

Researcher: Tim, did these ideas change your theme of Malcolm being a Civil Rights leader (Weinstein, Woodruff, & Awai, 2004)?

Tim: Naw, because when he changed after going to prison he tried to help other black people to learn more about what his father believed. Then when he went to Mecca, he wanted to help white people also through Islam, a religion. He just did it different from Martin Luther King, Jr.

David: You know, the movie didn’t tell about what Malcolm did in prison to learn—like uh . . . a correspondence course and copying pages from the dictionary. The first story said he read a lot of books, but this story told five or six different categories for the books. Heck, it’s like different subjects in college. From the movie and the two stories, I learned something different.

Tim: That’s what I meant about his movements. Going to prison caused Malcolm to change. Each time he moved, he became a different person.

Brian: Yeah, he even changed his name after the major changes in his life. As a hustler he was Big Red. In the Nation of Islam, he was Malcolm X. Then, as a Sunni Muslim he became Malik El-Shabazz. Martin Luther King, Jr. didn’t have to go through all of these changes. When I read the stories, I just didn’t think about King at all. So, like Cory I guess I need to read a shorten version of King’s life too.

Tony: The second story gave the name of Malcolm’s junior high English teacher and even told what he said to Malcolm that hurt him so bad. The teacher actually used the “N” word when he told Malcolm that he shouldn’t want to become a lawyer. To be called a “Nigger” by your favorite teacher was tough. I see why he didn’t want to go back to school. I don’t blame him.

After reading the shorten versions of Martin Luther King’s, Jr. and Joe Louis’ biography by Bolden (2003), the boys continued to discuss the plots of the stories (the two versions of Malcolm X, Martin King Jr., and Joe Louis) without additional usage of the elaboration activities.
An analysis of the transcript above about Malcolm X’s biography revealed that Tim used elaboration activities in a variety of ways: (1) association of prior knowledge with the new information, (2) creation of an analogy, (3) application of new text’s essence with a prior experience, (4) summation of text to explain analogy, (5) statement of facts from two texts to complete a mental image of a character, (6) usage of new information to teach his peers about civil rights activity according to a different social context, and (7) usage of the text’s essence to explain his point-of-view to a group of listeners (Weinstein, Woodruff, & Await, 2004).

Collectively, Tim made seven comments that were sequentially numbered in the transcript above, each of which was an elaboration activity. First of all, he was excited about reading for the first time about Malcolm X because he interrupted the normal routine of waiting for the first question: “What do you think about the story?” (Kristen, Kristo, McClure, 2005, p. 77) and admitted that the information was new to him.

In contrast, David who was older and in the fifth grade had background knowledge (Hirsch, Jr., 2006) of the information from seeing the movie, “Malcolm X.” Yet, he did not use elaboration activities in his reader response. Instead, Tim’s second response revealed that he associated Malcolm’s assassination with Martin Luther King’s Jr., although the group had not read his biography prior. In this third comment, Tim also made an analogy of Malcolm’s experience of having his aspirations of being a lawyer thwarted by a white teacher with his Mother’s experience of being humiliated by a counselor’s racist academic advisement while attending a white high school. The use of the longer-term memories’ experiences was generated in Tim’s first three comments from his own reading comprehension of two biographies.

When Tim made the analogy, both Brian and Tony agreed with Malcolm’s reactions of leaving school. Brian remarked that Malcolm went to the streets because of the racist remark
only when Tim shared how his mother warned him about reacting to racist remarks and rejections. However, when the second story about Malcolm revealed that the racist teacher used the “N” word, Tony then agreed also with Malcolm’s behavior. In contrast, Peter voiced that Malcolm still should have tried to become a lawyer in spite of what the teacher said. These boys’ comments revealed how some African Americans withdrew from positive learning experiences because of racism while others ignored it and succeeded, as discussed in Chapter 2, Review of Literature.” These mixed reactions indicated that racism affected some individuals’ learning abilities in academic settings, while others ignored the non-supported learning environment.

Tim’s usage of the summaries and paraphrases as cognitive activities (Weinstein Woodruff, & Await, 2004) were obvious in his fifth and sixth comments about the second Malcolm X biography (Bolden, 2003). Tim used them to try to explain Bolden’s (2003) viewpoint of Malcolm as a black nationalist by pointing out the different details of the story that were not in Myers’ (2000) rendition. Consequently, it was assumed that in Tim’s mind, he did not separate the character traits of Malcolm as a black nationalist while Martin Luther King, Jr. was an integrationist. In fact, Tim ignored that Bolden wrote: “Integration was not the way, Malcolm proclaimed” (p.65). Therefore, Bolden’s viewpoint gave details about the causes and effects of the Black Nationalist life-style, while giving few details about Malcolm’s life after returning from Mecca. The change of character, however, was obvious in Myers’ biography of Malcolm. As a nine-year old third grader, Tim was unable to make such a critique through critical literacy, but he used the text’s meaning in a new situation (Weinstein, Woodruff, & Await, 2004) with his sixth comment when he explained that Malcolm and Martin Luther King,
Jr. wanted the same social outcomes for people who were discriminated against and denied their human and civil rights, but their tactics were just different.

For a student at Tim’s third grade level and age, his reader response was worthy of note for none of the fifth grade boys used seven (7) cognitive activities commonly used for processing information that successful students often used in their study skills and learning repertoire in Table 2-4 (Weinstein, Woodruff, & Await, 2004). Even after reading Bolden’s (2003) biography of Martin Luther King, Jr. during the ethnographic study as some of the other boys suggested, they did not use elaboration strategies in their reader responses. Tim explained that for a Black History Month project he studied the life of Martin Luther King, Jr., and he found it interesting, as he read the Myer’s biography in the after-school program for the study, that the two men were assassinated when they were 39 years old. Tim’s experience of using new information to make a connection with vicarious experiences in the longer-term memory through reading for pleasure (Cai, 2002, 2003; Rosenblatt, 1968) also was discussed and corroborated in Chapter 2, “Review of Literature” as positive learning experiences for cognitive development.

Data Analysis: Eye Movement Assumptions

While Tim’s experience of demonstrating the use of elaboration strategies, the highest cognitive strategy level, in his reader response about the biography of Malcolm X, three boys’ experiences were in the lower strata of information processing (Levine, 2007). Since two of the boys’ written and oral responses yielded, at best, the lower rung of active rehearsal strategies’ activities involving rote memory (Weinstein, Woodruff, & Await, 2004), the researcher used the observation of all three boys’ eye movements (Payne, 2001) in an one-on-one interview to collect more data for analysis in order to make additional assumptions about their cognitive strategies (Weinstein, Woodruff, & Await, 2004).
Of the three one-on-one interviews, Jose ph, the eight year-old artist, was of special interest because his written responses revealed the inability to write his thoughts in complete sentences. Yet, his oral reader responses were well constructed in complete thoughts. In addition, he often drew cartoons, abstracts, still life pictures, and portraits about the story as reader responses to the literature without being instructed to do so. The other two boys’ written and oral reader responses demonstrated their cognitive activities were borderline cases between active rehearsal and organizational strategies. Therefore, the observations of the three boys’ eye movements were used to make the final assumptions about their cognitive strategies for processing information to generate their reader responses to children literature.

Sitting across from each boy at the table during the one-on-one interview, the researcher drew arrows of his eye movements on unlined paper that rested in her lap under the table as the boy responded to the literature orally and made eye contacts with the researcher (Payne, 2001). At the end of the one-on-one interview, the results of the drawn arrows that indicated positions for the eye movements, while responding to the literature, were tallied for analysis. As the boy spoke, the arrows pointing to the left as if they were pointing to the 7, 8, 9, 10, and 11(11:55) positions on the face of an analog clock were indications, in general, that the boy constructed ideas about the story to generate the oral response (Payne, 2001). However, if some of the arrows pointed upward starting with the 10:50 (10) position and ending with the noon (12) position while the boy spoke, the information was visually constructed. A majority of the arrows pointing to the “constructed side” (the left side of the face while speaking) indicated the boy was creating his feelings through the filter of a real or vicarious experience that a detail in the story caused the brain to retrieve and connect certain neurons for the reader response (Restak, 2006; Willis, 2007c). In contrast, if the majority of the arrows pointed toward the right to the numbers
1, 2, 3, 4, 5, and 6 positions on the face of the analog clock while the boy spoke, he remembered the
details of the story (Payne (2001). The remembered details, however, came either from his reading or listening to the oral responses of others. As Restak’s (2006) research pointed out, there was no way that observation of the eyes would indicate how the information was first obtained or the veracity of what was expressed. Therefore, assumptions based on eye movements’ evidence were introspective at best (Chopra, 2001, 2004; Skinner, 1990). Deepak Chopra (2004) further explained once the information was stored in “. . . the memory centers of the brain, no one . . . ever proved that memory...[was] there. We assume[d] it . . . [was], but how?”(p. 213). In other words, there were no instruments to document through empirical, laboratory the evidence to prove memory existed. Yet, oral and written language communicated past “thoughts” and experiences (Chopra, 2001, 2004).

Judy Willis (2006, 2007c) agreed with Restak (2006) that information was ingested through the five senses into the limbic system in the temporal lobes, sometimes without the individual being aware. However, before the information was stored in the memory circuits, it went through the amygdala (Willis, 2006). Once the information was stored and then retrieved as “a thought”, the neurologists’ discussions ceased. Because thoughts were not observable with instruments like the positron emission tomography (PET scans), functional magnetic resonance imaging (fMRI), and quantitative electroencephalography brain wave monitoring (qEEG) (Willis, 2006), the neurologists accepted the phenomena that the mind and thoughts were different from the brain (Chopra, 2004). Until instruments were capable of analyzing thoughts and thought patterns, the observable eye movements used as laser beams to a particular part of the brain to activate neuronal circuits would also be a techniques for parents, classroom teachers, and scientists to use for making assumptions based on introspective analyses (Chopra, 2004;
In fact without using machinery, the eyes were only the observable extensions of the brain (Restak, 2006).

However, the opposite of the *visually constructed* thoughts, when the eye movements shifted from the 10:50 (10) to noon (12) positions like those on an analog clock while speaking, was the *visually remembered* ideas (Payne, 2001). When the boy’s eye movements vacillated as they generated reader responses between the noon (12) and 2:10 (2) similar to those on the analog clock, he *visually remembered* the details of the story or was describing a previous experience from an imagined or real picture triggered by a detail of the story (Payne, 2001). As expected, the arrows drawn to denote Joseph’s (the artist) eye movements during the 35 minutes one-on-one interview yielded upward left and right arrows that indicated movements for both the *visually remembered* and *visually constructed* details to generate oral reader responses. Yet, he did not write his thoughts in complete sentences with *surface or deep structures* (Bandler & Grinder, 1975). Apparently, he had not yet developed the skill to construct written compositions (Comer & Ben-Avie, 2004). Because of his accuracy of drawing portraits, it indicated that he processed information through his visual memory, the occipital lobes (Willis, 2006). Therefore, it was further assumed that he could use his visual memory to learn a spelling vocabulary for writing (Chall, 1996; Duffy, & Roehler, 1993). In addition, his ability to draw scenes from the story based on his interpretations of the plot also indicated that he used elaboration strategies, the highest form of information processing (Willis, 2006). Therefore, it was further assumed that Joseph could correct the imbalance with the proper reading interventions (Comer & Ben-Avie, 2004).

However, Judy Willis (2006) remarked, “Age 10 . . . [was] much too young to determine anyone’s academic potential . . .” (p. 93). Willis further maintained that “children . . . between
the ages of 6 and 12 . . . [grew] more . . . synapses . . . ” (p. 3) in abundance. The new synapses then made additional pathways to the neuronal circuits for learning additional information (Willis, 2006). Because Joseph was only eight years old in the third grade, it was also assumed that he was mentally capable to acquire the Dolch 1000 spelling vocabulary to construct his thoughts in simple sentences, at least, before moving to the fourth grade (Chall, 1996). Nevertheless, if the imbalance of his writing skills was not corrected, Joseph would be placed in special education (Mercer & Mercer, 2001) since the Florida Comprehension Assessment Test (FCAT) academic assessment in writing and reading demanded a proficiency in both for promotion to the next grade. Unlike his classmate Mark, who was also eight years old in the third grade, wrote a compound-complex sentence with a surface structure (Bandler & Grinder, 1975) and often used organizational cognitive activities in his oral responses. Tim was one year older in the third grade and he demonstrated the ability to use elaboration strategies in his discussion of Malcolm X’s biography and wrote his thoughts in deep structures while using simple, complex, and compound-complex sentences (Bandler & Grinder, 1975). Instead, Joseph’s cognitive activities were borderline active rehearsal and organizational cognitive activities exhibited only in his oral reader responses, while his art indicated he used elaboration activities to process information. The final decision was made to declare that he commonly used organizational cognitive activities without establishing cognitive strategies for reader responses because of his low Level 2 on the FCAT reading group for discussing the findings in Chapter 4.

The other two boys were 11 years old in the fourth grade with a FCAT Level 1 in reading. Their one-on-one interviews were 45 minutes’ sections. The arrows of both boys’ eye movements pointed right to the 3, 4, 5, and 6 numbers like those on the analog clock. It was assumed that these positions indicated they were processing information based on their feelings
and internal dialogue about the details of the story that they remembered from hearing the story rather than from their own reading comprehension and interpretations (Payne, 2001). A few of their eye movements were to the left in the downward positions to the 7 and 8 numbers like those on the analog clock, while occasionally they looked straight ahead before the eyes shifted to 3 position before moving rapidly to the 9 position. Quickly from the 9 position, they shifted their eyes downward again to the left to the 7 and 8 numbers’ positions; it was therefore assumed that they were constructing their thoughts from what they heard. The general assumptions about the data from these boys were that they *audibly constructed* and *audibly remembered* the details for generating their reader responses (Payne, 2001). Since the majority of their arrows pointed downward, it was further assumed that these boys were poor readers and relied on the oral reading of the story and on hearing their classmates’ ideas to generate their reader responses because of their cognitive incapacity to process the information from their own reading comprehension. Finally, it was also assumed that they relied on rote memory, active rehearsal activities, for learning. Consequently, these assumptions indicated that both boys needed intensive interventions and individualized instruction in reading in order to develop the skills for processing information from their own reading comprehension (Duffy, Sherman, & Roehler, 1997). They were excellent listeners with sharp memories because their oral responses revealed that they were using borderline organizational skills. However, the eye movements’ data was more precise for making final assumptions about their cognitive activities of using active rehearsal skills (Weinstein, Woodruff, & Await, 2004). After making final assumptions about these three boys’ cognitive activities, the results were placed into the appropriate group for the discussion of the findings according to FCAT reading levels.
Collectively, the findings of the cognitive strategies from the analysis of all of the boys’ written and oral reader responses were discussed in the Chapter 4, “Findings” that followed the summary of the study.

Summary: The Study

Although this qualitative research had multiple characteristics of ethnography and grounded theory involving social history, social anthropology, social psychology, cognitive psychology, neurology, cognitive neuroscience, literacy, and pedagogy, the theoretical framework with postmodern, post structuralist’s epistemology used was Lev Vygotsky’s (1962, 1978) social developmental theory of intellectual ability and Robert Steinberg’s (1977b, 1984, 1988) triarchic theory of multiple forms of intelligence. Vygotsky’s and Sternberg’s research illustrated that both thought and language were embedded in the culture and that they equally influenced cognitive development. Recognizing thought and language as the major medium for learning, Vygotsky’s research illustrated how a less experienced individual learned from the more experienced person through scaffolding.

In contrast, Sternberg’s (1977b, 1984, 1988) research explained that children’s success in school was determined by how they processed information. Drawing upon Shirley Heath’s (1983) research, Sternberg further noted that intelligence for schooling was based on three things: vocabulary, analogical reasoning, and creative ability, according to standards recognized by the dominant culture rather than the subculture. Therefore, both Sternberg and Vygotsky believed that cognitive development was enhanced by the quality of the learning experience.

To discover how to best address the quality of the introspective learning experience for some underperforming African Americans high school boys in an after-school program for a rural high school, a pilot study (Welch, Bowie, St. Juste, 2004) was conducted to determine the nature of their academic deficiencies, according to the Learning and Study Strategies Inventory-
High School Version (LASSI-HS) (Weinstein & Palmer, 2002). The result of the pilot study indicated that information processing was the African American high school boys’ greatest academic weakness. In 2004, there was not a LASSI for elementary pupils to measure their inner experiences (Gall & Gall, 1993), or a teaching module to correct their cognitive development. Therefore, this ethnographic case study of seventeen (17) underperforming African American boys in grades 3, 4, and 5 was conducted to determine which cognitive activities were used most for adopting the cognitive strategies’ categories that Claire Weinstein and her associates (2004) identified as being useful for performing successfully in academic settings and on psychometrically constructed tests. As the boys processed information to generate reader responses to children’s literature in a relaxed setting, the researcher collected oral and written reader responses for analysis (Willis, 2006). Since students in the pilot study lived and attended schools in a rural area within a small school district, the ethnographic study was conducted in a large urban school district. The advantage for doing so was that the school district had an established, supportive administrative structure and administrators for students living in low income neighborhoods, the physical facilities, instructional media equipment and materials, along with the appropriate reading selections and compatible teaching aids that were conducive for the cross-culture and interdisciplinary, introspective research.

The postmodern, epistemological paradigm for post structuralism (Moon, 1999) framed the study, which was ground in Lev Vygotsky’s (1978) and Robert Sternberg’s (1988) theories. In fact, these theories were analogous to the researcher’s perspective of post structuralism (Moon, 1999), because they were learned and adopted from personal experiences while teaching successfully language arts for more than a decade to African American pupils an impoverished junior high school in an urban city in Florida. Although the predominately African American
school was populated with pupils from low-income families and economically impoverished, they increased their test scores on psychometrically constructed tests in language arts. Therefore, the researcher’s perspective was compatible with Vygotsky and Sternberg’s (Neisser et al., 1996) learning theories and with Claire Weinstein’s (2003, 2004) and her associates’ research that identified the cognitive strategies for information processing. Consequently, the researcher’s introspective, qualitative design drew heavily upon Claire Weinstein’s research as illustrated in Figures 3-1 and 3-2 for an ethnographic case study that was ground in Vygotsky’s and Sternberg’s theories while using the epistemological paradigm for post structuralism for field research in a predominately African American elementary school in Northeast Florida.

The introspective qualitative research, design Figure 3-1, also incorporated Mingshui Cai’s (2002) idea of using the Venn diagram for researching the cognitive-developmental dimension of reader response to multicultural literature. However, the contents of the design model’s components were based on two strands of pedagogical research. They were Claire Weinstein, A. L. Woodruff, and C. Await’s (2004) instructional information processing section of the Learning and Study Strategies Instructional Module, and Wendy Kasten, Janice Kristo, and Amy McClure’s (2005) adaptations of Louise Rosenblatt’s (1980) reader response transactions for an elementary school language arts program. Collectively, these authors’ research was analogous to Lev Vygotsky’s (1962, 1978) and Robert Sternberg’s (1977b, 1984, 1988) earlier works.

Since the pilot study for the ethnographic case study involved pupils attending rural schools, special attention was given to the research’s methods and procedures. These included the selection of the urban population, setting, participants, as well reading selections that appealed to the targeted group’s interests. The procedures for the study included data collection
of oral and written reader responses, eye movement drawings, and data analyses from all of the collected transcripts. The adherence followed three basic researchers’ tenets: (1) the rigor of Gordon Willis’ (2005) cognitive interviewing questions, (2) Jaber Gubrium and James Holstein’s (2002, 2003) post structural interviewing standards, and (3) Brian Moon’s (1999) theory for the deconstruction of cultural factors and their consequences, such as stereotypic beliefs about the intellectual abilities of African Americans (Comer & Pouissant, 1992; Myrdal, 1996). In addition, a civic, community-based research group had studied and documented how hostile racial attitudes, Southern traditions of racism, as discussed in Chapter 2, “Review of Literature”, affected African American’s learning negatively when they integrated the public schools. Collectively, the overt social conditions of the schooling process not only influenced negatively some African American boys’ academic success but ultimately the social conditions affected the achievement of success in their lives as well (JCCI, 1992, 2003, 2004). Therefore, the 19th largest school district in the United States was addressing the negative social effects on learning through the Title 1 Parent and Counseling Resource Center as a part of its overall school reform to upgrade low performing schools. Because of the District’s infrastructure, the Center was conducive and highly cooperative for the ethnographic case study.

The Director of the Title 1 Parent and Counseling Resource Center chose the seven reading selections for the study from the *Great Books Elementary Series*. Twelve additional writings were chosen to enhance the understanding of the main reading selections, as well as to include some culturally conscious books for the extended reading. All nineteen readings were considered in making assumptions about the boys’ levels of academic proficiency and the cognitive activities and strategies that were used for reader responses. However, the data collected from the eye movements during one-on-one interviews of three of boys were
considered to clarify their borderline cognitive processing status. For example, one boy was a
gifted artist with few writing skills, while two of the boys’ oral reader responses indicated
borderline active rehearsal and organizational cognitive activities’ skills. Ultimately, the boy
artist’s data were placed with the organizational activities’ group in Chapter 4, “The Findings.”
The other two boys were assumed to be using the lowest level of information processing for
remembering details, the active rehearsal strategies using short-term memory from listening to
their peers’ comments. Although the technique was introspective (Chopra, 2004; Skinner, 1990),
the eye movement’s data were considered in making analytical assumptions for the three
borderline cases. Their results, therefore, were useful for placement in one of the groups
discussed in Chapter 4, “The Findings.”
Figure 3-1: A module of the Research Design: Discovery of Strategies for Processing Texts
Figure 3-2: Levels of Cognitive Thinking for Academic Learning
CHAPTER 4
THE FINDINGS

There are significant correlations between measures of information-processing speed and psychometric intelligence, but the overall pattern of these findings yield no easy theoretical interpretation (Neisser et al., 1996, p. 97).

**Introduction: The Challenge**

Since academic research from institutions of higher learning in the United States was specialized according to various disciplines, the scarcity of literature from the colleges and schools of education about cognitive strategies used for processing information for studying and learning posed a challenge. Therefore, the researcher embarked on a cross-cultured and interdisciplinary exploration of academic and professional disciplines to cite documentation to explain how 17 underperforming African American elementary school boys processed information to create reader responses to children’s literature. Additional understanding about potential, school dropouts’ usage of cognitive skills to generate reader responses during an after-school reading program would help parents and teachers in choosing the appropriate intervention programs (Feurstein, 1980) to correct similar pupils’ underdevelopment (Comer & Ben-Avie, 2004). Mel Levine (2007) aptly suggested that all pupils needed the essential cognitive backpack for academic success.

Although the challenge of teaching African American boys with academic underdevelopment and less stellar performance on standardized tests rested with teachers and their pedagogical methods, the solution to academic achievement problems, however, first began in the pupils’ minds (Strickland, 1969; West, 1999b; Williams, 2006). Since the majority of the social institutions denied and discouraged research to identify the racially motivated pathological behaviors and negative social effects toward African Americans, in particular, and other non-Western Europeans, in general (Myrdal, 1996; Takaki, 1993), it was a challenge to document the
point-of-view how underperforming African Americans boys could imitate the Talented Tenth that excelled in spite of the odds (Williams, 2006). Their accomplishments, according to the literature, were the results of their cognitive strengths (Woodson, 1990), even though African Americans were believed, by some people, to be intellectually inferior. The researcher, therefore, explored the medical literature in psychiatry, cognitive psychology, neuroscience, and neurology (Weinstein, 2003; Restak, 2004; Willis, 2006, 2007b, 2007c) in addition to the field of education. The exploration gave a better understanding of how the human brain processed information to learn (Jensen, 2005). This approach was necessary in order to accept the psychologists’ and psychiatrists’ points-of-view to deconstruct the pathology of racism in the United States (Myrdal, 1996) and its negative social effects on learning in a school environment.

In spite of the documented negative effects on learning from the historical and cultural influences that affected African American boys’ less stellar academic performance in the classroom and on standardized tests, some African Americans achieved academically in spite of the social obstacles and were identified by W. E. B. Du Bois as the Talented Tenth (Lewis, 1993; Franklin, 2005). Yet, educational and sociological researchers before the 1980’s failed to document why they achieved academically, even in spite of an unevenly designed schooling process (John-Steiner, 1997; Sternberg, 1988; Weinstein, Woodard, Await, & 2004). In contrast, the scientific literature revealed that humans were cognitively more alike than the social institutions wanted to admit and accept (Balter, 2005; Bamshad & Olson, 2003; Cheng et al., 2005; Graves, 2004). It was documented from the social scientists’ literature, however, that the psychological, political, and economic self-interests were created to rationalize discriminatory social policy (Fish, 2002; JCCI, 2004). Therefore, there was no national interest to correct the pathological dilemma that Gunnar Myrdal (1996) outlined in 1944 in *An American Dilemma*. In
most educational and legal circles, the work was simply ignored until Mamie and Kenneth Clark’s research was used in *Brown v. Board of Education* in 1954 that demonstrated the negative psychological effects of racism on young children. However, research regarding why some individuals achieved in spite of “the pathological dilemma” still remained dormant.

In 1983, Claire Weinstein and her associates, however, searched the literature and identified the cognitive strategies for parents to use to help their young children acquire effective study skills and strategies for learning and achieving in school (Weinstein, Wittrock, Underwood, & Schulte, 1983). In addition, some psychiatrists and psychologists worked within their professional societies to acknowledge how racism affected the society at large. Such an acknowledgement by the creators of discriminatory social policy would have aided in the eradication of racism through federally sponsored research (Poussaint, 2002). Unfortunately, politicians ignored James Comer’s response to the *Kerner Report* in the seminal article “White Racism: Its Root, Form, and Function” that was published in the *American Journal of Psychiatry*. The article explained that African Americans were reacting to white racism; therefore, it undergirded the cause of the riots in the 1960’s in several urban cities heavily populated by blacks. However in 2002, the psychiatric literature revealed that the idea of acknowledging extreme racism as a mental illness was still debated in the *American Journal of Psychiatry*, the official journal of the Psychiatric Association, and the *Western Journal of Medicine*. In the same vein, five decades after the Supreme Court accepted the Clark’s research for *Brown v. Board of Education* to outlaw racial segregation and the effects of racism on young children, the psychological literature in 2004 revealed that the American Psychological Association (APA) had not officially adopted the social science that the Clarks used for the Court’s ruling in 1954 (Clark, Chein, & Cook, 2004; Fine, 2004).
In spite of the academic and professional debates about the effects of racism, Claire Weinstein and her associates created the Learning and Study Strategies Inventory (LASSI) in the 1990’s for college students to discover their academic strengths and weaknesses for studying and learning. By 2004, they also created through H & H Publishing Company a module for college students to teach themselves the cognitive skills needed to achieve in higher education (Levine, 2007). Utilizing Weinstein’s (2003) research along with the Learning and Study Strategies Inventory (LASSI) for some high school students, the result of a pilot study revealed that the African American boys’ greatest weakness in rural Alachua County schools in the high school was information processing (Welch, Bowie, & St. Juste, 2004). Since in 2004, there was no LASSI for elementary school pupils, this qualitative research engaged in the quest to understand how some young underperforming African American boys in an urban elementary school used cognitive strategies to process information. By discovering their weaknesses and strengths at an early age, these potential dropouts could be taught how to study and learn for academic settings and thereby correct their own cognitive behavior to acquire the skills for academic achievement, of course, with the help of a more experienced learner (Steinberg, 1988; Vygotsky, 1978). Consequently, the researcher used Lev Vygotsky’s and Robert Steinberg’s research as the theoretical framework for the qualitative study and met the documentation challenge by drawing from scientific research regarding how the brain processed information, as well as applicable cross-cultural, literacy, and pedagogical research.

**Findings Grouped by Reading Levels**

Although the multiage group had various reading levels, the boys’ socio-economic levels and reading interests were similar. In addition, the 17 African American boys in grades 3, 4, and 5 in an urban school were considered to be underperformers in their language arts classes, according to their teachers, a guidance counselor, and the Director of the Title 1 Parent and
Counseling Resource Center. Since reading was a major requirement for success in school (Duffy, 2003), the data were grouped according to their Florida Comprehension Assessment Test (FCAT) reading levels’ scores after the study ended. Then, the oral and written reader responses were analyzed. Only three boys’ eye movements, however, were analyzed for making assumptions about their reading levels. The researcher did not know the boys’ FCAT reading levels prior or during the study. These additional precautions were taken to avoid the researcher’s bias.

After there was no further contact with the boys or their parents, a conference was held with the guidance counselor who screened the boys’ academic profiles before contacting the parents about the after-school reading program and the study. Before signing permission slips for participation in the after-school reading program and their obligations for transportation home after each session, the parents were again reminded of the nature of the study even though the request was for African American boys with FCAT Reading Level 1 or 2’s. The screening procedures further confirmed the language arts teacher’s assessment about the child’s academic performance and the parents were informed of the same.

The researcher also chose to use the Florida Comprehensive Assessment Test (FCAT) reading level’s scores for grouping the data’s findings for the discussion because of the State of Florida’s reading requirements for promotion to the next grade and graduation (Florida DOE, 2003) and the local school district’s at-risk for retention policy (DCPSD, 2007). In addition, teachers tended to use these indicators for instructional purposes. Frank Smith (1997) maintained that reading was an individualized cognitive act. Consequently, pupils did not always acquire their reading skills at the same time or rate as their peers (Allington, 2006). Therefore, the findings were presented as a composite, consensus of the cognitive strategies used for
generating the reader responses according to the data analyses rather than by ages or grade levels. In addition, parents and teachers could make further assumptions about the cognitive characteristics of others with similar FCAT reading levels for choosing an appropriate intervention program for individualized correction of the cognitive underdevelopment (Comer & Ben-Avie, 2004). Although the FCAT had five reading levels, the findings for the 17 underperforming African American boys indicated a need for only Levels 1, 2, 3, and 4 as discussed in the next sections.

**FCAT Reading Level 1**

Seven or 41% of the 17 underperforming African American boys’ data in the study were placed in the *Florida Comprehensive Assessment Test* (FCAT) Reading Level 1, the lowest reading score group. Five (71%) of the seven boys’ data in the lowest group involved “the story method” cognitive strategy (Weinstein, Woodruff, & Await, 2004). For example, in many instances, they simply retold the plot of the story. One of the five boys merely reread portions of the story aloud as a reader response. These activities indicated they used the cognitive strategy of creating a brief story, one of the *active rehearsal* category’s activities for processing information that relied on their short-term memories (Weinstein, Woodruff, & Await, 2004). In contrast, only two (29%) of the seven boys in the lowest group occasionally used organizational strategies that used longer-term memory. As border-line cases between *active rehearsal* and *organizational strategies* users, however, the data from the observation of their eye movements revealed that they depended heavily on their auditory memories for generating their responses. Therefore, it was assumed that they were excellent listeners, in spite of being poor readers, to be able to process information from hearing their peers’ organizational strategies and then to generate their own reader responses. Based on these assumptions, their data were place with the FCAT Reading Level 1 group.
Nevertheless as a group, the boys with the FCAT Reading Level 1 processed information using active rehearsal strategies by repeating the plot of the story from their own reading comprehension or from hearing the comments of others. Consequently, it was assumed that the majority of that information was stored in their short-term memory circuits (Weinstein, Woodruff, & Await, 2004; Willis, 2006). Therefore, the details of the stories would soon be forgotten (Weinstein, Woodruff, & Await, 2004).

**FCAT Reading Level 2**

Five or 29% of the 17 underperforming African American boys’ data in the study were placed in the *Florida Comprehensive Assessment Test* (FCAT) Reading Level 2 group for discussion. Like their peers with FCAT Reading Level 1, four (80%) of the five boys processed information to reduce the story to a paragraph (Weinstein, Woodruff, & Await), but they usually did so as prologue to discuss a general point-of-view. For example, the oral reader responses revealed the hierarchical relations among characters in the story to point out injustice, without using the technique in their written reader responses. Nevertheless, the hierarchical relation’s discussions indicated they used their longer-term memories to process information, an organizational strategy activity commonly used in a literary discussion.

One boy (20%), however, did not use the story method as a prologue for further discussion of injustice. Instead, he dissected the plot and chose one vital element in the plot to explain a moral. The use of the two organizational strategies’ activities, as cognitive strategies (Weinstein, Woodward, & Await, 2004), to create reader responses were demonstrated in his written compositions’ deep structures (Bandler & Grinder, 1975; 1982). These usages indicated that he had acquired more experience with the cognitive activity than his peers in FCAT Reading Level 2 group.
The reason why the majority of the boys in the FCAT Level 2 group preferred to use one organizational strategy activity (Weinstein, Woodruff, & Await, 2004), in a limited fashion, for processing information about injustice was unclear. For example, often times their opinions were vague without the usage of elaboration strategies to substantiate firmly their points-of-view or to separate their opinions from the facts of the story. Consequently, it was assumed that because their reading comprehension skills were weak, they did not grasp the essential details of the plot firmly enough to process the information on a higher cognitive level to support their points-of-view.

As a group, however, the FCAT Reading Level 2’s data relied too much on the one active rehearsal strategy’s activity for processing information with limited usage of cognitive organizational strategies to create oral reader responses, while they avoided using the elaboration strategies’ activities involving their long-term memories (Weinstein, Woodruff, & Await, 2004) in their compositions. Although 19 readings were used in the study, there were only four opportunities for written reader responses. Nevertheless, only one pupil used two organizational strategies’ activities in one written composition that contained deep structures (Bandler & Grinder, 1975, 1982). In contrast, four of the boys’ written reader responses confirmed that they preferred writing the plot of the story in a paragraph, an active rehearsal strategies’ activities that required the short-term memory (Weinstein, Woodruff, & Await, 2004).

**FCAT Reading Level 3**

Four or 24% of the 17 underperforming African American boys’ data in the study were placed in the Florida Comprehensive Assessment Test (FCAT) Reading Level 3 group for discussion of the findings. This group’s score represented an average reading level achievement for the FCAT. Three (75%) of the four boys’ data in this group briefly summarized the plot (active rehearsal strategy’s activity) using deep structures (Bandler & Grinder, 1975, 1982) in
oral and written reader responses before stating a moral for the story or making a critical hierarchical comment about the character’s behavior (organizational strategy’s activity) (Weinstein, Woodruff, & Await, 2004). The same three boys wrote their compositions in five-sentence paragraphs using a variety of simple, compound, complex, and compound–complex sentences, without editing them for standard conventions (Florida Curriculum Framework, 1996).

In contrast, one (25%) boy with a FCAT Reading Level 3 used his active rehearsal and organizational strategies’ activities (Weinstein, Woodruff, & Await, 2004) differently from his peers. Rather than creating a brief story paragraph, in his compositions, he used a sentence to recall the plot in a carefully crafted precise (two active rehearsal strategies’ activities) (Weinstein, Woodruff, & Await, 2004). Then, he used supporting sentences to explain his ideas while using simple and compound sentences that often contained deep structures (Bandler & Grinder, 1975, 1982). In his written summaries, he repeated the essence of his introductory statement and identified or classified the material or the character(s), depending on his point-of-view, in the opening statement (two organizational strategies’ activities) (Weinstein, Woodruff, & Await, 2004). The usage of slang and dialect without using the normal conventions for dialogue, however, diminished the overall quality of his compositions (Florida Curriculum Framework, 1996).

Unfortunately, the boy that used active rehearsal and organization strategies’ activities differently from his peers did not craft his oral reader responses well, even though he rarely initiated any discussion about a particular point-of-view. Instead, his oral comments supported or rejected ideas during the discussion (organizational strategy’s activity). Therefore, it was assumed that he often reserved his opinions and carefully listened to others before speaking. It
was also assumed that this boy was unaware that he was using slang and dialect as if it were
Standard English (Florida Curriculum Framework, 1996) in his surface and deep structures
(Bandler & Grinder, 1975, 1982) that reduced the quality of his carefully structured
compositions and his reserved oral responses (Florida Curriculum Framework, 1996).
In summary, this group’s data indicated they performed as average readers using both active
rehearsal and organizational strategies’ activities (Weinstein, Woodruff, & Await, 2004) to
create oral and written reader responses. One boy demonstrated strong cognitive skills in
reading comprehension (Duffy, 2003) while using active and organizational cognitive strategies.
Three of the boys’ data indicated that they did not edit their written work for violations of the
basic conventions, like spelling, punctuation marks, and capitalizations (Florida Curriculum
Framework, 1996). On the other hand, one boy with strong cognitive skills was apparently
unaware, unfortunately, that he often used dialect and slang in both oral and written reader
responses in a way that overall diminished his language usage’s proficiency (Florida Curriculum

**FCAT Reading Level 4**

One or .05% of the 17 underperforming African American boys’ data in the study went
into the Florida Comprehensive Assessment Test (FCAT) Reading Level 4 group for discussion
of the findings. The boy’s data confirmed his above average reading level because he formed an
analogy based on his prior knowledge about a biography he previously read while processing the
new information he received from reading a story during the study. By doing so for an oral
reader response, he demonstrated using an elaboration strategy’s activity (Weinstein, Woodruff,
& Await, 2004), one of the highest cognitive strategies’ activities for processing new
information. When he made the analogy, the group found the comment interesting and
suggested reading additional works to learn more factual details about his comment. The
researcher obliged and added two additional children’s books to the study. One was another author’s version of the historical figure’s biography originally chosen for the study, while the other book was a short biography about the person that the boy previously read. With the reading of three biographies, the group was exposed with information to understand the analogy that was introduced in the discussion.

The additional information from the extended readings provided all of the boys an opportunity for using more elaboration strategies’ activities, such as cross references, other analogies, or new mental images from associating the additional biographies with other prior readings or personal experiences (Weinstein, Woodruff, & Await, 2004). However, no other elaboration strategies’ activities occurred in their oral responses about the three works or any additional discussion about the analogy’s point-of-view that prompted the additional readings. Instead, the group’s data revealed that the oral reader responses consisted of more of the same active rehearsal strategies’ activity for retelling the story (Weinstein, Woodruff, & Await, 2004). The data also revealed that the two biographies’ plots were compared and/or contrasted in their discussions (organizational strategy’s activity) without creating new images based on their personal experiences or prior knowledge from reading additional works to elucidate their points-of-view (elaboration strategies’ activities).

Although the one boy’s data revealed an accurate analogy in an oral reader response, the elaboration strategy’s activity using other literature was absent in his written compositions. In contrast, his written data revealed he had strong skills in using the story method to create a plot (an active rehearsal strategy’s activity), create compositions with an introduction, two or more supporting sentences, and a well-constructed summary, while his oral reader responses often dissected the story’s plot to create a moral after discussing the hierarchical relationships among
characters to identify injustices (three organizational strategies’ activities) (Weinstein, Woodruff, & Await, 2004). In addition, surface structures were rarely used in his written and oral reader responses; instead, he often used a variety of sentences with deep structures (Bandler & Grinder, 1975, 1982). Like the other 17 boys in the study, however, he did not edit his written compositions to correct standard convention’s errors (Florida Curriculum Framework, 1996).

The FCAT Reading Level 4 data were without peers because there was only one individual to score on that level. From the data’s findings, the researcher assumed that the pupil was capable of developing the technique of creating analogies more frequently, especially in his writings, as well as using additional elaboration strategies’ activities if he were made aware of the skill because he demonstrated strong reading comprehension capabilities (Duffy, 2003). These cognitive traits did not surface in the findings in the other boys’ data in the study.

**Findings Grouped by Cognitive Activities**

Claire Weinstein and her associates (2004) created a module for college students to teach themselves 16 cognitive activities in Table 2-4 for processing information useful for engaging successfully in an academic setting with the aid of an experienced learner (Steinberg, 1988; Vygotsky, 1962, 1978) in higher education, such as a guidance counselor and/or classroom teacher during the learning process. In the module for college students, the 16 cognitive activities as illustrated 2-4 for processing information were divided into three categories: (1) five activities for active rehearsal strategies that used only the student’s short-term memory, (2) four activities for organizational strategies that used the longer-term memory, and (3) seven activities for elaboration strategies that used even longer-term memories (Weinstein, Woodruff, & Await, 2004). The activities for each cognitive strategy’s category were listed in Table 2.4 discussed in Chapter 2, “Review of Literature”, and illustrated in Table 2-4. and placed in italics in the discussions.
Although some of the activities taught the college students how to study and learn information for various academic disciples, there were specific activities conducive for strengthening language arts skills in reading comprehension and responding to literary works and analysis in the elementary school classroom (*Florida Curriculum Framework*, 1996). The cognitive activities applicable to oral and written responses for literary works for pupils in grades 3, 4, and 5 were identified and used as indicators for the discussion of the findings since pupils began acquiring reading comprehension skills during their language arts classes in elementary school (Duffy, 2003). Students then learned how to use the reading comprehension skills for literary analysis in middle and high schools’ English language, literature, and composition classes and other subjects to learn (*Florida Curriculum Framework*, 1996). In a balanced language arts program, however, elementary school pupils learned certain thinking skills in an integrated manner (*Florida Curriculum* frameworks, 1996; Kasten, Kristo, & McClure, 2005).

For example, pupils that were exposed to the *Florida Curriculum Framework* (1996) suggested activities acquired a matrix of “thinking skills” that were prescribed for certain grade levels. However in grades K-2, pupils were expected to acquire from reading texts certain skills in observing, comparing, sorting (classifying), ordering (sequencing), and predicting. In contrast, in grades 3-6 pupils were expected to acquire from a wider variety of activities and skills in classifying, sequencing, summarizing, decision making, problem solving, hypothesizing, drawing conclusions, identifying facts and value claims, identifying relevant information for citation, determining the accuracy of a claim, and identifying reliable sources and human resources for documenting written compositions. Having mastered this matrix of “thinking skills”, pupils in elementary school were prepared cognitively for a variety of academic subjects to be studied in grades 7-12 (*Florida Curriculum Frameworks*, 1996). In other words, pupils in
elementary school first learned how to read (Chall, 1996), after which they were expected to acquire cognitive skills to learn from their reading comprehension (Allington, 2006; Duffy, 2003) how to study effectively to accomplish each discipline’s learning outcomes from their reading in- and out- of the classroom, as well as to perform well on standardized tests (Hirsch, Jr., 2006).

Since the ethnographic study included boys in grades 3, 4, and 5, no attempt was made to include the findings for each boy’s strengths or weakness for a matrix of “thinking skills.” Instead, the findings were the results of analyzing the boys’ oral reader responses according to the _Learning and Study Strategies_ (LASSI Module’s cognitive strategies and activities listed in Table 2-4 (Weinstein, Woodruff, & Await, 2004) for processing information. Based on the interpretation of the contents of the transcripts from the boys’ oral and written reader responses, the researcher determined if they used certain cognitive activities in the _active rehearsal_, _organizational_, or _elaboration strategies_’ categories by matching their reader responses to the activities listed in Table 2-4 (Weinstein, Woodruff, & Await, 2004). From the matching, the researcher made assumptions about the boys’ mental activities to create the reader responses. Therefore, matched activities for each boy yield a finding. Then, the frequency of each of the three cognitive activities’ categories of information processing usage was tallied according to the cognitive category to determine if the boy had collected enough of the activities during in the study to indicate that he had developed a cognitive strategy for reader responses to children’s literature.

Finally, the data were separated into the cognitive strategies’ categories of activities (active rehearsal, organizational, and elaboration strategies in Table 2-4 for a discussion of the group’s usage that were applicable to one of the stories that were read for the study. Therefore,
the findings of the cognitive activities were grouped for discussion according to the following subtopics: (1) “Findings of Active Rehearsal Activities”, (2) “Findings of Organizational Activities”, (3) “Findings of Elaboration Activities”, (4) “Findings from Written Responses”, (5) “Findings from Written Responses”, and (6) “Findings from Eye Movement Drawings” with a Summary. The first subtopic “Findings of Active Rehearsal Activities” were discussed first in the next section.

**Findings of Active Rehearsal Activities**

Of the five activities that were used to create *active rehearsal strategies* (Weinstein, Woodruff, & Await, 2004) for processing information, two of them were applicable for reading comprehension and reader responses to literature (Duffy, 2003; *Florida Curriculum Framework*, 1996) in elementary school language arts programs, while the other three were more suitable for studying other academic disciplines or for memorizing information as a rote-memory technique (Willis, 2006). The two active rehearsal activities applicable to literature listed in Table 2-4, Appendix D were (1) the retelling of the story in a summary and (2) the linking of essential details in the story with a theme to recall expository and descriptive details (Weinstein, Woodruff, & Await, 2004). Of these two activities, the findings revealed the underperforming African American boys used “the story method” of summarizing the details of the plot for every literary selection. When the background of the setting and/or the persona of the characters were less known, the simple retelling of the plot was more prevalent.

For example, the data from *The Brave Little Tailor*, a series 3 tale from the *Junior Great Books for Elementary School Series* (2004-2005), revealed that the story method was used more so than any of the other cognitive activities to process information to create reader responses. Although the boys recognized and pronounced certain words like “garden”, “tailor”, “boar”, “unicorn”, and “brave”, they did not conceptualize how their British meanings related to the plot.
or the characters’ behaviors. Since the setting of the tale involved a fictionalized British
countryside, the boys had a limited concept of the word “garden” to mean a territory of well
manicured shrubs, trees, and other ornamental greenery and beautiful flowers. With the
illustration of an “English garden” in the story, the concept was better understood that the setting
and the meanings of certain words referred to British English.

In addition, the boys had little background knowledge of a tailor’s job description. They
had no experience of visiting a tailor or of knowing anyone in their neighborhood that was a
tailor. Consequently, much of their data revealed explanations about the British tailor’s behavior
in the beginning of the story when he crafted and wore a belt with the “number 7” on it.
Although “the number 7” represented that the tailor killed seven flies in one blow, it was
mistaken by other characters in the story that he was a brave warrior, an implied action that
helped to suggest the fictionalized setting’s timeframe and soldiers’ behaviors. In the same
vein, the explanation of the “unicorn” and the significance of the tailor’s feat of killing it were
also difficult, even with the aid of the story’s illustration. After the explanations of certain
words common to British culture were understood, the boys tended to retell the story regardless
of the questions asked. Therefore, a discussion of why the tailor was considered brave, a very
obvious detail suggested in the title of the story, was overlooked. The boys also overlooked the
series of hierarchical details that the tailor repeated in order to marry the King’s daughter. In the
same vein, the hierarchical relationships between the King’s fear, as a royal, and the tailor’s
eagerness, as a commoner, to accept more and more difficult challenges were also overlooked.

The mere mention of how several of the minor characters in the story, The Brave Little
Tailor (Grimm & Manheim, 2004), repeated behaviors in a series would have indicated that the
boys recognized the cataloguing of serial actions. Even basic recognition of the author’s
technique in an elementary way would have further indicated a form of organizational thinking that occurred for processing the information in the story. However, a discussion of any of the hierarchical details was avoided even though The Brave Little Tailor was chosen to collect data to discover how the boys processed information using organizational strategies. Hence, it was assumed that the story was too complicated for the pupils’ level of reading comprehension because they did not understand the British culture implied in the plot. In summary, because of the boys’ limited background knowledge to respond to the story on a higher level (Hirsch, Jr., 2006), they used the active rehearsal activity of retelling the story in bits-and-pieces while making meaning of the British tale (Duffy, 2003; Kasten, Kristo, & McClure, 2005).

In contrast, the boys understood the vocabulary and culture in A Game of Catch (Wilbur, 2004), a series 5, second semester story from the Junior Great Books for Elementary School Series (2004-2005). Yet, the reader responses’ data to the story revealed the second highest usage of “the story method”, an active rehearsal activity. When the researcher encouraged the discussion about the younger boy’s feelings of rejection in the story, the discussion continued with the retelling of the plot, even though A Game of Catch was chosen to discover if the fifth graders in the study would use elaboration activities on grade level (Florida Curriculum Framework, 1996) in their reader responses. Nevertheless, all of the readers in the study failed to associate a personal experience with the two characters in the story that created an organizational pattern of rejection toward the young boy who wanted to play with them. In the story, rather than the young boy asking the two boys seventh grade boys to include him in their game, the young boy climbed dangerously high into a big tree to distract them verbally from their game of catch. The researcher predicted that one of the two boys’ acts of rejection or the young boy’s action of deflection of their rejections by “trash talking” in the tree would be
associated, at least by the fifth grade boys in the study, with a personal experience for an elaboration activity using an organizational activity or elaboration strategy. Instead, the data revealed that all of the boys in the discussion concentrated on the sequence of events in the plot and failed to understand why the characters were acting in a certain manner. Therefore, it was assumed that because of their level of reading comprehension, they failed to use a higher level of information processing to create an analogy from their own experience.

Consequently, when the researcher questioned about the theme of the story that explained the organized behaviors of the two boys that were playing catch together before the younger boy arrived, the question was ignored without inquiring what a theme was or showing an interest in trying to understand why the young boy continued dangerously climbing to the very top of the tree. Therefore, it was further assumed that the readers had limited experience in understanding how to link expository and descriptive details of a story with a theme to recall essential actions of a plot. The boys did not engage in the more involved, higher-order information processing technique utilizing the short-term memory’s active rehearsal activity for analyzing a literary text (Florida Curriculum Framework, 1996; Weinstein, Woodruff, & Await, 2004). Not knowing when to use organizational and elaboration strategies, the boys’ data in the study revealed an over-use of “the story method”, an active rehearsal activity to generate reader responses from the short-term memory (Cai, 2002). In summary, the findings further revealed that “the story method” was used most when the boys lacked the cultural background to comprehend the expository and descriptive details or the behavior of the character(s) (Hirsch, Jr., 2006). In other words, the boys used the active rehearsal cognitive strategy to making meaning of the story by using the short-term memory for information processing (Florida Curriculum Framework, 1996; Weinstein, Woodruff, & Await, 2004).
Findings of Organizational Activities

The four activities used to create organizational strategies (Weinstein, Woodruff, Await, 2004) involved longer-term memory. Therefore, successful academic students knew how and when to use these activities to perform well on psychometrically constructed tests (Sternberg, 1996). Three of the four organizational strategies’ activities in Table 2-4 were applicable for reading comprehension and oral reader responses to texts. The three applicable organizational activities were (1) dividing the material into meaningful parts or vital beginning, middle, and end sections and categories that reflected the essence of the whole text; (2) identifying hierarchical relationships within the material; and, (3) classifying or categorizing the material (Weinstein, Woodruff, & Await, 2004). On the other hand, the fourth organizational activity was more conducive to written reader responses to texts because it involved diagramming and/or outlining the text’s information using charts, tables, and figures (Weinstein, Woodruff, & Await, 2004). Collectively, these organizational activities constituted the essential skills for studying and learning (Levine, 2007). Claire Weinstein and her associates’ (2004) called the four activities the organizational strategies activities for longer-term memory.

Two stories, The Brave Little Tailor (Grimm & Manheim, 2004) and The Fisherman and His Wife (Grimm & Crane, 2004) were chosen to collect data to discover how the boys in the study processed information using organizational strategies. Neither of the two stories produced the predicted findings, although both were series 3, first semester stories from the Junior Great Books for Elementary Schools Series (2004-2005). Unexpectedly, the story method” was used most with The Brave Little Tailor to generate reader responses. The Fisherman and His Wife’s oral and written reader responses, however, yielded a basic elementary organizational activity, while the “story method” was used only twice.
For example, the other boys recognized the hierarchical relationship between the sexes and discussed it as a form of injustice. They discussed, citing details from the story, how the wife continuously coerced her husband to ask favors from a fish that he taught one day but returned it to the ocean because it was an enchanted prince. Since the fish had magical powers to grant wishes, the fisherman’s wife told him to ask for a better house because she was unhappy living in a tiny hut. Reluctantly, the husband obliged. But when the wish was granted, the wife was still unhappy and wanted a palace with the entire splendor. After receiving the place, she wanted to become a king over the territory. Every day the wife wanted her husband to ask the fish for something else because she was unhappy. In contrast, the husband was happy without all of the material wealth of the palace. Therefore, he did not want to ask the fish for favors, but he wanted to make his wife happy. So, he asked the fish to make her a king. However, when she wanted the enchanted prince to give her control over the elements her husband tried to convince her that the request was unreasonable. But, she told him he could not refuse a king’s request. The husband obeyed her, but she lost everything that she had previously gained. The boys understood the uneven hierarchical relationship of dominance between the husband and wife which was a basic organizational activity for processing the detailed information in the plot of the story. On another level, the boys used critical literacy to point out how the wife became king, not a queen, and used her power to control her husband. The boys clearly understood the gender dynamics between the sexes clearly.

Like *The Brave Little Tailor*, the plot of *The Fisherman and His Wife* also had serial details of challenges that progressively got bigger and bigger. For example, the tailor’s challenges to win the honor of marrying in the King’s daughter became more and more difficult in *The Brave Little Tailor*, while the wife’s wishes for symbols of wealth and power became larger and larger.
and more of a task for the husband to go against his better judgment to ask for unreasonable favors from the enchanted prince in *The Fisherman and His Wife*. Even though there were fewer serial details in *The Fisherman and His Wife*’s plot, the boys ignored the hierarchical nature of the ascending order of the serial challenges in both stories. The progression of the challenges in both stories, however, was essential to the behavior of the characters.

It was assumed, however, that the boys’ lower-level of reading comprehension caused them to overlook the serial challenges’ effects and influences on the characters in both stories. Therefore, they were incapable of understanding why the characters were behaving in a certain manner. Hence, the boys’ oral and written reader responses in *The Fisherman and His Wife* discussed the hierarchical relationship between the husband and the wife as being one of injustice rather than the characters’ moral flaws. Consequently, it was further assumed that the boys had little experience using an organizational activity to process detailed information given in a literary text and applying the essence of those details to explain or describe the characters’ behaviors in the story. Therefore, in summary, it was ultimately assumed that the boys used the basic, elementary information processing skills in using the organizational activity to make meaning of the story, but they did not know what to do with that information for a more in-depth reader response on their grade level (*Florida Curriculum Framework*, 1996). Since the “hierarchical relations” was printed in the text of the story, from their long-term memories, they drew upon their background knowledge to recognize the wife’s series of behavior. However, the frequency of using organizational activities with the other stories indicated that they had not developed the technique of using organizational strategies.

**Findings of Elaboration Activities**

Of the seven activities that were used to create elaboration strategies (Weinstein, Woodruff, & Await, 2004) for processing information, all of them, were applicable for reading
comprehension and reader responses to literature (Duffy, 2003; *Florida Curriculum Framework*, 1996) in elementary school language arts programs, as discussed in Chapters 2 and 3. In order to perform, at least, the basic, elaboration activities successfully, however, the reader needed to perform two of the five active rehearsal activities, such as (1) reducing information to recall the essence of a text and (2) linking facts, events, and persons for recognizing patterns and/or a literary theme/moral. Along with basic, active rehearsal activities, in the same vein, the reader also needed to be able to perform three of the four organizational activities for academic settings, like: (1) dividing the material into meaningful parts (beginning, middle, and end) to reflect the essence of a text, (2) outlining the pertinent facts of the text to highlight its essence, and (3) classifying or categorizing the essence of a text. In addition to being able to perform the above five tasks, the pupil most of all needed to know when to apply the skills to execute an elaboration activity. Therefore, to perform elaboration activities, the pupil’s longer-term memories and higher-order thinking skills were essential. Consequently, the researcher assumed that the majority of the boys in the study lacked practiced in reading and discussing stories enough to learn how to use elaboration strategies’ activities for processing information involved higher-order cognition (Weinstein, Woodruff, & Await, 2000). It was further assumed that they had not acquired the metacognitive skills from practicing the matrix of “thinking skills” through their language arts program enough to use higher-order elaboration thinking skills (*Florida Curriculum Framework*, 1996).

In fact the data revealed only one boy’s usage of elaboration activities conducive for academic settings (*Florida Curriculum Framework*, 1996; Weinstein, Woodruff, & Await, 2004). Tim (age 9, third grade) associated facts from the new reading material with knowledge gained from his prior study of a biography about Martin Luther King, Jr. For example, Tim’s
dialogue presented in Chapter 3, “The Study”, revealed that he used six of the seven elaboration activities (Weinstein, Woodruff, & Await, 2004). First, he recognized that the life of Malcolm X was new to him, but he instantly compared Malcolm’s biography with another civil rights leader, Martin Luther King, Jr. In order to make the comparison, he mentally formed a comparative image of a civil rights leader from his own reading inference, which was the second elaboration activity. Third, he chose the death of the two men’s ages to create an analogy. Fourth, he paraphrased sections of the new reading material to explain to the group his analogy. Fifth, he used facts from the new information to convince his peers of a point-of-view gained from his prior reading knowledge. Then, he applied the new knowledge to make a value judgment about the choices that Malcolm X made in his life with what his mother told him that happened to her in a predominately white high school. The usage of six elaboration activities indicated that Tim used the cognitive elaboration strategy (Weinstein, Woodruff, & Await, 2004) for his reader responses to Walter Dean Myers’ (2000) Malcolm X: A Fire Burning Brightly. Although Tim’s Florida Comprehensive Assessment Test (FCAT) reading score indicated that he was slightly above average, he was not consistent in using the elaboration strategy for reader responses with the other stories. Consequently, the low frequency of using the elaboration strategy with only one story out of nineteen (19) readings was no indication that he understood the thinking process enough to adopt it as a valuable cognitive strategy to perform successfully in other academic settings.

Findings from Written Responses

Although there were four written reader responses out of the nineteen readings, the boys preferred the oral discussions. They made it known to the researcher that when they responded in writing, the activity was too much like the normal school day’s work. In addition, they explained that they wanted to know immediately what their peers thought about the story. This
stated preference was an indication that they enjoyed the relaxed atmosphere of using literature circles (Daniels, 2004) and large group discussions in an after-school reading program. On another level, the finding indicated that the boys viewed the after-school reading program as a social extension of play (Bruner, 1976), not school work and that some boys enjoyed discussing stories aesthetically. Since these African American boys did not consider literature circles and open, large group discussions as “normal” classroom work, perhaps the activities were most appropriate as teachable moments for similar pupils to build relational memories to learn higher-order thinking skills to enhance their reading comprehension (Willis, 2007c). In fact, it was Jerome Bruner (1976) that reminded parents and teachers that children learned best from play. Judy Willis (2006) confirmed scientifically Bruner’s theory. She explained that when the amygdala was relaxed, experiences passed through the circuits easily into the long-term memory brain cells. The thoughts remained in the brain’s long-term memory cell as background knowledge. However, when the environment was stressful these phenomena ceased.

In the study, the researcher had the pupils to write, their reader responses to Langston Hughes’ Thank You M’am as the first activity before the oral discussion of the story. This was done to avoid bias. The researcher wanted to document how well the boys mastered the language arts’ proficiencies prescribed by grade-levels in the Florida Curriculum Framework (1996). Using the written response as a simulated standardized test, the researcher assessed their total educational outcomes for language arts. By doing this first, the written response provided a guide for the entire study. The researcher also used the first written response’s finding to determine if the boys were underperformers in language arts, since their teachers, a guidance counselor, and the Director of Title 1 Parent and Counseling Resource Center chose the population for the study. The technique was successful because the findings from the first
written response indicated that all of the boys were indeed underperformers in language arts. The other three written responses occurred, however, after the large and small group discussions that were recorded and prescribed (Fang, Fu & Lamme, 2003). Yet, the boys preferred to discuss the stories only.

Transcripts were collected and analyzed. After the analyses, the transcripts were grouped after the study ended according to the boys’ *Florida Comprehension Assessment Test* (FCAT) reading levels because they were often analogous to the information processing skills (Duffy, 2003; Pressley, 1993). Second, the findings were grouped by the three cognitive strategies’ activities listed in Table 2-4. Each boy’s reader response was then compared with the appropriate cognitive activity for a tallied finding. Third, the written responses were further analyzed for surface and deep structures using the Meta-Model (Bandler & Grinder, 1975) presented in Tables 4-1, 4-2, and 4-3 to support the findings from oral reader response findings.

The data presented in Tables 4.1, 4-2, and 4.3 were gathered from three written reader responses from *A Game of Catch*, *The Fisherman and His Wife*, and *Two Wise Children*. Each writings occurred after the open-forum, large group discussions. Although the boys indicated a preference for oral reader responses, the problem of writer’s block never occurred during the study. This finding indicated that oral discussion of the stories helped to stimulate ideas for written compositions.

Table 4-1 revealed that Joseph, the artist, could not express himself in written sentences. His artwork, however, tended to suggest he had the mental ability to think using elaboration strategies. Yet, he failed to learn how to write his thoughts in sentences rather than drawing them.
Table 4-2 revealed a different perspective or the fourth grade boys. Dwayne’s, Barry’s, and David’s writings were rather balanced for expressing thought in deep and surface structure, while David in Table 4-3 also presented a similar balance. Collectively, the 4th and 5th grade boys produced a small sample of writings for three stories. Therefore, it was assumed that they spent more time thinking about the stories rather than writing about them.

Richard Bandler and John Grinder’s (1975) Meta-Model criteria for analyzing the language of the boys’ writings were helpful for making assumptions about cognitive functions influenced by personal emotions and experiences. The method based on linguists and language usage analysis for transformational grammar. However, sometimes the vague or ambiguous statements that were *surface structure* were often highly creative African American cultural expressions. Although the *deep structures* that were explicitly stated ideas, according to Bandler and Grinder, they often tended not to express the African American cultural idea well.

However, after the analyses for deep and surface structure, the individual’s tallies were compared with the language arts’ standards and benchmarks for writing in the *Florida Curriculum Frameworks* (1996). From the comparison, the findings indicated that the majority of the boys were writing below proficiency levels.

**Findings from the Eye Movement**

The observations of the eye movement (Payne, 2001) drawings were few. Only three boys were observed as they talked to the researcher. The technique of observing non-verbal clues and cognitive processing involved eye movements to four basic zones: (1) visual, (2) auditory, (3) feeling/kinesthetic, and (4) visual construct. Since the eyes were the only visual extension of the brain the eyes acted as laser beams to retrieve stored information in certain parts of the brain (Restak, 2006).
With unlined paper in the researcher’s lap, arrows drawn left indicated that ideas were being constructed through feelings, while arrows drawn right indicated ideas were remembered. When the arrows pointed upward right, the information was visually remembered. In contrast, when the arrows pointed upward left the information was auditorily constructed. These non-verbal cues helped the researcher

Joseph, the artist, was of special interest to the researcher because he had not learned how to write. As expected his drawings indicated that he visually remembered information. The two other boys’ drawings indicate that they auditorily remembered the classmates discussions of the story.

Summary

It was a challenge to document from literature in the field of education how some African Americans’ learning outcomes were successful academically in spite of the negative social effects on their learning so that others in similar circumstances could imitate them (Du Bois, 1975). In contrast, the scientific literature revealed that humans were cognitively more alike than social institutions wanted to admit or accept (Balter, 2005; Cheng et al., 2005; Graves, 2004). However, children had no control over negative social policies in the society. Hence, the researcher drew upon medical literature in psychiatry (Comer & Poussaint, 1992) and neurology (Restak 2006; Willis, 2006) that complemented the pedagogical approaches of Lev Vygotsky (1962, 1978) and Robert Sternberg (1988) for a theoretical framework conducive epistemologically for a postmodern, post structural paradigm that parents and teachers might use to help underperforming pupils to overcome their shortcomings.

In addition, Claire Weinstein’s (2003) research, utilizing cognitive psychology theory, involved teaching post secondary education students in a southwestern university how to overcome their academic deficiencies by learning certain study strategies to enhance their
learning outcomes. For example, college and high school students would take the *Learning and Study Strategies Inventory* (LASSI) to discover their strengths and weaknesses. Then with an experienced reader as a periodic resource guide, the students would use the *LASSI Instructional Module* on the computer for individualized instruction to acquire the necessary skills to overcome deficiencies pointed out in the LASSI’s ten (10) sub-scales. “Information Processing” was one of the sub-scales that the rural high schools African American boys needed to become cognitively proficient in order to finish high school and to pursue a post secondary education, according to the finding from the “Pilot Study” (Welch, Bowie, & St. Juste, 2004). Since academic learning outcomes depended heavily on the mastery of the “Information Processing” section of the *LASSI Instructional Module*, the module’s authors explained that it was the most important sub-scale to master in order to develop study strategies and skills for academic success (Weinstein, Woodruff, &Await, 2004). The *Florida Curriculum Framework* (1996) was equally designed to give elementary pupils a matrix of “thinking skills” by appropriate grade level to acquire information processing found in the cognitive strategies categories listed in Table 2-4. Therefore, the transcripts of the pupils’ oral reader responses were first group by FCAT Reading Level’s scores for analyses. Based on the interpretation of the contents of the oral reader responses, the researcher determined if the boys used cognitive strategies’ activities for processing the information to create the reader responses listed in Table 2-4. Cognitive strategies used for processing information were the foci because they were vital for academic success (Levine, 2007).

The reader responses grouped in the *Florida Comprehensive Assessment Test* (FCAT) “Reading Level 1” revealed an abundance of the active rehearsal activities utilizing the short-term memory for retelling the story. In addition, some boys retold the story by relying on the
comments of others in the group. Such findings also revealed that they needed more practice acquiring a matrix of “thinking skills” often acquired through reading comprehension skills (Duffy, 2003b). However, the majority of the reader responses grouped in the FCAT “Reading Level 2” also relied heavily on the story method. Usually they reduced the story to a paragraph before discussing a general point-of-view. The boys also commonly revealed the hierarchical relations among characters to point out gender injustices. These incidents revealed that frequent usage of organizational strategy activity that involved using longer-term memories were used only in their oral reader responses. Therefore, the frequency of the longer-term memory was not consistent enough to demonstrate having acquired an organizational strategy. Likewise, the findings in the FCAT Reading Level 3 used the story method by briefly summarizing the plot (active rehearsal strategies’ activities). But, their usage was different from those in FCAT “Reading Levels 1 and 2.” Although they stated the hierarchical comments about the characters’ behavior, the response contained a moral. In addition, the same lower-level thinking skills’ traits were found in their writings as they used surface and deep structures illustrated in Table 2.6.

Finally, FCAT Reading Level 4’s data consisted of only one boy’s responses. Although his reading level was slightly above average, he only used the higher-order thinking skills once in the comparison of two biographies about Martin Luther King. His low frequency usage of elaboration strategies’ activities was not sufficient enough to declare he used the elaboration strategy effectively in response to children’s literature. Consequently, all of the boys in the study’s findings indicated that they needed practice with an intervention program in higher – order thinking because their cognitive strategy was the active rehearsal method from the short-term memory.
According to the literature, information processing of this kind for reading in other academic disciplines would be forgotten, just as most of the details from making meaning of the stories through “the story method.” Details of this kind often did filter through the mygdala to reach the long-term memory cells even in a relaxed state (Willis, 2006). Instead, special attention must be given to the information by manipulating it into other forms in order to embed the information to long-term memory cells. Mel Levine (2002b) aptly described the special attention (organizational and elaboration activities) putting information into the “hard drive” of the human mind.

The frequency tally of the surface structures in Table 4-1 the boys’ individual findings from all of the written responses confirmed the usage of the findings for the oral reader responses created from their short-term memories. From their sentence structures, it seemed that they often thought about the plot, but it was assumed that their inner thoughts were not equally shared with the reader. Consequently, from what they wrote, the researcher interpreted their thoughts based on the clues given in the surface sentences. In contrast, deep structures were few. However, the boys with higher Florida Comprehensive Assessment Test (FCAT) reading level score used more deep structures. For boys that wrote more than others, the researcher had more opportunities to analyze their simple, compound, complex, or complex-compound sentences for surface and deep structures.

The observation of the eye movements (Payne, 2001) drawings of three boys were few to clarify finally decisions as to where their data should be grouped for further analyses.

In conclusion, the findings identified that the boys had one well-developed cognitive strategy, the story method in response to children’s literature. This method was best described as the active rehearsal cognitive strategy that involved using the short-term memory to create a
story or sentence to recall facts. The findings also revealed that although some of the boys were FCAT Reading 3 and 4 they still primarily used the story method to process information. The FCAT Reading Levels 1 and 2, relied on their good listening skills to compensate for poor reading comprehension skills. Good listening skills, however, were also applicable and transferable skills for most academic settings.
Table 4-1: Tally of *Surface* and *Deep Structures* in Written Reader Responses for Grade 3

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Deep Structures</th>
<th>Surface Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mark</td>
<td>6</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>John</td>
<td>9</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>Harry</td>
<td>9</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Tim</td>
<td>9</td>
<td>30</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4-2: Tally of *Surface* and *Deep Structures* in Written Reader Responses in Written Reader Responses for Grade 4

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Deep Structures</th>
<th>Surface Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwayne</td>
<td>10</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Brian</td>
<td>12</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>Andy</td>
<td>10</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Jerome</td>
<td>10</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Donald</td>
<td>10</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Frank</td>
<td>10</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Peter</td>
<td>11</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Barry</td>
<td>10</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Cory</td>
<td>11</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>Tony</td>
<td>3</td>
<td>3</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 4-3: Tally of *Surface* and *Deep Structures* in Written Reader Responses in Written Reader Responses for Grade 5

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Deep Structures</th>
<th>Surface Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tony</td>
<td>11</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Gerald</td>
<td>11</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>David</td>
<td>12</td>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>
CHAPTER 5
CONCLUSIONS AND EDUCATIONAL IMPLICATIONS

When teachers understand learners, that is, when teachers understand developmental processes for literacy proficiency common to all learners and how environmental features and learning styles, varied and diverse, affect learning, then they are better able to design and deliver effective instruction (Empirc, Spanier-Evers, & Hudak, et al., 2001, p. 21).

Neither heredity nor culture is adequate to explain the disparity in cognitive test scores of Black and White Americans (Ogbo & Stern, 2001, p. 32).

Introduction

The thesis of this study was guided by the desire to understand how to achieve educational outcomes for young children that may be experiencing difficulty performing well on psychometric tests. In looking for an answer, the researcher chose the title for the study from the footnote of Supreme Court Justice Clarence Thomas’ opinion in Gratz v. Bollinger. In order to do so, the researcher studied the African American culture as a subculture in the United States and the dominant culture that created it. To accomplish this feat, the researcher chose to study a portion of a population, underperforming African American boys, which performed less well than other test takers. First, in 2003 a Pilot Study was conducted to determine the major academic problem that hindered high school boys from completing their post secondary education. The finding of the Pilot Study indicated that information processing was their major academic weakness. Then, an ethnographic field research was conducted in an urban elementary school in one of the larger school districts in Florida for a case study with 17 underperforming African American boys in grades 3, 4, and 5 in 2005.

Conclusions

The Social Effects on Learning

Fear, stress, and anxiety were part of the human condition. However, when children were subjected to it for whatever reason whether it was racism, gender inequities, homophobia,
poverty, or class, it affected the amygdala in the brain’s cognitive center and thwarted learning (Willis, 2006). It was well documented in the literature that individuals responded to hostile social effects in different ways (Woodson, 1990). Some internalized the stressors as personal failures, while others did not. In that vein, African American boys were capable of learning what other children learned, if they were taught and socialized to do so (Dyson, 2005). However to achieve education outcomes, children needed to be nurtured in academic settings that supported their learning styles and valued them like people of the dominant culture (Richardson, 1990).

During the course of the study, it was noted that the boys needed more reading materials about other young, contemporary African Americans. For example, they prolonged the reading and discussion of *Night Golf*. In additional to the history of how African Americans were denied the right to play golf, they were amazed how Tiger Woods and Vijay Singh had achieved in the sport. On a personal level, they also discussed how they dressed often discussing “the polo”, which was the red sport shirt that Tiger Woods sometimes wore. Although Vijay Singh homeland was Fiji, the boys considered him African American because of the color of his skin. They admired the men and talked about them long after the duration of the after-school reading program. The researcher concluded that a story such as *Night Golf* highly enjoyed; however, the boys were very interested in the personalities of the players as young men that they admired and wanted to imitate. Being exposed to books of this kind would have a profound, positive social effect on the boys’ learning about life.

**Cognitive Processes for Learning**

The children had no control over how standardized tests were often used to support and/or rationalize social policies undergirded with white racism for white privileges (Comer & Poussaint, 1992). Since the parents were the first teachers, they must stop inadvertently teaching
their children how to be docile and in order to honor the social etiquette of white supremacy (Comer & Poussaint, 1992).

The literature, instruments, and the cognitive development theories and practices existed for more than 20 years about how to develop children cognitively. However, poor white children in rural areas were equally denied the tools for cognitive development (Kozol, 1991). Jonathan Kozol aptly described the Lower Price Hill in Cincinnati, Ohio that aptly personified the class structure in America. At the bottom of the hill was the poorest area. The middle of the hill was occupied by working families that were somewhat better off. Farther up the hill were the top, upper income areas. Poor whites were also victims of “savage inequalities” created by the ruling class that created failing schools. Kozol reminded us that it was the ruling class that was accountable for failing schools as indicated by the Supreme Court decision in Rodriguez v. San Antonio Texas. Little was done, however, to remedy the situation. Social conditions of living under stress, fear, and anxiety caused the amygdala in the brain to react to such conditions and blocked out long-term memory for learning (Willis, 2006).

During the spring the boys took the Florida Comprehensive Assessment Test (FCAT), although there were no reading materials about testing and assessment, over their snack-time they discussed among themselves the thought of not passing the FCAT, in fear of not getting promoted. Some of the boys, however, admitted however, they wanted to participate in the after-school reading program in order to strengthen their reading skills. The test was state mandated therefore it was required. However, some of the boys made the connections between the importances of their practicing reading for pleasure. Although it was a stressful time for some underperforming African American boys, they valued the opportunity to participate in the study. Unfortunately, the permanent after-school reading program was for only the girls. The
researcher concluded that the FCAT should be used as a diagnostic tests to assess pupils’ cognitive processes for learning, rather than making it a high-stakes test.

**Reading for Cognitive Development**

Gerald Duffy (2003) studied with Michael Pressley for more than twenty years how to teach reading for cognitive development. In spite of past injustices of denying a subculture to become literate in a highly literate society should no longer be tolerated (Kozol, 2005). In fact, Eric Donald Hirsch, Jr., (2006) explained that reading tests were unfair to certain populations because they actually tested background knowledge of “culture” from which some pupils were denied. For example, to read a passage on a standardized test about a culture that children never experienced or knew anything about automatically caused the readers to lower their reading rate to “figure out” what the passage was saying. In order for the brain to process information with speed on a psychometric test, it must have a frame of reference (Willis, 2006). In that vein, the reading comprehension skills were analogous to the information processing skills needed for completing a post secondary education (Levine, 2002).

The researcher concluded that pupils like the boys who participated in the study needed to be exposed to as many cultural experiences through field trips and other vicarious experiences. Unfortunately, they were denied one opportunity to experience a cultural event that was included in the girls’ after-school reading program as a culminating activity because of their perceived misconduct. However, the boys also must be exposed to many extended-reading activities possible, in order to associate the information from “the printed page” to reality. These experiences not only encouraged pupils to read more, but making connections with the real cultural event would have been a positive cognitive reading development skill-builder. The process would have strengthened their ability to process information for reading and thinking.
Educational Implications

Policy Makers

The *Florida Curriculum Frameworks* (1996) and the Sunshine State Standards were created to overcome inequities of a dual school system, one for whites and one for blacks. However, in some low performing schools all of their academic efforts were spent trying to raise FCAT scores to avoid the disdain of being labeled. For example, the protocol for this ethnographic case study was designed to study the cognitive strategies of African American boys that scored FCAT Reading Levels 1 or 2’s. The boys’ language arts teacher, a guidance counselor, and the Director of Title 1 Parent and Counseling Resource Center chose the participants. On the last day of the study, the researcher went to the guidance counselor’s office for the test scores. The researcher discovered that there were a range of scores, FCAT Reading Levels 1 through 4. In fact, there were only seven boys that had the low scores. However, all of the boys in the study were underperformers. Not surprisingly, the teachers’ insights were better than the FCAT’s indicators. Because of this finding, the researcher questioned the wisdom of spending so much time, effort, and financial resources for high-stakes testing.

The researcher concluded that financial resources would be better spent on providing funds to the State of Florida research universities’ Colleges of Education and their professional development programs to solve the plethora of problems involving years of neglect in some schools. Teachers do not have the time to do the research for best practices. Researchers could assist in these efforts and share their findings through professional development programs.

Teachers and Teacher Educators

Children from low literacy environments would benefit from learning how to develop study strategies because they were the mental processes they must use for reading to learn. Since the African American boys in the study used “the story method”, the oral tradition, they were
using their short-term memories. Instead, they needed to be taught how to process information into their long-term memories. Teaching reading across the curriculum, placing emphasis upon using the organizational and elaboration strategies listed in Table 2-4, Cognitive Strategies Commonly Used for Information Processing also would benefit all pupils with similar problems of underutilizing long-term memories for studying and learning. Specific culturally conscious books to learn cognitive strategies to perform well in academic settings would be insignificant. Duffy (2003) admitted that teaching cognitive strategies was difficult, but it would be helpful to pupils if the technique was incorporated into the reading curriculum.

The researcher concluded that teachers and teacher educators must become more sensitive to the social effect that effects children’s learning negatively, especially those pupils from high crime neighborhoods. Since stress thwarted all children learning, extra care must taken to assure the classroom remained “stress free.” Since the research revealed that pleasant, safe environments were more conducive, educators must also teach the children how to minimize stress in their personal lives as well.

Parents

The researcher concluded that parents would be helpful in developing their positive children’s self-esteem, as indicated in Table 2-5. The psychiatrists James Comer and Alvin Poussaint suggested for parents to love their children and give them the attention that they needed. Books written about people, places, and things that caused stress in their lives (homophobia, poverty, sexism, racism, etc.) would be of interest to African American boys, if they were about their lived experiences. Reading them for a parent/child dialogue would also be quite helpful for scaffolding how to develop a healthy, mature self-esteem indicated in Table 2-5. Reading a variety of books would be most beneficial for reinforcing the reading, studying, and learning strategies that were taught in the language arts classroom and other classes at school.
The researcher further concluded that parents were the first teachers, and children learned positive as well as negative traits at home; therefore, teachers at schools can only hope to build upon the positive behaviors and try to correct the negative ones. However, why burden the teacher with such non-productive social effects that would ultimately hindered the child from learning? Therefore, parents must be mindful of negative environment that effect the child’s learning capacities.

**Conclusion of the Study**

The review of the literature in Chapter 2 for the major stands, “Social Effects on Learning”, “Cognitive Processes for Learning”, and “Reading for Cognitive Development” clearly provided ample discussion of how the underperforming boys in the study were more than likely affected by stress in the cultural environment common to African Americans, in general, and African boys in particular boys living in an inner city neighborhood in Northwest Jacksonville. These social conditions aided the process of hindering the pupils’ academic learning because of the stress..

In addition to being exposed to a stressful negative external neighborhood, the researcher observed some potential negative gender socialization patterns within the school where the study occurred common to the cultural revealed in the review of the literature. For example, there was an established after-school reading established for girls prior to the study. In the after-school reading program, the girls read an abridged version of *Alice in Wonderland*, after which their culminating activities included making decorative invitations for a tea party, learning how to set a table, and practicing how to use appropriate silverware. They were also taught the appropriate wearing apparel for formal and informal teas along with the role of a hostess. Since the boys’ reading program was created for the study, based on the existing after-school reading program, the researcher asked if the boys in the study could participate in one of the girls’ culminating
activities. Unfortunately, the idea was rejected because it was explained that the boys would create discipline problems. It was further explained that all of the girls’ culminating activities were carefully chosen to expose them to cultural events that they might encounter as women. Little thought, however, was given to the fact that mothers also reared boys that needed to be exposed to social ideas expressed on the printed page by foreign and domestic writers. Even Alice’s guests at the tea party in Alice n Wonderland were both male and female! Although some of the reading selections for the boys in the study provided the opportunity for a field trip as a culminating activity, no additional attempt was made for exposing them to additional events outside of the classroom. Since there was only one permanent after-school reading program, it should have been opened to boys and girls.

However, just as Kenneth Kidd’s (2004) Making American Boys was carefully researched and aptly exposed how young boys were socialized in a summer camp setting to become men, the female counterpart to his book also would be helpful to make parents and educators more aware of how stereotypic gender roles were taught, even though they caused some children unnecessary stress. Since the researcher did not observe the participants of the study in their natural classrooms, only a few “outside” observations and assumptions about the setting of the boys’ learning environment were used to base definitive conclusions about the amount stress that they were expressing in their daily routine from their teachers or the other pupils.

However, just as the Alice in Wonderland experience was observed, one other potentially stressful infractions was noted. For example, the participants’ school was a magnet school specializing in foreign languages. However, the composition of the foreign language classes were primarily comprised of European American girls. Consequently, on paper the inner-city school appeared to be integrated when it was still actually segregated according to race and
gender. Since the school district chose to “desegregate” rather than “integrate”, the foreign language classes’ enrollment satisfied the legal requirements of desegregation. However, the presence of pupils at a school with little or no other interactions with the general population was not wholesome for either group, for it extended the idea of racial segregation (Kozol, 2005). Consequently, the magnet school concept did little to destroy racial stereotypic behavior of white supremacy among the majority of the pupil attending the school (Kozol, 2006). Children have no control over the existing conditions described here, however, they were more than likely observed the situation and discussed the same among themselves outside of the school environment. However, the researcher concluded that uneven treatment of children often bred contempt and repressed angry for years to come adding more stressful conditions in their lives because of adults’ racial attitudes to maintain the status quo and gender bias.

Finally, the researcher further concluded that perhaps the most intriguing finding of this study was Joseph, the eight year old artist. It was obvious that he had the capacity to process information visually on a higher-order than all of his classmates; yet he did not express his thoughts in written sentences. In fact, his best reader response was with art using elaboration strategies. Art was a valid reader response; however, drawings were not applicable for most standardized test or all academic settings. Perhaps it was time to bring the neuroscience’s brain research into the classroom. From neuro-imaging and neuroscience, teachers must understand how to activate pupils’ cognitive centers of their brains for effective learning in academic settings.
APPENDIX A
A PILOT STUDY TO IDENTIFY SOME AFRICAN AMERICANS BOYS’ ACADEMIC STRENGTHS AND WEAKNESSES: A DESCRIPTION

In an attempt to increase the number of students to graduate from high school with the prospects of enrolling into post secondary education, the University of Florida’s College Reach-Out Program (CROP) targeted the rural high schools in Alachua County, Florida with an after-school program through the Recruitment, Retention, and Multicultural Affairs Office in the College of Education in order to motivate low-income and educationally disadvantaged students in grades 6-12 (Welch, Bowie, St. Juste, 2004). During the 2002-2003 semesters, the CROP participants’ learning and study strategies for academic settings were observed as a component of a pilot study to determine their academic strengths and weaknesses (Welch, Bowie, & St. Juste, 2004). At the end of the school year, the CROP participants were given the Learning and Study Strategies Inventory-High School Version (LASSI-HS) computer version as the first component of the pilot study, since the computer version gave the student the results of each of the ten (10) subscales.

The second component of the pilot study was to determine the group’s academic strengths and weaknesses according to ten sub-scales (attitudes, motivation, time management, anxiety, concentration, information processing, selecting main ideas, study aids, self testing, and test strategies). Of special interest were the African American boys’ academic weaknesses, since historically their enrollment into the University was less than the African American girls. In addition, the after-school’s program director also needed to know which skills the group needed to strengthen in order for all of the CROP participants to finish high school. The Inventory’s findings were helpful for the director to design individualized intervention programs (Welch, Bowie, St. Juste, 2004). Therefore, the inventory’s results were analyzed to determine the groups’ strengths and weaknesses.
The African Americans’ scores (eleven males and nine females) were further isolated for analysis by gender (Welch, Bowie, St. Just, 2004). Significantly, the findings of the score-patterns by gender were different. The African American girls’ strengths were in *self-testing* and *test strategies*, while their weaknesses were on the *anxiety* and *attitude* subscales. In contrast, the African American boys’ strengths were in three areas: *concentration, study aids*, and *time management*, with *test strategies* and *information processing* as their weaknesses. Of the two academic weaknesses, *information processing* was greater for the African American males. When the *information processing* scores were compared with the females, the males’ *information processing* scores were lower (Welch, Bowie, & St. Juste, 2004). For example, if students scored below 50% on any of the LASSI-HS subscales, they needed to improve their skills for that subscale to avoid problems succeeding with academic work (Weinstein, Woodruff, & Await, 2004).

Significantly, the African Americans’ score-patterns indicated that they needed instructional intervention in *information processing* because it was a crucial skill for completing high school successfully with a diploma in general and for performing well on standardized tests in particular (Weinstein, Woodruff, & Await, 2004). Thus, the second component of the pilot study yielded empirical data to support the idea that some African American boys in high school needed instructional invention to help them to acquire skills in *information processing* (Welch, Bowie, & St. Juste, 2004).

The third component of the pilot study involved reviewing the ten instructional modules that were designed to complement each of the subscales of the LASSI-HS, after which the *information processing* module was analyzed to determine the skills that underperforming African American boys needed to acquire (Welch, Bowie, & St. Just, 2004). Since the
*information processing* subscale assessed how well students used imagery, verbal elaboration, organization strategies, and reasoning skills as learning strategies to help build bridges between what they already knew and what they were trying to learn and remember (Weinstein, Woodruff, & Await, 2004), the instructional module emphasized how to develop cognitive skills and study strategies that were also analogous with reading comprehension skills (Duffy, 2003; Pressley, 1993). Hence, the third component of the pilot study revealed that students could acquire information-processing skills and study strategies from learning reading comprehension skills (Duffy, 2003; Pressley, 1993), if they read well to learn (Chall, 1996).

Since the National Assessment Educational Progress (NAEP), tested elementary school children’s reading comprehension at grade 4, the teaching of information-processing skills in an early intervention program would be most effective for some African American elementary school boys (Feuerstein, 1980, 1988; Duffy, 2003). Thus, the pilot study’s findings confirmed one of Christopher Jencks’ and Meredith Phillips’ (1998) assumptions that lack of cognitive skills and strategies was an academic weakness in pre-K-3 grades. This acknowledgement encouraged the researcher to focus on one cognitive deficiency, *information processing*, for further study. By analyzing reader responses transcripts of children’s literature from African American boys in grades 3, 4, and 5, the researcher determined which of the information-processing skills that manifested in their *cognitive strategies activities* repertoire were being used to generate reader responses. Depending on the boys’ frequency of the *cognitive strategies activities* indicated a developed *cognitive strategy* for processing information from text, a vital skill in academic settings for reading to learn (Chall, 1996).
APPENDIX B
AMERICAN PSYCHOLOGICAL ASSOCIATION TASK FORCE’S REPORT ON INTELLIGENCE “KNOWN FACTS” AND UNKNOWN “ISSUES” FROM THE SEVEN CONCLUSION STATEMENTS

The parsing of the Task Force’s seven (7) concluding statements yielded twelve (12) “known facts” with a combination of nine (9) “unknown issues” that were unresolved and/or unanswered about intelligence. The list of known findings was based on a “. . . near-century of research . . . [that used] psychometric methods” (Neisser et al., 1996, p. 97).

Known Facts

The following were the known facts embedded within the seven (7) conclusion statements:

1. Genetic endowment contributed to individual differences in psychometric intelligence.
2. Environmental factors contributed substantially to the development of intelligence.
3. School attendance and the quality of instruction were important for the development of intelligence.
4. Even though the role of nutrition remained obscure, severe childhood malnutrition had clear negative effects on the development of intelligence.
5. Significant correlations existed between the measures of information-processing speed and psychometric intelligence.
6. Mean scores’ differentials on intelligence tests of Blacks and Whites was about one standard deviation (15 points).
7. Mean scores on intelligence tests rose 15 points in the last 50 years.
8. The differential between the mean intelligence test scores of Blacks and Whites did not result from any obvious biases in test construction and administration.
9. The differential between the mean intelligence test scores of Blacks and Whites did not simply reflect differences in socioeconomic status.
10. Little direct empirical research existed to support factors based on caste and culture, although they may be appropriate, to cause the differential between
the mean intelligence test scores of Blacks and Whites.

11. No genetic interpretation existed to explain the differential between the mean intelligence test scores of Blacks and Whites.

12. Standardized tests did not sample all forms of intelligence (creativity, wisdom, practical sense, and social sensitivity) (Neisser et al., 1996).

Unknown Issues

The American Psychological Association’s (APA) Task Force debate on Intelligence reported the following “unknown issues” stated within its seven conclusion statements:

1. the pathway by which genes produced their effects on individual differences in psychometric intelligence test;

2. why the impact of genetic differences appeared increased with age;

3. a clear understanding of how environmental factors affected the development of intelligence;

4. a convincingly demonstrated hypothesis to prove that particular micronutrients affected intelligence in adequately-fed populations;

5. an easy, theoretical interpretation for the overall pattern of the significant correlations between measures of information-processing speed and psychometric intelligence;

6. why the mean scores on intelligence tests increased 15 points over the last 50 years;

7. what caused the differential between the mean intelligence test scores of Blacks and Whites;

8. how the other forms of intelligence were developed, what factors influenced their development, and how they were related to the mean scores on intelligence tests; and,

9. what aspects of schooling were critical to the development of intelligences (Neisser et al., 1996).

The Task Force also predicted that the neural and biological bases of intelligence would be further expanded with the advances in research methods with brain imaging instruments, so that
“... some aspects of [the] test performance related to [a] specific characteristics of the brain ['s] function” (Neisser et al., 1996, p. 80) would help to clarify and/or answer the unknown and unresolved issues.
APPENDIX C
INTERVIEW GUIDE FOR THREE COGNITIVE LENSES IN FIGURE 3-1

Active Rehearsal Strategies: Short-term Memory

1. Thought Processes
   a. As you were reading, what were you thinking?
   b. As you were reading, how did you feel about certain parts of the story?
   c. While you were reading, did any parts of the story remind you of something in the past?
   d. What part of the story did you like? Why?

2. Memory of the details
   a. As you were reading, what part of the story did you remember most?
   b. While you were reading, did the characters do something or say something that was a new experience for you?
   c. What did you have in mind to make you remember; the events of the story?

3. Memory of the details
   a. Did you like this story? Why?
   b. What would you like to remember most about this story? What impressed you most?
   c. If you were asked to explain next week to tell this story to the class how would you do it?
   d. Without using the book itself, what would you use to help to explain the story?

4. Organizational Strategies: Longer-Term Memory
   a. What would you do as a visual aid to explain the story? Give me an example by using your favorite story?
   b. Could you outline the events of the characters’ actions for teaching it to a younger child?
   c. If you wanted to study the details of the story you just read without reading it again what would you do?
LIST OF REFERENCES


Helms, J. (1992). A race is a nice thing to have: A guide to being a white person or understanding the white persons in your life. Topeka, KS: Content Communications.


Jarmon, B. (2003). What it takes to be successful on standardized tests: GRE, GMAT, LSAT, and MCAT. In V. Farmer (Ed.), The black student’s guide to graduate and professional school success (pp. 30-38). Westport, CT: Greenwood.


Sue, D. (1992). Surviving monoculturalism and racism: A personal and professional journey. In J. Helms (Ed.), A race is a nice thing to have: A guide to being a white person or understanding the white person in your life, (pp. 45-54). Topeka, KS: Content Communications.


*The progress of education reform: Closing the achievement gap* (2003) 4(1). Denver, CO: Education Commission of the States (ECS). ecs@ecs.org


Trites, R. *Disturbing the universe: power and repression in adolescent literature.* Iowa City: University of Iowa.


Children’s Books


BIOGRAPHICAL SKETCH

The researcher’s personal biography may be referenced in Marquis Who’s Who in American @marquiswhoswho.com.

However, this biographical sketch was presented to explain the influence of the study and research at the University of Florida. When the late Governor Lawton Chiles wanted educational reform, State Senator Betty Holzendorf was Chair of Education Committee in the Senate, and Willye Dennis was Chair of Education in the House of Representatives. The Jacksonville elected officials were the researcher’s elected representatives. Gov. Childs wanted the three of them to have townhouse meetings throughout the state to inform the public of his plan for educational reform. For the first townhouse meeting in Jacksonville, FL, the researcher supplied Dennis with some basic research for the televised meeting. Feedback from the town hall meetings, however, indicated that the State of Florida had a variety of problems and that to solve them would require more than a series of meetings. Since the researcher had a background in Liberal Arts and Sciences, she began to wonder how educators and teacher-educators would solve some of the issues.

While working for Florida Institute of Technology (FIT) in 1998-99 as a State DOE grant’s technical assistant for helping school districts in 13 counties to align their curricula with the Florida Curriculum Framework (1996), the field office at Bethune Cookman College discovered that high-stakes testing was going to be mandated; therefore, the Volusia County School District was going to become a Charter School District. It was also predicted that Jacksonville would have the largest number of low performing schools and that the researcher should go to the University of Florida, the research institution, to discover a possible solution.

In the summer of 2000, the researcher enrolled as a non-degree seeking student. The School of Teaching and Learning Department Chair told the researcher that she could no longer
register as a non-degree seeking student even though she had a Bachelor of Arts in English, Master of Art in English, and the Doctor of Philosophy in African Studies. Without hesitation, the researcher complied and declared in the College of Education in the School of Teaching and Learning as a major, Curriculum of Instruction, in order to continue the research.

The results of her research from 2000 to 2007 were written as a doctoral dissertation entitled “Cognitive Strategies of Underperforming African American Boys in Response to Children's Literature” with Drs. Linda Lamme, Chair and Ruth Lowery, Co-chair. The Committee members included Drs. Danling Fu and Kenneth Kidd, the English professor from the College of Liberal Arts of Sciences. At the end of the Pilot Study in 2003, Dr. Kidd and the researcher agreed that the findings of the Pilot Study be written as a dissertation. He agreed that was enough! However, during the qualification exam to become a Doctoral Candidate, the plan was not to be. Drs. Fu and Lowery both agreed that race and racism should not be overlooked, as a “minor” social problem, but as a major one. Therefore, it must go first in the outline; hence I combined their ideas and comments from the qualifying examination which prolonged the study.

The researcher saw the connection from a “strange place.” The writings of Dr. Kenneth Kidd and the background information that Dr. Rose Pringle about cognitive psychology was used to learn from the resident doctors at the University of Shands in Jacksonville about the brain, memory, and learning. After having looked for the literacy connection with multiculturalism, the researcher worked through the problem of literacy and discovered the “science of learning” was neuroscience, while teaching was an art. Drawing heavily on the neurologist’s and classroom teacher Judy Willis’ research, it was documented how stress affected the memory for studying and learning. Hence, this document became the culmination of seven years of study.