1-1-2009

An examination of changes in classroom teacher behaviors when implementing an individualized Behavior Support Plan for a preschooler with challenging behavior

Cecile Gleason

University at Albany, State University of New York, cecile.gleason@gmail.com

The University at Albany community has made this article openly available. Please share how this access benefits you.

Follow this and additional works at: https://scholarsarchive.library.albany.edu/legacy-etd

Part of the Educational Psychology Commons

Recommended Citation

https://scholarsarchive.library.albany.edu/legacy-etd/41

This Dissertation is brought to you for free and open access by the The Graduate School at Scholars Archive. It has been accepted for inclusion in Legacy Theses & Dissertations (2009 - 2024) by an authorized administrator of Scholars Archive. Please see Terms of Use. For more information, please contact scholarsarchive@albany.edu.
An Examination of Changes in Classroom Teacher Behaviors
When Implementing an Individualized Behavior Support Plan
For a Preschooler with Challenging Behavior
By
Cecile Gleason

A Dissertation
Submitted to the University at Albany, State University of New York
In Partial Fulfillment of
The Requirements for the Degree of
Doctor of Philosophy
School of Education
Department of Educational and Counseling Psychology
Division of Educational Psychology and Methodology
2009
An Examination of Changes in Classroom Teacher Behaviors

When Implementing an Individualized Behavior Support Plan

For a Preschooler with Challenging Behavior

by

Cecile Gleason

COPYRIGHT 2009
An Examination of Changes in Classroom Teacher Behaviors When Implementing an Individualized Behavior Support Plan for a Preschooler with Challenging Behavior

Cecile Gleason

University at Albany, State University of New York, 2009

Dissertation Chairperson: Kevin Quinn

ABSTRACT

This embedded case study focused on the behavior and attitudes of four members of an early childhood teaching team carrying out a Behavior Support Plan (BSP) in a Head Start classroom. The investigator examined the extent to which teachers implemented the BSP, the relationship between teacher behaviors and changes in child behaviors, the extent to which teacher fidelity changed after coaching, teachers’ views on the feasibility and value of the behavior strategies they were asked to carry out, and to what extent professional development supports for teachers were considered helpful. Research and experiences in the field have demonstrated that young children who present with problem behaviors are more likely to be at risk for long term negative outcomes, including emotional behavior disorder, school failure, and difficulties with relationships and community life. These are serious consequences and therefore in recent years much attention has been given to a set of evidence-based strategies that address children’s behavioral needs known collectively as Positive Behavior Support (PBS). Implementing effective PBS, including behavior support strategies, is complex and time-consuming, requiring a level of expertise that is not typically part of the background and training of early childhood staff. Previous studies have examined implementation and found that teachers lack fidelity when carrying out behavior support plans. Research has also
indicated that professional development supports may improve teacher fidelity when carrying out new interventions. The purpose of this embedded case study was to examine teacher behaviors when implementing a BSP for a preschooler with challenging behaviors at Head Start when they received additional professional development support in the form of coaching. Findings indicated that, as expected, teachers only partially implemented BSP strategies. What was not predicted, however, was the wide range of fidelity levels across teachers. Teachers were very different in the degree to which they initially carried out the BSP and in their responses to coaching. Several factors appeared to be associated with varied implementation levels, including the teachers’ roles on the classroom team, teachers’ attitudes towards the child and the BSP strategies, and their relationships with the child. Implications for practice and research are discussed.
ACKNOWLEDGEMENTS

I would like to gratefully acknowledge the following people for their kind support over the past four years;

To my husband Bob, thank you for your constant love, patience, and positive attitude;

To my children, thank you for your steadfast support and spirited enthusiasm;

To my dear friend Mary Garrett, thank you for your practical advice, your loving belief in me, and your commitment to children and families;

To my Committee, Kevin Quinn, Frank Vellutino, and Melinda Tanzman, thank you for your guidance and scholarship, your goodwill and wit, and your commitment to excellence;

To my advisor, Deborah May, thank you for inviting me to apply to the program so long ago and for your friendship and encouragement throughout;

To Paul, Lara, and my colleagues at Capital District Beginnings, thank you for graciously allowing me the time and giving me the support to wear several hats for the past few years.

I could not have completed my doctoral work without you. Thank you all.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE PAGE</td>
</tr>
<tr>
<td>COPYRIGHT PAGE</td>
</tr>
<tr>
<td>ABSTRACT</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
</tr>
<tr>
<td>APPENDIXES</td>
</tr>
<tr>
<td>CHAPTER ONE</td>
</tr>
<tr>
<td>Behavior Problems in Young Children</td>
</tr>
<tr>
<td>Prevalence and Trajectory</td>
</tr>
<tr>
<td>Definition for Challenging Behavior and Social Competence</td>
</tr>
<tr>
<td>Challenging Behavior</td>
</tr>
<tr>
<td>Social Competence</td>
</tr>
<tr>
<td>Risk Factors</td>
</tr>
<tr>
<td>Child and Family Characteristics as Risk Factors</td>
</tr>
<tr>
<td>Poverty as a Set of Environmental Risk Factors</td>
</tr>
<tr>
<td>Head Start – Ameliorating the Risk Factors Associated with Poverty</td>
</tr>
<tr>
<td>Early Identification</td>
</tr>
<tr>
<td>Early Identification and Screening</td>
</tr>
<tr>
<td>Early Identification and Children with Special Needs</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Intervention ................................................................. 13</td>
</tr>
<tr>
<td>Positive Behavior Support .................................................. 15</td>
</tr>
<tr>
<td>The Individual and PBS ...................................................... 15</td>
</tr>
<tr>
<td>School-Wide PBS: A Three-Tier Model ...................................... 16</td>
</tr>
<tr>
<td>Evidence-Base for PBS ...................................................... 19</td>
</tr>
<tr>
<td>Functional Behavior Assessment .............................................. 20</td>
</tr>
<tr>
<td>FBA and Behavior Support Planning ......................................... 21</td>
</tr>
<tr>
<td>Evidence-Base for FBA ..................................................... 22</td>
</tr>
<tr>
<td>PBS and FBA in the Preschool Classroom .................................. 23</td>
</tr>
<tr>
<td>Implementing PBS &amp; FBA ........................................................ 23</td>
</tr>
<tr>
<td>Barriers to Implementing Positive Behavioral Supports ............... 25</td>
</tr>
<tr>
<td>Complexity of Behavior Change .............................................. 25</td>
</tr>
<tr>
<td>Teacher Attitudes ............................................................. 25</td>
</tr>
<tr>
<td>Teacher Preparation and Professional Development ................. 27</td>
</tr>
<tr>
<td>Summary of Barriers to Effective Implementation .......... 29</td>
</tr>
<tr>
<td>Challenging Behavior and Effective PBS Implementation .............. 29</td>
</tr>
<tr>
<td>CHAPTER TWO: REVIEW OF THE LITERATURE ................................ 32</td>
</tr>
<tr>
<td>Social Competence and Challenging Behavior ............................... 32</td>
</tr>
<tr>
<td>Early Development and Social Emotional Capacities ..................... 33</td>
</tr>
<tr>
<td>Capacities and Typical Development ......................................... 34</td>
</tr>
<tr>
<td>Social Competence ............................................................. 35</td>
</tr>
<tr>
<td>Development of Theory of Mind and Relatedness ................. 36</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS

Page

Coping.................................................................38
Self Regulation.......................................................39
Culture and Social Competence............................39
Measuring Social Competence...............................40
Social Competence and Construct Validity.................41
Relationship between Social Competence and Challenging Behaviors ........................................42
Challenging Behaviors..............................................43
Prevalence of Challenging Behaviors.........................44
Risk Factors ...........................................................48
Child Factors.........................................................48
Family Factors.......................................................52
Environmental Factors............................................54
Summary of Risk Factors.........................................57
Developmental Trajectory and Outcomes......................58
Intervention: Addressing Challenging Behavior ............59
Positive Behavioral Support: Background and Definitions ....59
Contributions to PBS from Applied Behavior Analysis ....61
Contributions to PBS from Person-Centered Planning and Values .........................................................66
Summary of Background and Definition for PBS ...........68
Positive Behavioral Support: School-Wide Model ...........69
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Content</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Requirements</td>
<td>70</td>
</tr>
<tr>
<td>Problem-Solving Framework: The Three-Tier Model</td>
<td>72</td>
</tr>
<tr>
<td>Availability of Research-Based Methodologies</td>
<td>72</td>
</tr>
<tr>
<td>School-Wide Positive Behavioral Support: Details of a School-Age Behavior Model</td>
<td>74</td>
</tr>
<tr>
<td>Tier-One: Universal Primary Interventions</td>
<td>74</td>
</tr>
<tr>
<td>Tier-Two: Secondary Prevention Interventions</td>
<td>75</td>
</tr>
<tr>
<td>Tier-Three: Tertiary Prevention</td>
<td>75</td>
</tr>
<tr>
<td>Preschool Positive Behavioral Support</td>
<td>76</td>
</tr>
<tr>
<td>Characteristics of Effective Positive Behavioral Support Models</td>
<td>80</td>
</tr>
<tr>
<td>Functional Behavior Assessment (FBA)</td>
<td>82</td>
</tr>
<tr>
<td>Functional Behavior Assessment Outcomes</td>
<td>82</td>
</tr>
<tr>
<td>Functional Behavior Assessment Procedures</td>
<td>86</td>
</tr>
<tr>
<td>Behavior Support Planning (BSP)</td>
<td>89</td>
</tr>
<tr>
<td>PBS and the Role of Teachers</td>
<td>91</td>
</tr>
<tr>
<td>Supporting Teachers</td>
<td>91</td>
</tr>
<tr>
<td>Teacher Qualities</td>
<td>92</td>
</tr>
<tr>
<td>Attitudes and Beliefs</td>
<td>92</td>
</tr>
<tr>
<td>Teacher Qualifications</td>
<td>97</td>
</tr>
<tr>
<td>School Organization and Positive Behavior Supports</td>
<td>99</td>
</tr>
<tr>
<td>Building a School-Wide Vision</td>
<td>100</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting the Development of PBS Skills for Teachers</td>
<td>100</td>
</tr>
<tr>
<td>Positive Behavior Support and Professional Development for Teachers</td>
<td>102</td>
</tr>
<tr>
<td>Recommended Practices in Professional Development</td>
<td>103</td>
</tr>
<tr>
<td>Professional Development Models and Positive Behavior Support</td>
<td>105</td>
</tr>
<tr>
<td>Application of PBS in Early Childhood Settings</td>
<td>106</td>
</tr>
<tr>
<td>Positive Behavior Support and Professional Development for Teachers Summary</td>
<td>108</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>108</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>110</td>
</tr>
<tr>
<td>Research Questions and Propositions</td>
<td>111</td>
</tr>
<tr>
<td>CHAPTER THREE: METHODOLOGY</td>
<td>113</td>
</tr>
<tr>
<td>Case Study Design</td>
<td>113</td>
</tr>
<tr>
<td>Setting</td>
<td>114</td>
</tr>
<tr>
<td>Head Start Center</td>
<td>114</td>
</tr>
<tr>
<td>The Role of Researcher</td>
<td>114</td>
</tr>
<tr>
<td>Curriculum</td>
<td>115</td>
</tr>
<tr>
<td>Staffing</td>
<td>115</td>
</tr>
<tr>
<td>Referral Procedures</td>
<td>116</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants ........................................................................................................... 117</td>
</tr>
<tr>
<td>Teachers ................................................................. 117</td>
</tr>
<tr>
<td>Child ........................................................................ 118</td>
</tr>
<tr>
<td>Embedded Case Study ................................................................. 119</td>
</tr>
<tr>
<td>The Researcher as Participant Observer .................. 120</td>
</tr>
<tr>
<td>The Five Components of Case Study Design .......... 121</td>
</tr>
<tr>
<td>Trustworthiness in Case Study Design ......................... 125</td>
</tr>
<tr>
<td>Prolonged Engagement and Persistent Observation ...... 126</td>
</tr>
<tr>
<td>Triangulation................................................................. 127</td>
</tr>
<tr>
<td>Member Checking............................................................. 128</td>
</tr>
<tr>
<td>Clarifying Researcher Bias ............................................. 129</td>
</tr>
<tr>
<td>Thick Description............................................................. 130</td>
</tr>
<tr>
<td>Audit Trail........................................................................ 131</td>
</tr>
<tr>
<td>Social Validity ................................................................. 132</td>
</tr>
<tr>
<td>Generalizability................................................................. 133</td>
</tr>
<tr>
<td>Procedure ..................................................................................... 133</td>
</tr>
<tr>
<td>Preliminary Steps ................................................................. 133</td>
</tr>
<tr>
<td>Functional Behavior Assessment ..................................... 134</td>
</tr>
<tr>
<td>Behavior Support Plan ............................................................. 135</td>
</tr>
<tr>
<td>Professional Development Support for Teachers .......... 135</td>
</tr>
<tr>
<td>Schedule and Three Phases of the Study ......................... 136</td>
</tr>
<tr>
<td>Instrumentation ................................................................. 138</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Behavior Assessment Instruments and Forms ................................................................. 139</td>
</tr>
<tr>
<td>Behavior Support Plan Assessment Instruments .......... 142</td>
</tr>
<tr>
<td>Teacher Professional Development Instruments ........ 143</td>
</tr>
<tr>
<td>Data Collection and Analysis ................................................................. 143</td>
</tr>
<tr>
<td>Preliminary Activities Phase .................................................. 143</td>
</tr>
<tr>
<td>FBA and BSP Planning Phase ............................................. 143</td>
</tr>
<tr>
<td>Intervention Phase .............................................................. 144</td>
</tr>
<tr>
<td>Two Levels of Data Analysis ........................................... 144</td>
</tr>
<tr>
<td>Coding Classroom Observation Notes ......................... 145</td>
</tr>
<tr>
<td>Meeting Notes ..................................................................... 148</td>
</tr>
<tr>
<td>Summary ........................................................................... 148</td>
</tr>
<tr>
<td>CHAPTER FOUR: RESULTS ................................................................. 150</td>
</tr>
<tr>
<td>Results from the Functional Behavior Assessment ................. 152</td>
</tr>
<tr>
<td>FBA Teacher Interview and Observation Results ........... 152</td>
</tr>
<tr>
<td>Child Behavior Rating Scales Results ......................... 156</td>
</tr>
<tr>
<td>The Preschool and Kindergarten Behavior Scales, Revised (Merrell, 2002) ..................................... 156</td>
</tr>
<tr>
<td>The Motivation Assessment Scale (MAS) (Durand &amp; Crimmins, 1992) ........................................ 159</td>
</tr>
<tr>
<td>Parent Observations and Concerns ........................................ 160</td>
</tr>
<tr>
<td>Strengths ......................................................................... 160</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerns</td>
<td>160</td>
</tr>
<tr>
<td>The Behavior Support Plan</td>
<td>161</td>
</tr>
<tr>
<td>Developing the Behavior Support Plan</td>
<td>162</td>
</tr>
<tr>
<td>Changes to the Draft Version of the BSP:</td>
<td></td>
</tr>
<tr>
<td>Eliminating Suggestions for Structural Changes</td>
<td>164</td>
</tr>
<tr>
<td>Changes to the Draft Version of the BSP:</td>
<td></td>
</tr>
<tr>
<td>Adding the Use of the Timer</td>
<td>165</td>
</tr>
<tr>
<td>Teachers’ Work Plan</td>
<td>166</td>
</tr>
<tr>
<td>Final Version of Behavior Support Plan</td>
<td>168</td>
</tr>
<tr>
<td>Research Question Results</td>
<td>170</td>
</tr>
<tr>
<td>Question One: To what degree do teachers implement behavioral support strategies that are part of a positive behavioral support plan?</td>
<td>170</td>
</tr>
<tr>
<td>Results for Teacher Demographics Checklist</td>
<td>170</td>
</tr>
<tr>
<td>Teacher Behaviors in Overview</td>
<td>170</td>
</tr>
<tr>
<td>Teacher Implementation of Specific BSP Strategies</td>
<td>174</td>
</tr>
<tr>
<td>Learning Environment Assessment</td>
<td>182</td>
</tr>
<tr>
<td>Summary of Question One</td>
<td>183</td>
</tr>
<tr>
<td>Question Two: To what degree are changes in child behavior related to teacher implementation of the behavior support plan?</td>
<td>184</td>
</tr>
<tr>
<td>Changes in Child Behavior</td>
<td>184</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in Child Behavior and Implementation</td>
<td>187</td>
</tr>
<tr>
<td>of BSP</td>
<td></td>
</tr>
<tr>
<td>Summary of Question Two</td>
<td>188</td>
</tr>
<tr>
<td>Question Three: To what degree are changes in Teacher behavior related</td>
<td>189</td>
</tr>
<tr>
<td>to professional support?</td>
<td></td>
</tr>
<tr>
<td>Coaching</td>
<td>191</td>
</tr>
<tr>
<td>Results</td>
<td>192</td>
</tr>
<tr>
<td>Summary of Question Three</td>
<td>194</td>
</tr>
<tr>
<td>Question Four: Which behavioral strategies are considered important</td>
<td>194</td>
</tr>
<tr>
<td>and feasible and which kinds of professional development supports are</td>
<td></td>
</tr>
<tr>
<td>viewed as helpful by teachers?</td>
<td></td>
</tr>
<tr>
<td>Attitudes Towards the BSP</td>
<td>194</td>
</tr>
<tr>
<td>Attitudes Towards Professional Development</td>
<td>201</td>
</tr>
<tr>
<td>Summary of Question Four</td>
<td>204</td>
</tr>
<tr>
<td>Summary</td>
<td>204</td>
</tr>
<tr>
<td><strong>CHAPTER FIVE: DISCUSSION</strong></td>
<td>207</td>
</tr>
<tr>
<td>Question One: Behavior Support Plan Implementation</td>
<td>207</td>
</tr>
<tr>
<td>Summary of Results Related to Strategies Implementation</td>
<td>209</td>
</tr>
<tr>
<td>Factors Related to Partial Implementation</td>
<td>210</td>
</tr>
<tr>
<td>Type of Strategy as a Factor</td>
<td>210</td>
</tr>
<tr>
<td>Familiarity as a Factor</td>
<td>212</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differences in Teacher Characteristics as a Factor</td>
<td>213</td>
</tr>
<tr>
<td>Summary of Factors Related to BSP Implementation</td>
<td></td>
</tr>
<tr>
<td>Levels</td>
<td>219</td>
</tr>
<tr>
<td>Question Two: The Relationship between Child and Teacher</td>
<td>220</td>
</tr>
<tr>
<td>Hitting</td>
<td>221</td>
</tr>
<tr>
<td>Noncompliance</td>
<td>224</td>
</tr>
<tr>
<td>Summary Regarding Changes in Child Behaviors</td>
<td>226</td>
</tr>
<tr>
<td>Changes in Child Behavior Related to Teacher</td>
<td>227</td>
</tr>
<tr>
<td>Question Three: Teacher Behavior and Professional Development</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>228</td>
</tr>
<tr>
<td>Teacher Behaviors and Professional Development</td>
<td>229</td>
</tr>
<tr>
<td>Teacher Roles and Individual Differences as Factors</td>
<td>230</td>
</tr>
<tr>
<td>Teacher Roles</td>
<td>230</td>
</tr>
<tr>
<td>Teacher Differences</td>
<td>231</td>
</tr>
<tr>
<td>Rival Explanations</td>
<td>233</td>
</tr>
<tr>
<td>Summary of Changes in Teacher Behavior Related to Professional</td>
<td>235</td>
</tr>
<tr>
<td>Development Support</td>
<td></td>
</tr>
<tr>
<td>Question Four: Teacher Attitudes</td>
<td>236</td>
</tr>
<tr>
<td>Teacher Attitudes towards the Behavior Support Plan</td>
<td>238</td>
</tr>
<tr>
<td>The Influence of Teacher Roles and Teacher Attitudes</td>
<td>238</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis on Addressing the Most Concerning Behaviors</td>
<td>239</td>
</tr>
<tr>
<td>Teacher Attitudes towards Professional Development Supports</td>
<td>240</td>
</tr>
<tr>
<td>The Importance of Relationships and Teaming</td>
<td>241</td>
</tr>
<tr>
<td>Summary Regarding Teacher Attitudes</td>
<td>241</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>242</td>
</tr>
<tr>
<td>Implications for Practice</td>
<td>243</td>
</tr>
<tr>
<td>Future Research</td>
<td>246</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>248</td>
</tr>
<tr>
<td>APPENDIXES</td>
<td>282</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Development of Social Competence, Empathy, and Caring Behavior</td>
<td>37</td>
</tr>
<tr>
<td>2.2</td>
<td>Four-Term Contingency Model</td>
<td>63</td>
</tr>
<tr>
<td>4.1</td>
<td>Behaviors of Concern Identified Through the FBA</td>
<td>153</td>
</tr>
<tr>
<td>4.2</td>
<td>Hypotheses about the Behaviors of Concern</td>
<td>156</td>
</tr>
<tr>
<td>4.3</td>
<td>PKBS-2 (Merrell, 2002) School Rater</td>
<td>157</td>
</tr>
<tr>
<td>4.4</td>
<td>PKBS-2 (Merrell, 2002) Home Rater</td>
<td>158</td>
</tr>
<tr>
<td>4.5</td>
<td>Motivation Assessment Scale (MAS) (Durand &amp; Crimmins, 1992)</td>
<td>159</td>
</tr>
<tr>
<td>4.6</td>
<td>Behavior Support Plan – Draft Version</td>
<td>163</td>
</tr>
<tr>
<td>4.7</td>
<td>Teachers’ Work Plan – Final Version</td>
<td>167</td>
</tr>
<tr>
<td>4.8</td>
<td>Behavior Support Plan (Final Version)</td>
<td>169</td>
</tr>
<tr>
<td>4.9</td>
<td>Teacher Behaviors during FBA and BSP Observations</td>
<td>172</td>
</tr>
<tr>
<td>4.10</td>
<td>Behavior Support Plan (BSP) Strategy Implementation by Teacher and Strategy-Type</td>
<td>177</td>
</tr>
<tr>
<td>4.11</td>
<td>Child Behaviors during the FBA and BSP Observations</td>
<td>185</td>
</tr>
<tr>
<td>4.12</td>
<td>Pre/Post Coaching BSP Strategies: Prevention</td>
<td>190</td>
</tr>
<tr>
<td>4.13</td>
<td>Pre/Post Coaching BSP Strategies: Teaching</td>
<td>190</td>
</tr>
<tr>
<td>4.14</td>
<td>Pre/Post Coaching BSP Strategies: Responding</td>
<td>191</td>
</tr>
<tr>
<td>4.15</td>
<td>BSP Acceptability Rating Form</td>
<td>195</td>
</tr>
<tr>
<td>4.16</td>
<td>Behavior Strategy Rating Scale – Prevention</td>
<td>198</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.17</td>
<td>Behavior Strategy Rating Scale – Teaching</td>
<td>197</td>
</tr>
<tr>
<td>4.18</td>
<td>Behavior Strategy Rating Scale – Responding</td>
<td>198</td>
</tr>
<tr>
<td>4.19</td>
<td>Rank Order of Statements Regarding Professional Development by Teachers</td>
<td>199</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>School Wide Positive Behavior Support (PBS)</td>
</tr>
<tr>
<td>1.2</td>
<td>Preschool Positive Behavior Support (PBS) Model</td>
</tr>
<tr>
<td>2.1</td>
<td>Integration of Academic and Social Behavior Three-Tiered Continuum of Behavior Support</td>
</tr>
<tr>
<td>2.2</td>
<td>The Teaching Pyramid</td>
</tr>
<tr>
<td>2.3</td>
<td>Preschool Positive Behavior Support Pyramid Model</td>
</tr>
<tr>
<td>2.4</td>
<td>Defining the Problems that Maintain Problem Behaviors</td>
</tr>
<tr>
<td>2.5</td>
<td>Overview of the Functional Behavior Process</td>
</tr>
<tr>
<td>2.6</td>
<td>Building a Support Plan: Components</td>
</tr>
<tr>
<td>2.7</td>
<td>A Model of Teacher Change</td>
</tr>
<tr>
<td>3.1</td>
<td>Embedded Case Study Design</td>
</tr>
</tbody>
</table>
## LIST OF APPENDIXES

<table>
<thead>
<tr>
<th>APPENDIX</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Teacher Demographic Checklist</td>
<td>282</td>
</tr>
<tr>
<td>B</td>
<td>Functional Assessment Interview Form</td>
<td>283</td>
</tr>
<tr>
<td>C</td>
<td>Learning Environment Assessment</td>
<td>287</td>
</tr>
<tr>
<td></td>
<td>(Revised) Early Childhood Settings</td>
<td>287</td>
</tr>
<tr>
<td>D</td>
<td>Motivation Assessment Scale</td>
<td>289</td>
</tr>
<tr>
<td>E</td>
<td>Preschool and Kindergarten Behavior Scales</td>
<td>293</td>
</tr>
<tr>
<td>F</td>
<td>Behavior Support Plan (BSP)</td>
<td>297</td>
</tr>
<tr>
<td></td>
<td>Acceptability Rating Form</td>
<td>297</td>
</tr>
<tr>
<td>G</td>
<td>Behavior Strategy Rating Scale</td>
<td>298</td>
</tr>
<tr>
<td>H</td>
<td>Professional Development Rating Scale</td>
<td>299</td>
</tr>
</tbody>
</table>
CHAPTER ONE

What happens during the first months and years of life matters a lot, not because this period of development provides an indelible blueprint for adult well-being, but because it sets either a sturdy or fragile stage for what follows (Shonkoff & Phillips, 2000, p. 5).

An increasing number of children attending early childhood settings present persistent problem behaviors that significantly interfere with learning and may indicate increased risk for later development of emotional behavioral disorders and long-term serious adjustment difficulties in school and the community (Campbell & Ewing, 1990; Campbell, 1995; Kaiser, Cai, Hancock, & Foster, 2002; Shonkoff & Phillips, 2000; National Institute of Mental Health, 2000; U.S. Department of Health and Human Services, 1999; Webster-Stratton & Hammond, 1998). School-age and early childhood teachers have reported feeling inadequately prepared to handle behavioral issues in the classroom and have reported more stress in the workplace related to meeting students’ special needs including behavioral needs (Carpenter & Nangle, 2002; Cheney & Barringer, 1995; Joseph, Strain, & Skinner, 2003, as cited by Joseph & Strain, 2004; Taylor, Smiley, & Ramasamy, 2001; Winton, McCollum, & Catlett, 2008).

Although there are well documented research-based interventions that have been shown to effectively reduce challenging behaviors, as described in individual studies (Carr & Durand, 1985; Newcomer & Lewis, 2004) and in the positive behavioral support summary literature (Bambara & Kern, 2005; Carr et al., 2002), teachers reportedly find these interventions difficult to carry out (Hester et al., 2004; Scott et al., 2005). Several factors may be helpful in supporting teachers to use evidence-based strategies in order to better address the behavioral and social emotional needs of their students, including general administrative supports (Strain & Joseph, 2004), recognition of the importance of
individual teacher qualities (Brownell, Adams, Sindelar, Waldron, & Vanhover, 2006; Rimm-Kaufman et al., 2002), the degree to which interventions are considered relevant within family and classroom contexts (Bambara & Kern, 2005; Stormont, Lewis, & Smith, 2005; Turnbull, Turnbull, & Wilcox, 2002), and the presence of on-going individualized teacher support through coaching and mentoring (Howes, James, & Ritchie, 2003; Showers, Joyce, & Bennett, 1987).

In a 2002 review of The Report of the Surgeon General’s Conference on Children’s Mental Health, the National Child Care Information and Technical Assistance Center (NCCIC) noted that “the report points to the increasing number of children in early childhood program settings, describing this as an opportunity and an obligation for early identification and well-informed interventions to address children's mental health needs” (NCCIC, 2002, ¶ 1). In other words, because young children spend so much of their time in child care settings, early childhood teachers can play an important role in “buffering” some of the factors that impact social emotional development and readiness to learn (Webster-Stratton, 1999, p. xiii). It is therefore crucial for teachers to receive the training and support they need in order to effectively work with those children whose behavior interferes with learning and indicates greater risk for later problems.

Behavior Problems in Young Children

A majority of preschool-age children in the United States now spend at least part of their day in care outside the home, beginning at a very early age. Sixty-five percent of three year olds and 79% of four year olds received nonparental care on a regular basis, at least one day per week in 2001. Child care for more than four million preschoolers was provided in child care centers, with 43% of three year olds and 65% of four year olds attending group care facilities (National Center for Education Statistics, 2005). Included
in these numbers are children who demonstrate behavior problems, including antisocial and aggressive behaviors. Indeed, novice early childhood teachers have reported classroom management as their greatest challenge (National Association for the Education of Young Children [NAEYC], 2001), and expulsion rates for preschoolers, most often attributed to behavioral concerns, exceeds school-age rates (Gilliam, 2005).

Prevalence and Trajectory

Reported prevalence rates for conduct and behavior problems for children in the general population vary from 3-6% (Institute of Medicine, 1990), with indications that rates are increasing (U.S. Department of Health and Human Services, 1999). Research has also indicated that rates are higher for children of low income families (Qi & Kaiser, 2003b, Webster-Stratton & Hammond, 1998). Webster-Stratton and Hammond’s 1998 study of children enrolled in Head Start, the federally funded preschool program designed to serve children and families from low income communities, indicated that teachers reported 15-20% of children fell in the clinical range for conduct problems and that independent observers noted even higher levels of 30%. Other prevalence studies have reported 10-15% of preschool children (regardless of income) exhibit moderate to severe antisocial behavior (Campbell, 1995; Kupersmidt, Bryant, & Willoughby, 2000; Lavigne et al., 1996).

Short term, the presence of behavior problems can interfere with a child’s ability to participate in learning and to develop healthy relationships (Campbell, 1995; Lavigne et al., 1998; Webster-Stratton, 1998; Webster-Stratton, 1999). Long term, problem behaviors may be early indicators of emotional, behavioral, and mental health disorders (Kendziora, 2004; Lavigne et al., 1998; McDonnell & Glod, 2003) and may be associated with later difficulties with peers and school (Dodge et al., 2003; Fischer, Rolf, Hasazi, &
Cummings, 1984; Kazdin, 1985). Researchers have also reported that children with early conduct disorders are more likely to experience later negative outcomes in terms of school failure, substance abuse, and juvenile delinquency (Campbell & Ewing, 1990; Egeland, Kalkoske, Gottesman, & Erikson, 1990; Kazdin, 1985). For example, Jimerson, Egeland, Sroufe and Carlson (2000) reported that the presence of early problem behaviors was a significant predictor whether or not young adults completed high school, noting that “the process of dropping out begins prior to the child entering school” (p. 542).

The presence of early problem behaviors is of special concern for children of low income families. A review of 30 studies examining the prevalence of behavior problems in preschool children for this group by Qi and Kaiser (2003b) indicated rates to be up to five times higher when compared to the general preschool population. In an often cited study conducted by Webster-Stratton and Hammond (1998), a sample of four-year-olds attending 64 Head Start classrooms had significantly more instances of aggressive and disruptive behavior and deficits in social skills both at school and at home when compared to the general population. Parents reported levels of oppositional and aggressive behavior at home in the clinically significant range for 23-33% of children. Teachers reported similar behaviors for 15-20% of the children in their classrooms, and independent classroom observers noted challenging behaviors for 30% of children. These authors concluded that “a pressing need for prevention efforts with preschool children whose poverty status places them at increased risk for behavior problems is indicated” (p. 199).

In addition, children with heightened levels of challenging behavior may also have significant deficits in the emerging social skills that might assist them in meeting the
requirements of the typical preschool environment, including the ability to listen, to share, to wait, and to handle strong emotions (Greenspan & Weider, 2006; Strain & Joseph, 2004; Webster-Stratton & Hammond, 1998). When children engage in problem behavior such as aggression, withdrawal, and covert antisocial behavior, they are more likely to experience peer rejection and negative teacher ratings (Wood, Cowan, & Baker, 2002). The prosocial skills that make up social competence in preschoolers are considered an important foundation for later school success (Hemmeter, Ostrosky, & Fox, 2006; Shonkoff & Phillips, 2000).

Definitions for Challenging Behavior and Social Competence

While closely related, challenging behavior and social competence are not simply opposite ends of a continuum of which children may possess more or less of a single variable. Children who are socially competent sometimes demonstrate significant challenging behavior; children with significant deficits in social skills do not necessarily exhibit behavior problems (Webster-Stratton & Hammond, 1998), though some studies have shown that it is more typical for children with challenging behaviors to also have social and language skills deficits (Kaiser, Hancock, Cai, Foster & Hester, 2000; Love & Thompson, 1988; Qi & Kaiser, 2003a, as cited in Qi & Kaiser, 2003b; Webster-Stratton & Hammond, 1998). Assessment instruments designed to measure young children’s performance in the social emotional domain typically treat challenging behavior and social competence as two distinct constructs; for example, the Preschool and Kindergarten Behavior Scales – 2 (Merrell, 2002) and the Social Skills Rating System (Gresham & Elliott, 2008), have subscales that look separately at social skills and problem behaviors.
Challenging Behavior

What is meant by “challenging behavior”? Teachers and families often refer to a class of children’s behavior that is described variously as problem behavior (Gresham & Elliott, 1990; Lucyshyn, Dunlap & Albin, 2002; Merrill, 2002), antisocial behavior (Kazdin, 1985), misbehavior (Webster-Stratton, 1999), hard-to-manage behavior (Campbell & Ewing, 1990), and behaviors that impede learning (Individuals with Disabilities Education Act [IDEA], 1997, 2004). More recently the early childhood literature has referred to this set of behaviors as challenging behavior (Technical Assistance Center on Social Emotional Intervention for Young Children; Center on the Social Emotional Foundations for Early Learning [CSEFEL], 2006; Fox, Dunlap, Hemmster, Joseph, & Strain, 2003). While the definition of what kinds of behaviors are problematic are related to context, developmental age, and cultural and familial expectations (Harry & Klinger, 2006; Kalyanpur & Harry, 1999; Chen, Downing, & Peckham-Hardin, 2002), according to the Center on the Social Emotional Foundations for Early Learning (CSEFEL), a national research consortium located at Vanderbilt University, the term “challenging behavior” is generally understood to include:

any repeated patterns of behavior that interfere with learning or positive interactions with others, and which are not responsive to developmentally appropriate guidance, including prolonged tantrums, physical and verbal aggression, disruptive vocal and physical behavior property destruction, self-injury, noncompliance, and withdrawal. (CSEFEL Training Module 3a, ¶ 4)

Some oppositional and disruptive behavior is to be expected in any preschool classroom where young children are just learning to self-regulate and adjust to social norms for cooperating with others and waiting to have their needs met (Brazelton &
Greenspan, 2000; Greenspan & Weider, 2006; Kendziora, 2004). Viewed through the developmental framework, these behaviors tend to diminish as children learn communication and social skills that are more effective (Bambara & Kern, 2005). It is when maladaptive behaviors persistently and significantly interfere with learning and positive relationships with adults and peers, and when support strategies that take into account a child’s developmental level, family/cultural style, and unique strengths, needs, and interests are not effective in remediating behavior, that the term “challenging behavior” is applied. Behaviors frequently mentioned by teachers are aggressive behaviors that endanger others, such as hitting and pushing (Carpenter & Nangle, 2002), and behaviors that are considered unsafe for the child; for example, one Head Start preschool teacher reported concerns about children in her classroom “jumping off tables and walking across window sills” (Gleason, 2007, p. 9).

**Social Competence**

Social competence refers to the prosocial characteristics that support healthy relationships and social emotional development. According to the Center on the Social Emotional Foundation for Early Learning, social competence in young children includes “a sense of confidence and competence, [the] ability to develop good relationships…[the] ability to persist at tasks, [the] ability to follow directions, [the] ability to identify, understand and communicate own feelings/emotions, [the] ability to constructively manage strong emotions, [and the] development of empathy” (CSEFEL, 2006, Training Module 2, ¶ 6).

Early childhood teachers have long considered social competence to be an important set of skills. For example, the federal preschool program Head Start includes social competence as an essential goal linked to school readiness and defines social
competence as “the qualities and abilities children need to succeed in an academic environment” (Schrag, Styfco, & Zigler, 2004, p. 23). Social competence has also been described as closely tied to school readiness by the National Association for the Education of Young Children (NAEYC, 1995) and the Child Mental Health Foundations and Agencies Network (Peth-Pierce, 2000; U.S. Department of Health and Human Services, 1999). This connection between social skills and learning has been succinctly stated by Schrag, Styfco and Zigler, who have noted that “for a preschooler, being socially competent is synonymous with being ready to start school” (2004, p. 23).

**Risk Factors**

Behavioral problems and deficits in prosocial skills in young children are thought to be associated with a complex set of risk factors that include child characteristics, family characteristics, and other environmental factors, including the stressors associated with poverty (Hester et al., 2004; Shonkoff & Phillips, 2000). Some of these factors are more readily amenable to intervention than others. For example, environmental factors such as classroom quality (Pianta et al., 2005; Peisner-Feinberg et al., 2001) and the use of classroom preventive measures (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003) are thought to be within the scope of school-wide efforts to promote social competence and prevent problem behaviors (Office of Special Education Programs [OSEP]). Other factors, considered child and family factors, fall outside the typical purview of schools and are more complex and less accessible as targets for amelioration. When these factors are addressed, they typically require schools to partner with health and human service agencies to provide more “seamless” services using wraparound and systems of care models (Eber & Keenan, 2004, p. 503).
Child and Family Characteristics as Risk Factors

Child characteristics that may influence behavior and social competence include temperament (Harden et al., 2000); individual differences in development, including language delays (Hester & Kaiser, 1998; Love & Thompson, 1988; Qi and Kaiser, 2004) and cognitive delays (Christle, Nelson, & Jolivette, 2002; Nelson, Leone, & Rutherford, 2004); and gender differences, with some studies indicating that boys are more likely than girls to engage in aggressive behavior (Crick & Zahn-Waxler, 2003; Hay, Angold, Pawlby, Harold, & Sharp, 2003; Kazdin, 1985; Kendziora, 2004). Family factors include the presence of maternal depression, household stress, and a harsh parenting style (Campbell & Ewing, 1990; Egeland, Kalsoke, Gottesman & Erikson 1990; Nix et al., 1990; Webster-Stratton & Hammond, 1998).

Poverty as a Set of Environmental Risk Factors

Poverty, considered a highly significant risk factor for the development of challenging behaviors and related difficulties at home, at school, and in the community, is not a single entity directly associated with problem behaviors in young children but is considered a construct in which environmental risk factors associated with poverty are nested. Identified risk factors associated with poverty include stress in the home, harsh discipline, parental mental health issues, and limited exposure to books and print (Adams, 1988, Christle, Nelson & Jolivette, 2002; Nelson, Leone, & Rutherford, 2004). As noted in an influential national report on early childhood development, From Neurons to Neighborhoods, family resources play an important role in children’s health, parental psychological well-being and parenting styles, and safe neighborhoods. Shonkoff and Phillips (2000) summarized the research this way: “the persistent economic hardship that affects so many children is likely to be highly detrimental, especially during the earliest
years of life” (p. 295).

Head Start – Ameliorating the Risk Factors Associated with Poverty

When discussing poverty as a contributing factor to children’s development it is important to mention the federal government’s large-scale 40-year attempt to ameliorate the impact of poverty on young children known as Head Start. Beginning in the 1965 as a social policy response to disparities in education and social opportunities associated with poverty, Head Start provides early childhood classes for three and four year olds with a broad goal in mind - to ameliorate the risk factors associated with poverty by providing children with school readiness skills – including supporting young children’s social emotional development (Greenberg, 2004; Schrag, Styfco, & Zigler, 2004; Sigel, 2004). As a far-reaching federally funded program with more than 40 years of history, Head Start has served almost 25 million children (National Head Start Association), including more than 900,000 children in 49,000 classrooms throughout the United States in 2005 (Head Start Bureau, 2005). Head Start programs are funded through the U.S. Department of Health and Human Services and administered by local not-for-profit agencies. While the efficacy of Head Start has been debated since its earliest days (Bowman, 2004; Sigel, 2004; Woodhead, 2004), its efforts at early identification of children who may be at-risk for learning and behavioral deficits due to factors associated with poverty, and its emphasis on preacademic skills and social emotional competence, have been systematic and far reaching (Keenan & Wakschlag, 2000; Ramey, Ramey, & Lanzi, 2004; Qi & Kaiser, 2003b). There is general agreement in the early childhood community that early identification of children with risk factors, as well as those children with documented needs, is important (Kendziora, 2004; Shonkoff & Phillips, 2000).
Early Identification

Early identification and early intervention encompass efforts to locate and address the needs of young children who are at risk for later learning and social emotional issues and those who are already identified with disabilities. These efforts, which include screening, assessment, and programming, are well supported by research (Kendziora, 2004; Shonkoff & Philips, 2000). For young children who are at risk for developing emotional and behavioral disorders early identification efforts are crucial, given that higher levels of challenging behavior and impaired social competence make a profound difference, not only in terms of quality of experiences and relationships during the preschool years, but in a child’s potential trajectory throughout the school years and into adulthood. Problems behaviors in early childhood such as tantrums and noncompliance have often been thought of as developmentally expected, and to an extent this is accurate (Greenspan & Weider, 2006; Kendziora, 2004). However, despite assurances from pediatricians and other professionals that young children will “outgrow” these behaviors, not all of them do (Kendziora, 2004, p. 327). Researchers and educators view the preschool years as a time period when prevention and intervention supports can make a positive difference in children’s ability to self-regulate, cooperate, and participate in learning (Center on the Social Emotional Foundation of Early Learning [CSEFEL]; Kendziora, 2004; National Association for the Education of Young Children [NAEYC], 1995; National Institute of Mental Health, 2002).

Early Identification and Screening

Preventive procedures to address the early indicators of challenging behaviors include improved early screening and intervention supports (Walker et al., 1996; Feil, Walker, Severson, & Ball, 2000); however, the effectiveness these measures is impacted
by several factors, including the use of diagnostic definitions that are not well suited to describing young children (Conroy, Hendrickson, & Hester, 2004; McDonnell & Glod, 2003; ), discomfort with assessment and identification of emotional behavior disorders for preschoolers (Hester et al., 2004; Knitzer, 2004; Yoshikawa & Knitzer, 1997), and limitations in assessment procedures that examine social emotional development in young children (Hester et al., 2004; Kaiser, Cai, Hancock, & Forster, 2002) In her review of mental health services for children in Head Start, Jane Knitzer reported that efforts at prevention and identification are often limited to infrequent classroom observations by a mental health specialist that include minimal feedback to teachers, and suggested that a “new level of mental health staffing and overall leadership from program directors and management teams” is needed in order to better assist young children with mental health needs and their families (Knitzer, 2004, p. 187).

*Early Identification and Children with Special Needs*

Some children who are behaviorally challenging to teachers are children who have already been identified with special needs through an early intervention evaluation process. In 1997, federal legislation extended the principle of free appropriate public education for all children (FAPE) to also require that a student’s educational program take place in the *Least Restrictive Environment* (LRE), that is, with typical peers to the maximum extent possible while still meeting a student’s educational needs (Individuals with Disabilities Act [IDEA], 1997). For some young children with disabilities, including those with behavioral needs, this has meant remaining in typical early childhood settings and receiving services as part of their preschool day. During the 2004-2005 Head Start program year 12.5% of enrolled children were children with disabilities (Head Start Bureau, 2005). While this represents a large number of children, it is likely an under-
representation of children with behavioral and social emotional problems, as it is more
typical for children to receive services for related needs, such as speech delays, while
behavioral needs are under-identified and under-addressed (Conroy, Hendrickson, &

Other young children who present with challenging behaviors at an early age may
not be identified with special needs as preschoolers, but will be found to have social-
emotional, language and/or learning needs later in their school careers (Forness et al.,
2000; Hester et al., 2003). While these children may be equally challenging to teachers,
families, and peers, they may not be evaluated; when evaluated they may not be found
eligible; or when eligible, it may be difficult to provide support services (Conroy,
Hendrickson, & Hester, 2004). Nonetheless, it falls to early childhood teachers to manage
difficult behaviors of both identified and non-identified children. In her review of early
intervention for emotional behavior disorders, Kendziora (2004) noted the importance of
early intervention and reported that “seriously disruptive behavior is common enough to
present challenges in every preschool or kindergarten classroom (p. 330).

Intervention

When considering emotional and behavioral disorders in young children, the lines
between prevention, early identification, and intervention can be “blurry” (Kendziora,
2004; p. 329). According to Kendziora, this is because the prevention model currently
favored in the field of education is based on the wide-spread application of intervention
procedures.

Researchers and schools have promoted the use of a three-tier approach that
encompasses three levels: 1) universal prevention measures designed to address the
behavior of all students and to offer training to all staff; 2) social skills enhancement for
students who may be at risk for developing challenging behaviors that interfere with learning; and 3) individualized supports for those children who do not respond at the first two levels (Kendziora, 2004; Colvin, Kame’enui, & Sugai, 1993). This mingling of prevention and intervention measures reflects the paradoxical nature of behavior, namely, “the best time to intervene on problem behavior is when behavior is not occurring” (Carr, et al., 2002, p. 9). In addition, identification procedures that might distinguish between typically developing young children who present with troubling behavior and those children for whom such behavior is an early risk indicator of later emotional behavioral disorder are still not well-established (Knitzer, 2004; U.S. Department of Health and Human Services, 1999). Therefore, choosing which children to provide supports for is an inexact process. As a reflection of the integrated nature of prevention and intervention efforts, early childhood researchers and practitioners have joined the broader education community in fostering the idea of system-wide efforts that address social competence for all children, as well as individualized targeted support for children who exhibit more problematic behavior (Center on the Social Emotional Foundations of Early Learning [CSEFEL]; Hemmeter & Fox, 2008; Technical Assistance Center on Social Emotional Intervention for Young Children [TACSEI]).

In particular, two prevention/intervention strategies have been of special interest: positive behavioral supports (PBS) and a related assessment approach known as functional behavior assessment (FBA). Positive behavioral supports refers to both a school-wide three-tier model and an individualized intervention model that support social competence and address challenging behavior through prevention and teaching. Functional behavior assessment is an integral part of the positive behavioral support process and provides a framework for gathering information in order to better understand
the factors that underlie challenging behavior (Center on the Social Emotional Foundations of Early Learning [CSEFEL]; Crone & Horner, 2003; Sugai, Lewis-Palmer, & Hagan-Burke, 2000). Both PBS and FBA are currently used in the schools, having originally developed through the applied behavior analysis research as a methodology designed to understand and address behavioral needs in individuals with moderate to severe low-incidence disabilities including autism and mental retardation in clinical settings (Crone & Horner, 2001; Fox & Gable, 2004).

**Positive Behavior Support**

Positive behavioral support (PBS) is an approach to behavior management that “uses educational methods to expand an individual’s behavior repertoire and systems change methods to redesign an individual’s living environment” (Carr et al., 2002, p. 4). PBS has been described in the literature at both the individual and school-wide levels as an assessment-based, problem solving, collaborative process that can result in positive behavior change (Bambara & Kern, 2005; Lucyshyn, Horner, Dunlop, Albin, & Ben, 2005). PBS is based on research with individuals using applied behavior analysis, the inclusion movement, and person-first values (Carr et al., 2002) and is specified as a preferred intervention approach in federal special education legislation when behavior impedes learning (Individuals with Disabilities Education Act [IDEA], 1997, 2004).

**The Individual and PBS**

PBS techniques were originally designed for the individual such that, by definition, PBS was a description of the particular: a particular behavior, a particular child, and a particular environment. Assessment and planning to support behavior change is based on the individual and his or her circumstances (Lucyshyn, Dunlap, Albin, & Ben, 2002). PBS procedures include identifying a team of stakeholders (family, teachers,
social worker); assessment of the behaviors of concern using functional behavior assessment; and designing a four-part behavior intervention plan that includes 1) an analysis of the environment in terms of prevention; 2) explicitly teaching prosocial behaviors that compete with and can take the place of inappropriate behavior; 3) responding to challenging behaviors when they do occur in ways that serve to reduce those behaviors and increase more appropriate replacement behaviors; and 4) monitoring the behavior support plan for effectiveness (Crone & Horner, 2003). When well done, PBS is respectful of the individual and family, sensitive to context, comprehensive in approach, and effective in supporting desirable behavior while reducing the triggers and reinforcers that engender problem behaviors (Lucyshyn et al., 2002).

School-Wide PBS: A Three-Tier Model

Applying the PBS model at a school-wide level has been supported through technical assistance offered by the US Department of Education’s Office of Special Education Programs (Technical Assistance Center on Positive Behavioral Interventions and Supports) and research efforts summarized by Sugai & Horner (2007). According to the Technical Assistance Center, schools in more than 30 states are currently implementing school-wide PBS. As a systems-change approach, PBS at the school level emphasizes prevention through altering the environment, actively teaching prosocial skills, and targeting individuals who need more individualized support. School-wide positive behavioral support is a three-tiered Response to Intervention model that is based on universal measures and a continuum of evidence-based interventions (Sugai, 2008).

At the first level, school and classroom-wide prevention supports are available for all students. At the second level, those students who are deemed at-risk for behavior problems based on assessment and available data receive extra support using small group
instruction and multiple opportunities to practice prosocial skills. At the third level, those students who display oppositional, aggressive and other forms of challenging behavior receive individualized support that includes functional behavior assessment in the context of the environment, modification of the environment to prevent challenging behavior, teaching new skills, and responding in ways that foster new behaviors and weaken maladaptive behavior patterns (Horner, Sugai, Todd, & Lewis-Palmer, 2005).

According to the Technical Assistance Center Positive Behavioral Supports and Intervention, PBS consists of “school-wide systems of support that include proactive strategies for defining, teaching, and supporting appropriate student behaviors to create positive school environments” (US Dept of Education, Office of Special Education Programs [OSEP], School-Wide PBS, ¶ 1) (See Figure 1.1). In contrast to more traditional approaches to school discipline which focused on punishing individual instances of misbehavior, PBS is based on research and experience in the field that have shown prevention and positive supports to be more effective in long-term reduction of challenging behavior (Bambara & Kern, 2005; Crone & Horner, 2003). As pointed out by Gable et al. (2003), schools have traditionally made a distinction between the child who struggles academically and the child who has behavioral challenges; while the former has more often been met with concern, assessment and remediation, the latter has frequently been met with disdain, rejection, and negative consequences (Bambara & Kern, 2005; Scott et al., 2005). This latter approach has been based on the short term goal of reducing the target behavior through punitive measures, such as reduction of a preferred activity (free time) or application of an aversive activity (detention, time out). For those children with recurring behaviors, “this often results in a steady diet of constant punishment” (Bambara and Kern, 2005, p.13) that is ineffective both in reducing maladaptive behavior
Figure 1.1. School Wide Positive Behavior Support (PBS)


and in increasing more appropriate behavior.

Stemming from theory and research using applied behavior analysis, the positive behavioral support approach is based on a theoretical framework that suggests that, like all behavior, problem behavior is learned and is influenced by environmental factors that can be systematically altered (Bambara & Kern, 2005). Importantly, this systematic applied behavior analysis approach has provided the technology, as well as the rationale for changing behavior, through practical guidance and specific strategies used to assess behavior and the environment, to develop interventions, and to continually monitor behavior change and the development of strategies (Carr et al., 2002). It is this practical application that has made applied behavior analysis a workable system that could be
adopted by schools as positive behavior support. This approach has gained ground for several reasons: a growing body of supporting research evidence, legislative mandate at the federal and state level, and the increasing availability of practical PBS strategies to the general education community (Crone & Horner, 2003).

Evidence-Base for PBS

A research summary describing the current evidence for positive behavioral supports compiled by Horner and Sugai (2007) indicated that, as a relatively new approach, the evidence-base demonstrating effectiveness of PBS is still forming. Historically, much of the research on functional behavior assessment and positive behavior support for individuals has been single-case design studies; as a body of research, these single-case studies have been described as “rigorous, generalizable, and strong in social validity” (Kutash, Duchnowski, & Lynn, 2006, p. 33, as cited by Horner & Sugai, 2007). More recently, investigators have been looking at school-wide system support. In their “School-Based Mental Health: An Empirical Guide for Decision-Makers” (2006) completed for the Florida Mental Health Institute, Kutash, Duchnowski and Lynn concluded that “early results of PBS interventions implemented at the indicated level, and the growing body of support for implementation at the universal and selective levels for children who have emotional/behavioral problem is very promising” (p. 32, as cited in Horner & Sugai, 2007). Researchers have reported both short term (Horner, Sugai, Todd, & Lewis-Palmer, 2005; Lewis, Sugai & Colvin, 1998; Luiselli, Putnam, Handler & Feinberg, 2005) and long term improvements (Luiselli, Putnam & Sunderland, 2002) in school climate and a decrease in behavior incidents in schools using PBS.
Functional Behavior Assessment

Functional behavior assessment (FBA) describes a research-based assessment protocol that is part of the PBS approach. Originally described as a methodology designed to understand and address behavioral needs in individuals with moderate to severe low-incidence disabilities including autism and mental retardation in clinical settings, functional behavior assessment has been found to be effective in 1) analyzing challenging behavior in terms of environmental factors and communicative intent, and 2) identifying new behaviors that can replace challenging behavior (Carr & Durand, 1985; Crone & Horner, 2001; Fox & Gable, 2004; O’Neill et al., 1997). FBA has more recently been implemented in school settings in response to the growing interest in research-based interventions and federal legislation (Fox & Gable, 2004; Sugai, Lewis-Palmer, & Hagan-Burke, 2000).

Functional behavior assessment is both an integral part of the three-tier positive behavior support school-wide model and a required procedure for individual students under the Individuals with Disabilities Education Act whenever behaviors that interfere with learning may be associated with a child’s special needs (IDEA, 1997, 2004). While the methodology and definition of functional behavior assessment are still evolving (Dunlap & Kincaid, 2001), there is general agreement that an FBA includes the following: 1) accurately describing the behaviors of concern; 2) identifying the antecedents that may serve as triggers for the behaviors; 3) identifying the responses from the environment that may maintain the behavior; 4) generating a hypothesis about the behavior in terms of the environment in which it occurs; and 5) collecting data to support hypothesis statements (Fox & Gable, 2004).
The FBA process takes a person-first approach, looking at the unique characteristics of the individual and the environment in order to support behavior change in ways that fit the individual and the context, whether school, home or community (Lucyshyn, Dunlap, Albin, & Ben, 2002). It uses team-based planning, and includes direct assessment in the form of observation and indirect data collection methods such as interview and records review in order to gain a picture of the individual and the environmental factors that trigger and maintain behavior (Fox & Gable, 2004).

FBA and Behavior Support Planning

Considered a process rather than a stand-alone procedure, the FBA serves as a necessary basis for effective behavior support planning (Dunlap & Kincaid, 2001) and results in a behavior support plan based changes in the environment and purposeful teaching of new behaviors. As such, the FBA process has also been shaped by the concept of “functionally equivalent response alternatives” (Dunlap & Kincaid, 2001, p. 366), described so notably by Carr & Durand (1985) in their study of children with developmental disabilities. In the study, when subjects were taught to use alternate means of communication to gain adult attention during difficult tasks (in effect, more appropriate functional equivalents to replace the use of problem behaviors), occurrences of problem behaviors decreased. Sometimes referred to as “replacement” behavior or “competing” behavior, these equivalent behaviors are explicitly taught to replace the maladaptive behavior (Center on the Social Emotional Foundations of Early Learning [CSEFEL]; O’Neill, Horner, Albin, Sprague, Storey, & Newton, 1997). This teaching element is an important link between functional behavior assessment and effective behavior planning (CSEFEL; O’Neill et al., 1997). Both functional behavior assessment and behavior planning are integral parts of the PBS approach.
Evidence-Base for FBA

Functional behavior assessment is based on research findings from applied behavior analysis indicating that functional analysis of environmental variables can contribute to well-designed behavioral interventions (Lewis et al., 2004). Initially, FBA research examined the function of behavior and its relationship to the environment for individuals with developmental disabilities (Carr, 1977; Carr & Durand, 1985; Iwata et al., 1994). The goal was to better understand how environmental variables might be manipulated to improve behavior. Following those earlier studies, researchers went on to examine the use of functional behavior assessment for children with emotional and behavioral disorders; findings indicated that FBA did contribute to more effective behavior planning (Blair, Umbreit, & Bos, 1999; Lewis & Sugai, 1996; Umbreit, 1995). More recent research has continued to focus on individuals with behavioral needs, but with a growing emphasis on conducting assessments and implementing intervention programs in the schools (Boyajian, DePaul, Handler, Eckert, & McGoey, 2001; Wright-Gallo, Higbee, Reagon, & Davey, 2006; Lewis et al., 2004).

Functional behavior assessment, when used in controlled clinical settings and more naturalistic school settings, is designed to yield individualized and highly specified descriptions of behavior and associated environmental variables in order to plan for behavior change. While FBA is considered an important assessment tool and was described by Lewis et al. (2004) as “one of the most powerful tools ABA (applied behavioral analysis) has given to the field” (p. 534), FBA requires training, time, and careful observation and analysis. As a result, there are some concerns about fidelity related to assessment and intervention in school settings for both PBS and FBA (Gable et al., 2003; Scott et al., 2005; Scott, Anderson, & Spaulding, 2008).
In keeping with the recent emphasis on system-wide positive behavioral supports, the early childhood community has sought to address behavioral needs through systematic school-wide interventions (CSEFEL; Hemmeter & Fox, 2008; Technical Assistance Center on Social Emotional Intervention for Young Children). The Center on the Social Emotional Foundations of Early Learning (CSEFEL) has created a three-tier model for preschool PBS (Figure 1.2). Also known as the “teaching pyramid” (Fox, Dunlop, Hemmeter, Joseph, & Strain, 2003; Hemmeter & Fox, 2008), this tiered approach contains three levels which, in keeping with the school-age PBS model, move from universal measures, to targeted at-risk measures, to high-risk supports. Level one is a universal level based on relationship building and preventive practices for all students; level two is based on explicitly teaching and reinforcing prosocial behaviors; level three is based on identifying those children at higher risk who require intensive individualized interventions, including functional behavior assessment and behavior support planning (Hemmeter & Fox, 2008). As with the school-age version, successfully implementing PBS at the preschool level depends on administrators and teachers demonstrating leadership, understanding behavior in terms of communication and new replacement behaviors, and having the time and skills to put the model into practice (CSEFEL, Technical Assistance Center Positive Behavioral Supports and Intervention).

Implementing PBS & FBA

When effectively carried out by trained staff, positive behavior supports, including functional behavior assessment, can provide teachers with useful and relevant information and can support children’s positive behaviors, thus helping them to be more available for learning (Bambara & Kern, 2005; Crone & Horner, 2003). Yet researchers
have found that the PBS approach can be difficult for school personnel to carry out, even in the presence of professional development, impetus from federal legislation, and given the education community’s interest in research-based assessment (Crone & Horner, 2003; Dunlap & Kincaid 2001; Gable et al., 2003; Scott et al., 2005).

*Figure 1.2. Preschool Positive Behavior Support (PBS) Model*

From Fox, Dunlap, Hemmeter, Joseph & Strain, 2003 – Revised CSEFEL, 2007
Barriers to Implementing Positive Behavioral Supports

Several factors may serve as barriers to effective implementation of PBS, including the complexity of behavior change, teacher attitudes and beliefs, and teacher preparation and professional development support. These challenges to implementation will be discussed in the sections which follow.

Complexity of Behavior Change

The task of addressing behavior is complex and requires individualized programming. As noted by Bambara (2005), PBS is not simply a set of prescriptive strategies; instead PBS “provides a philosophical and value-based approach for understanding reasons for problem behaviors and designing interventions…” (p. 21). The PBS literature makes it clear that PBS is not a “packaged curriculum”, but rather is an approach that defines core elements at several levels, using a variety of strategies (Sugai & Horner, 2007, ¶ 5). Implementing this kind of model requires a theoretically sound understanding of behavior, a developmental framework, knowledge of specific strategies, and knowledge of the unique strengths and needs of the child that may not be part of teachers’ repertoire. In addition, effective use of PBS, including planning for behavior change based on functional behavior assessment, requires an ecological understanding of the child in terms of family, school, and community contexts, each with diverse beliefs, values, and interaction patterns (Lucyshyn et al., 2002).

Teacher Attitudes

Research examining teachers’ attitudes and beliefs has described several factors that are thought to influence the quality of support teachers offer children with social emotional and behavioral needs. These are teachers’ attitudes towards working with children with special needs including social emotional and behavioral needs (Buell,
Hallam, Gamel-McCormick & Scheer, 1999; Snyder, 1999), teachers attitudes towards research-based interventions (Boardman, Arguelles, Vaughn, Hughes, & Klingner, 2005; Weikart, 2004), teachers sensitivity towards children and ability to form positive relationships (Pianta et al., 2005), and teachers’ receptivity to new teaching practices (Brownell et al., 2005). Findings have indicated that some teachers may be less likely to feel prepared to work with children with special needs including behavioral needs, may have less positive relationships with children, and may be less likely to accept and effectively implement new strategies.

These factors have an impact on attempts to implement positive behavior supports (PBS) in classrooms. For example, when teachers are asked to implement PBS, effective strategies may run counter to teachers’ experiences and preconceived ideas about challenging behavior (Scott et al., 2005) and may be considered less feasible than traditional methods (Stormont, Lewis & Smith, 2005). In cases in which it has been more typical for functional behavior assessment (FBA) and PBS to be carried out by expert consultants and university researchers, the likelihood that the strategies and skills demonstrated by professional behavior experts will be later replicated in classrooms by teachers is far from guaranteed (Fox & Gable, 2004). The level of fidelity with which an intervention is carried out depends, in some measure, on the intervention’s fit with teacher skills and beliefs, the ongoing demands made on teachers’ attention and time when preparing for and conducting a typical school session, and availability of feedback and support (Duda et al., 2004; Kalyanpur & Harry, 1999; Scott et al., 2005; Winton & McCollum, 2008).

The success of FBA and PBS procedures also depends, in part, on social validity, that is, the degree to which strategies are viewed as relevant and important by the
stakeholders – including the teachers who are asked to carry out a child’s behavior plan (Lucyshyn et al., 2002; Stormont et al., 2005). Lastly, successful use of procedures also depends on teachers’ abilities to adopt new practices. Some teachers at preschool and school-age are reported to be less likely to change current practices even with support; according to one research team, these “low adopters” were much less likely than their colleagues to incorporate new strategies into their teaching repertoires and were less flexible, less self-reflective, and had less of a commitment to adapting instruction to the needs of individual learners (Brownell et al., 2006).

*Teacher Preparation and Professional Development*

According to Guskey (2002), three goals of professional development for teachers are 1) change in teacher practice; 2) change in attitudes and beliefs; and 3) change in outcomes for students. While the education community’s understanding of what constitutes quality professional development is still under discussion (Guskey, 2003), research has indicated that, at the very least, several elements need to be in place for professional development to be successful. These include multiple opportunities to make connections between new ideas and current practice (Joyce, Showers, & Bennett, 1987), “social support” for teachers (Joyce et al., 1987, p. 86) including teacher to teacher communication (US Department of Education, 1999), coaching by both experts and peers (Boyle, Lamprianou, & Boyle, 2005; Clark & Stroud, 2002; Showers, Joyce, & Bennett, 1987; Showers & Joyce, 1996), and making connections between teacher behavior and student outcomes (Fishman, Marx, Best, & Tal, 2003; Guskey, 2002; Kennedy, 1999).

In addition to describing best practice in professional development, researchers have also noted several barriers to effective professional development for early childhood
teachers, including fragmented and inadequate preservice training, limited time to collaborate, inadequate ongoing supervision and support, and continued use of training models that do not engage teachers in reflecting on their own practice (Barnett, 2004; Strain & Joseph, 2004; Winton & McCollum, 2008). When examining the specific supports needed to help teachers respond competently to challenging behavior in their classrooms, it appears that preservice and inservice education for early childhood teachers has not been able to address teachers’ needs, as behavior intervention strategies typically have not been adequately taught in early childhood training programs or generally applied in classrooms (Hemmeter & Fox, 2008; Winton & McCollum, 2008; Webster-Stratton, 1999).

Although PBS is based on research evidence, historically Head Start and other early childhood programs have been known to be more belief-based than evidence-based when making programmatic and teaching decisions (Weikart, 2004). For example, Weikart cited the founding beliefs of the Head Start movement in the 1960’s, that attending to the social and physical needs of children would contribute to school readiness; at the time this was a belief that was not yet supported by research or evidence. Dependence on beliefs and more familiar teaching strategies rather than research may, in part, be related to early childhood teachers’ relatively limited training requirements when compared to school-age teachers. In many states the credentialing requirements for early childhood teachers are slim or nonexistent, and according to a study entitled “Losing Ground in Early Childhood Education” by Herzenberg, Price, and Bradley (2004), the percentage of U.S. center-based teachers and administrators with at least a four-year college has declined over the past 20 years, and currently stands at only 30%.

Pushing back against this trend, Head Start began requiring increased levels of
training for its teachers in the late 1990’s. Currently, Head Start reported that 38% of its
teachers have at least a four-year degree (National Head Start Association). While this is
progress, it falls well short of school-age teacher requirements. Dependence on belief
may also be more characteristic of teachers in general, who may spend less time reading
research and talking with colleagues about innovative programs, according to Guskey,
who found that research-evidence was not rated highly as a factor when evaluating the
merits of professional development programs (2003). Thus, teacher beliefs and training
are important in preparing teachers to effectively work with children with behavior
problems using evidence-based strategies such as PBS.

Summary of Barriers to Effective Implementation

As indicated in the research, asking teachers to systematically and effectively
implement evidence-based assessment techniques such as functional behavior assessment
and intervention strategies such as positive behavioral supports in the schools with
fidelity is problematic (Gable et al., 2003; Scott et al., 2005; Scott, Anderson, &
Spaulding, 2008). Three barriers to effective use of positive behavior support strategies in
the schools included complexity of behavior change, teacher attitudes and beliefs, and
limited training. Given that there are barriers to effective implementation and that there
are potentially serious negative outcomes for children whose behavioral needs are not
effectively addressed, an important area of research is how to better support teachers to
work with children with behavioral deficits.

Challenging Behavior and Effective PBS Implementation

Research and experiences in the field have demonstrated that young children who
present with challenging behaviors are more likely to be at risk for long term negative
outcomes, including emotional behavior disorder, school failure, and difficulties with
relationships and community life (Campbell & Ewing, 1990; Campbell, 1995; Kaiser, Cai, Hancock, & Foster, 2002; Shonkoff & Phillips, 2000; National Institute of Mental Health, 2000; U.S. Department of Health and Human Services, 1999; Webster-Stratton & Hammond, 1998). These are serious risks with consequences for the individual, the family, the community, and society as a whole. As such, efforts have been made to develop early identification and intervention procedures that can serve to address the needs of young children at risk for developing social emotional and behavioral disorders that may interfere with learning and school readiness (Kenzdiora, 2004; Shonkoff & Philips, 2000).

Recently much attention has been given to a set of evidence-based prevention and intervention strategies designed to address these needs. Known collectively as positive behavior support (PBS) these strategies are based on work in applied behavior analysis (Baer et al., 1968; Bambara, 2005; Lewis et al., 2004) and are considered effective in helping children to improve their behavior (Center on the Social Emotional Foundations of Early Learning [CSEFEL]; Hemmeter & Fox, 2008; Technical Assistance Center on Social Emotional Intervention for Young Children [TACSEI], 2008).

While the need is clear and effective strategies for promoting social competence and addressing challenging behavior have been described in the literature and are supported by federal recommendations and legislation (Huffman, Mehlinger, & Kerivan, 2001; Individuals with Disabilities Education Improvement Act of 2004; Technical Assistance Center on Positive Behavioral Supports and Intervention, 2008), carrying out those strategies poses challenges to early childhood programs. This is because implementing effective classroom-wide and individualized positive behavior support strategies is complex and time-consuming, requiring a level of expertise that is not
typically part of the background and training of classroom staff (Gable et al, 2003; Scott et al., 2005). Challenges include identified teacher deficits in the attitudes and skills necessary to work effectively with children with behavioral needs, the limited effectiveness of professional development efforts aimed at changing teacher attitudes and improving skills, and the complexity of effectively and fully implementing well-designed behavior support plans. Therefore, it is important to investigate teachers’ implementation of behavior support plan strategies and to examine the types of professional development support that contribute to teachers effectively implementing those plans with fidelity.
CHAPTER TWO: REVIEW OF THE LITERATURE

This chapter presents a review of the literature for each of the three strands that inform this study: 1) social competence and challenging behavior in young children; 2) effective research-based practices designed to address behavior that impedes learning, that is, positive behavioral support and functional behavior assessment; and 3) professional development for teachers working with children with challenging behavior. Each of the three strands is discussed separately in terms of theory, research findings, and current practice. Taken together, the strands are then discussed in terms of their relevance to this study’s exploration of teachers’ use of behavioral strategies in the early childhood classroom and supports for teachers.

Social Competence and Challenging Behavior

The well documented importance of young children’s social emotional development to learning and later adjustment to family, work, and community life has been a focus of interest in several ways. The research community has sought to examine factors that influence social emotional development, the characteristics and impact of early emotional behavior disorders, risk factors for young children with social behavioral needs, and relationships between social emotional development and learning (Brazelton & Greenspan, 2000; Campbell, 1985; Campbell & Ewing, 1989; Kazdin, 1985; Pianta et al., 2005; Shonkoff & Phillips, 2000; Webster-Stratton & Hammond, 1998). The education community has worked to make use of research findings in order to evaluate and improve the quality of early childhood settings including teacher, classroom, curriculum, and program characteristics, and to make recommendations about ‘best practice’ (Center for the Social Emotional Foundations of Early Learning [CSEFEL]; Clark & Stroud, 2003; Dunlap, et al., 2003; Powell, Dunlop, & Fox, 2006; Webster-Stratton, 1999; Zeitlin &
Williamson, 1994). In light of the fact that young children are spending increasing amounts of time in child care (National Center for Education Statistics, 2005), it is increasingly apparent that the quality of the early childhood environment can have an important impact on social development and learning (CSEFEL; National Institute of Mental Health, 2002; Peisner-Feinberg et al., 2001; Pianta et al., 2005; Shonkoff & Phillips, 2000). With this in mind, government agencies and social policy makers have acted to set the course in health, human services, and education affecting young children. These entities have sought to understand the role of social development in education and to shape events by funding research, offering research-based recommendations, measuring teacher and program effectiveness, and setting goals related to improving early childhood education and mental health (Administration for Children and Families; 2003; National Child Care Information and Technical Assistance Center, 2002; National Institute of Mental Health, 2002; Technical Assistance Center on Social Emotional Intervention for Young Children; U.S. Department of Health and Human Services; 1999).

The following sections describe in more detail the importance of healthy social emotional development. First, early development is described in terms of emerging social emotional capacities and typical development. Next, the components of social competence, including theory of mind, coping, and self-regulation, are presented. Finally, social emotional competence in the context of culture is briefly discussed, followed by a presentation of issues related to measurement.

Early Development and Social Emotional Capacities

One way to describe social emotional development for infants and very young children is in terms of capacities. According to Landy (2005) in her text on social emotional development in young children, during infancy, toddlerhood, and the preschool
early years, the young child develops six “capacities” that become foundations for healthy emotional development. These capacities are a sense of self, attachment to caregivers, pretend play, language and communication, self-esteem, and a growing ability to “internalize standards, limits, and rules” (p. xxi). These emerging social emotional capacities are the building blocks of adaptive behavior, coping, and self-regulation, allowing the young child to successively adapt to the demands of a widening environment. Greenspan also has described early emotional development in terms of capacities (Brazelton & Greenspan, 2000; Greenspan & Greenspan, 1985; Greenspan & Weider, 2006), and has suggested that healthy emotional development depends, in part, on the individual’s growing ability to reflect, to relate, and to cope with stress (Greenspan & Benderly, 1997).

**Capacities and Typical Development**

As noted by Greenspan (Brazelton & Greenspan, 2000) and others, healthy development depends on a young child’s growing capacity to relate, cope, and self-regulate. In early infancy, young children use relationships to map out and organize their sense of the social-cognitive world, including what to expect from others and what others may expect from them (Greenspan & Benderly, 1997). Recently, Greenspan and Weider (2006) have described these capacities as functional stages of emotional development that include the following: early shared attention and regulation (characteristic of infants 0-3 months); early social engagement and relating (2-7 months), two-way communication through intentional affective signaling (3-10 months); long chains of co-regulated emotional signaling and shared social problem solving (9-18 months); creating representational ideas that serve to organize the young child’s behavior towards the world (18-30 months); and logical thinking, that is, thinking that makes logical connections
between ideas, sets of ideas, and feelings (30-48 months).

For the typically developing preschooler, Greenspan’s model suggests that a four year old is developing the capacity to connect feeling states with events and to make finer distinctions between feelings. For example, in addition to feeling angry and labeling that feeling as “mad”, the four-year-old child can attribute that feeling to an event. To use Greenspan’s example, the two-year-old may simply feel angry, while the four-year-old might reason, “I’m mad because you hit me” (Greenspan & Weider, 2006, p. 32). The typically developing four-year-old also connects events across time, for example, “that girl let me play with doll yesterday, I bet she will tomorrow, too” (p. 32).

In addition to viewing early social emotional development in terms of stages, the literature also describes a young child’s emerging social skills in terms of social competence. Social competence as an overall construct will be described next, along with several key components: theory of mind and relatedness, and coping and self-regulation.

*Social Competence*

When early social emotional capacities develop over time through supportive relationships and experiences, young children gain the ability to share warm relationships, to empathize with others, and to cope with typical demands; they demonstrate social competence (National Institute of Mental Health, 2002). Often referred to in the literature and defined in several ways, the term social competence in preschoolers is commonly understood to mean those problem solving and social interaction skills that lead to successful relationships and effective behavior at home and school (Webster-Stratton, 1999). Landy (2006) presented a developmental model of social competence that emphasizes a growing set of prosocial skills, including the ability to follow rules, cooperate, problem solve, and get along with others, and a growing sense
of others, including social referencing (using others’ emotions to guide one’s own behavior), caring about social standards, establishing a theory of mind (understanding perspective-taking and knowing that one’s view may not be the only view), integrating emotions (understanding that one may have several emotions at the same time), and showing sympathy and empathy. (See Table 2.1)

In the National Institute of Mental Health (2002) publication, A good beginning: Sending America's children to school with the social and emotional competence they need to succeed, social and emotional competence is defined as the child’s ability to function successfully in the school setting in terms of getting along with peers and communicating with teachers. The monograph’s author, Ruth Peth-Pierce, noted that these abilities are “rooted in the relationships that infants and toddlers experience in the early years of their lives” (p. vii), as they develop secure attachments and pass through early developmental milestones leading to self-awareness, independence and self-control.

**Development of Theory of Mind and Relatedness**

As preschool-age children refine their understanding of their own emotions and the emotions of others, they are able to make finer distinctions using greater awareness of the context in which feelings have arisen. They also gain a better understanding of a wider range of behavioral responses from the child and caregivers. These developing capacities – the ability of young children to understand their own emotions and the ability to understand the emotions of others - serve as a basis for later high-level thinking and decision-making about social events and relationships. Essential to this process is the development of reflective thinking, the ability to examine one’s own feelings and behaviors, and relativistic thinking, the ability to understand and describe feelings in more subtle gradations (Greenspan & Weider, 2006, p. 339). For example, unlike the two-year-old who may feel simply, “I’m mad at you”, the older child may be able to reflect, “My feelings were hurt when you didn’t come”.
Table 2.1

Development of Social Competence, Empathy, and Caring Behavior

<table>
<thead>
<tr>
<th>Age</th>
<th>Social competence</th>
<th>Empathy and caring behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth–12 months</td>
<td>Reacts to the human face more than to objects; enjoys face-to-face interaction and social interchange with adults very early; shows fear of strangers and preference for familiar caregivers; attachment to primary caregivers established; engages in turn-taking with adults; some parallel play evident; may look towards peers and direct smiles and vocalization toward them</td>
<td>Sensitive to emotions and activities of others; responds differently to friendly and unfriendly faces; cries when other people (especially other babies) cry; offers objects and food to others</td>
</tr>
<tr>
<td>12–24 months</td>
<td>Enjoys parallel play but can cooperate for brief periods of time; imitates others; begins to play follow-the-leader games; still seeks out the secure base of the caregiver; interactions with peers often become struggles over possessions; still frequently engages in solitary play; 60%–80% of play is very object-centered</td>
<td>Increasingly uses social referencing or responding to and using emotions of another person to guide behavior; will try and comfort another person who is upset; increasingly shares things with others, helps others, “cares” for baby siblings</td>
</tr>
<tr>
<td>2–3 years</td>
<td>Friendships more stable; demonstrates cooperation with peers in problem-solving; imitates social interactions more; is able to resolve conflicts and work collaboratively toward a goal with friends and peers; consistently plays more cooperatively and interactively; shared themes in play are possible</td>
<td>Begins to be concerned about standards of social behavior (e.g., broken toys, missing buttons); tries various methods to comfort others; realizes others have inner states, thoughts, and perceptions</td>
</tr>
<tr>
<td>3–4 years</td>
<td>Cooperates with peers to achieve common goals; spends more time interacting with other children; acts out complementary roles in complex social pretend games; can maintain cooperative play for longer periods of times; is better able to work out conflicts</td>
<td>Sympathetic reactions to other children become common; increased ability to listen to others; theory of mind established and more able to understand others’ perspectives and feelings; shows increased ability to respond to the feelings of others by comforting; sometimes helping behavior drops off a little because teachers are seen as the ones to do the work</td>
</tr>
<tr>
<td>4–6 years</td>
<td>Enjoys interactive games with rules; identifies with people in and outside the family; plans games with other children, and can think before acting; can exhibit quite sophisticated problem-solving ability around social issues</td>
<td>Can integrate mixed emotions, so less likely to suddenly become extremely angry; is capable of concern for future welfare of others</td>
</tr>
</tbody>
</table>

*Note.* From Landy, 2002, p. 520
Both reflective thinking and relativistic thinking depend on the child’s cognitive
development, specifically the child’s growing understanding of perspective taking and
*theory of mind* – the understanding that the beliefs and feelings of others may be different
from one’s own (Austingon, Harris, & Olson, 1988; Astington & Jenkins, 1995; Dunn,
These foundation social emotional capacities and cognitive prerequisites are developed
through the child’s relationships with caregivers and serve as the basis for later success
with developing coping skills (Brazelton & Greenspan, 2000; Greenspan & Benderly,
1997; Landy, 2002), friendship skills (Dunn & Cutting, 1999) and overall healthy social
emotional development (Brazelton & Greenspan, 2000; Greenspan & Weider, 2006).

*Coping*

The ability to be successful in the context of developmentally appropriate
expectations is associated with coping and self-regulation. Coping in young children is
described as managing personal needs while responding to environmental demands (to
wait, to stop, to come, etc.) in ways that “maintain or enhance feelings of well-being”
(Zeitlin & Williamson, 1999, p. 12). Typically when reasonable demands are placed on
them, young children learn over time to use coping responses that are socially acceptable,
such as waiting, finding something else to do, or asking for help. Sometimes, children
may attempt to cope with a demand in ways that are developmentally unexpected and
socially maladaptive, for example, by hitting, biting, and tantrumming. Such
behavioral responses, which may be developmentally expected for a toddler, are generally
not expected for five-year-olds. When these behaviors occur as a pattern over time, are
not amenable to developmentally appropriate adult responses, and are of high frequency,
intensity and duration, they are considered challenging behaviors (Technical Assistance
Self Regulation

Related to coping, another construct that refers to the child’s capacity to adapt to environmental demands is self-regulation (Greenspan & Wieder, 2006; Kochanska, Coy, & Murray, 2001; Shonkoff & Phillips, 2000). Early self-regulatory tasks call on the infant to adapt patterns of biological functioning, such as sleeping and eating, to the family’s cultural practices, in accordance with the infant’s developmental capacity (Shonkoff & Phillips, 2000). Later, self-regulatory tasks call on the growing preschool child to regulate emotions, as well. As aptly noted by Shonkoff and Phillips (2000), “The task of emotional regulation is not simply a matter of learning to suppress emotions. It is more broadly one of deploying emotions effectively in relationships, while playing and learning, and in a wide range of settings” (p. 112). Children learn that strong emotions are normal and manageable, that adults are available to assist them in problem solving and meeting their needs, and that they can learn to manage their own emotions and behaviors independently as they get older (Center on the Social Emotional Foundations for Early, 2008; Shonkoff & Phillips, 2000). They also learn to internalize the external rules for social compliance (Gralinski & Kopp, 1993; Kochanska, Coy, & Murray, 2001).

Culture and Social Competence

It is important to note that social emotional development, including the growing capacities to relate, cope, and self-regulate, takes place in a cultural context. This can sometimes be a source of misunderstanding, especially when children move between cultural settings with varying expectations and practices. The short distance between school and home can be a great distance for a young child in terms of cultural
expectations. For example, what is expected at school in terms of activity level and responses to others, such as sitting still, making eye contact and answering questions, may be quite different from home (Harry & Klingner, 2006; Kalyanpur & Harry, 1999). Neal, McCray, Webb-Johnson, and Bridgest (2003) reported that teachers were sensitive to movement patterns and demeanor when judging unfamiliar students in terms of aggression and achievement, indicating that students could appear to be more aggressive and less competent simply by how they walked in the hallways. Greenspan and Weider (2006) have suggested that cultural differences in relating, thinking, and communicating have an impact on a child’s development of emotional capacities, and that infant and early childhood mental health is best understood in the context of the family’s culture.

Measuring Social Competence

It is clear from the discussion here that the construct known as social competence is complex and, understandably, may be difficult to measure. When attempting to measure the presence or lack of the social skills that are thought to comprise social competence in young children, psychologists and teachers rely on a variety of instruments that are designed as either full assessments or screening instruments. While not attempting to provide a comprehensive review of available instruments, it is important to summarize the range of skills and subtests that are a part of these measures, and to note that there is no common agreement as to which subsets are the most salient, and which items might be best included in each subset.

The range of social skills addressed is broad, from a single global measure described by the Developmental Assessment of Young Children: Social Emotional Subtest (DAYC), to assessment tools that delineate social development across several subscales. For example, the Social Emotional Early Childhood Scales is comprised of
three subscales: coping, play & leisure time, and relationships; the Battelle Developmental Inventory, Revised: Personal Social Domain is comprised of four subdomains: adult interaction, self-concept, peer interaction, and self-concept and social role. Another measure, the Social Skills Improvement System (Gresham & Elliot, 2008), divides social emotional development into seven subdomains including: communication, cooperation, assertion, responsibility, empathy, engagement, self-control; and also includes a set of subdomains for competing problem behaviors: externalizing, bullying, hyperactivity/inattention, internalizing, and autism spectrum.

In addition, early childhood programs and evaluators may select measures that focus on behavior and related adaptive skills in addition to social skills, such as the Behavior Assessment System for Children-2, (Reynolds & Kamphaus, 2008) which covers 16 subareas: activities of daily living, adaptability, aggression, anxiety, attention problems, atypicality, conduct problems, depression, functional communication, hyperactivity, leadership, learning problems, social skills, somatization, study skills, and withdrawal. Other instruments used at the preschool level divide behavior problems and prosocial skills development, such as the Preschool and Kindergarten Behavior Scales, Revised (Merrill, 2002).

Social Competence and Construct Validity

While there is no single agreed upon set of social skills and behaviors that are measured across instruments, in general the concept of social competence is considered to have adequate construct validity (Kavale, Mathur, & Mostert, 2004). As a broad construct that crosses traditional boundaries between the five developmental domains (social-emotional, adaptive, communication, and cognitive functioning, and motor development), social competence has undergone some of the challenges that have
highlighted the debate about intelligence as a construct. Kavale, Mathur, and Mostert (2004) reported that as adaptive behavior measures have been developed with more attention to construct validity, they have been found to “reflect universal and enduring dimensions, which provide confidence in judgments about social competence” (p. 447).

**Relationship between Social Competence and Challenging Behaviors**

Webster-Stratton and Hammond (1998) investigated low social competence and conduct disorders in Head Start programs, and found that preschoolers with low social competence were more likely to have concurrent conduct disorders. According to these researchers, this relationship may reflect that challenging behaviors are sometimes preceded by social skills deficits, and may arise, in part, to serve as functional substitutes for those more appropriate social communication and self-regulating skills that might otherwise help the child to get his or her needs met. On the other hand, the same study found only 22% shared variance between social competence categories and categories of conduct problems, noting that while children with social skills delays were more likely to have behavior problems, those children with conduct disorders were not more likely to have low social competence, suggesting that conduct disorders are not a reliable indicator of low social competence.

In their 2003 review of studies examining problem behaviors among young children, Qi and Kaiser reported that there was a significant relationship between problem behaviors and social skills deficits, with one study reporting that the relationship was significant for internalizing behaviors, but not externalizing behaviors (Kaiser et al., 2000, as reported in Qi & Kaiser, 2003b). A study that examined attention deficit disorder and language impairment diagnoses (Love & Thompson, 1988) concluded that these two disorders, typically thought of separately as a behavioral disorder and a
disability, appear together more often than has been reported, and noted that concerns are more likely to be reported regarding language and attention deficits when they are accompanied by externalizing (acting out) behaviors.

The following section describes in detail the concept of challenging behavior, a construct that may appear self-evident when a child’s behavior is disruptive and adults are overwhelmed, but which is actually a complex set of events that is highly sensitive to context and expectations. First, challenging behavior will be discussed in terms of the following: definition; prevalence; risk factors related to the child including temperament, individual differences, gender, and age; family and environmental factors; and outcomes. Following this discussion, interventions to address challenging behavior will be presented.

Challenging Behavior

The Center on the Social Emotional Foundations for Early Learning (2008) delineates three necessary conditions for a child’s behavior to be considered challenging. First, the behaviors must interfere with the child’s ability to participate in learning. For a young child, this may include difficulty with participating in satisfying play interactions with peers and teacher-directed learning activities. Second, the behaviors must represent a pattern that is present over time and must be of significant frequency, intensity, and duration to be of concern. Third, the behaviors are not amenable to those typical developmentally appropriate corrections that might be reasonably applied by parents and teachers. Excluded from the definition of challenging behaviors are those behaviors that might be developmentally expected, such as tantrums for a two-year-old.

Under the Individuals with Disabilities Education Act (IDEA, 1997, 2004) schools must consider behavior when developing a child’s Individualized Education
Program (IEP) during initial evaluation and eligibility determination, and when a student with an IEP faces disciplinary action for behavior related to a disability whenever “behavior impedes the child’s learning or that of others” (IDEA, 2004, 20 U.S.C. 141434 C.F.R. §300.324(a) (2) (i)). According to Turnbull, Wilcox, Stowe and Turnbull (2001), a consortium of positive behavioral support researchers and policy experts have defined "impeding behaviors" as those that:

1. impede the learning of the student or of others and those behaviors that are externalizing (such as verbal abuse, aggression, self-injury, or property destruction), are internalizing (such as physical or social withdrawal, depression, passivity, resistance, social or physical isolation, or noncompliance), are manifestations of biological or neurological conditions (such as obsessions, compulsions, stereotypes, or irresistible impulses), are manifestations of abuse, neglect, exploitation or maltreatment, or are disruptive (such as annoying, confrontational, defiant, or taunting), and

2. could cause the student to be disciplined [under] any state or federal law or regulations, or could cause any consideration of a change of the student's educational placement, and

3. are consistently recurring and therefore require functional behavioral assessment and the systematic and frequent application of positive behavioral interventions and supports. (p. 11)

Prevalence of Challenging Behaviors

Estimates of the proportion of children in the preschool population who demonstrate challenging behaviors vary, ranging from a 5-6% of young children in the general population, to 30-33 % of children from families with low income (Qi & Kaiser,
Qi and Kaiser’s (2003b) estimate was based on a review of 30 research studies that took place between 1991 and 2002, twenty of which included more than 100 participants. Across studies, the rate for problem behaviors for children from families with low-SES ranged from a low of 6.5% to a high of 57%, based on teacher and parent report.

Qi and Kaiser reported that the diverse linguistic and cultural background of more than 50% of the children might have contributed to some variability, presumably because of the importance of cultural expectations and communication fluency when addressing behaviors. In addition, parent and teacher informants reported different perceptions of problem behaviors, with a wider range for home reporting. Finally, different instruments and differences in cutoff parameters appeared to contribute to variability between studies. Nonetheless, Qi and Kaiser’s results were reported to be similar to other estimates for children of families with low income, notably Webster-Stratton and Hammond’s 1998 study of aggressive and disruptive behavior and deficits in social skills for Head Start four-year-olds. In that study, parents reported levels of challenging behavior in the clinically significant range for 23-33% of children and teachers reported significant concerns for 15-20% of children. Interestingly, the researchers included independent observations of the classroom and, based on these findings, reported that approximately 30% of children had high rates of aggressive and noncompliant behaviors. An earlier review of research (Campbell, 1995), reported that about 10-15% of preschool children from a variety of backgrounds were reported to have behavior problems.

Prevalence of challenging behaviors in child care settings. The presence of children with challenging behaviors in child care settings is on the rise as the number of preschoolers who receive care outside the home has increased in the past twenty years.
Indeed, participation child care has been encouraged by the National Education Goals Panel: Building a Nation of Learners, which established eight wide-ranging goals in 1990, the first of which was that, “By the year 2000 all children in America will start school ready to learn” (National Education Goals Panel, 1999, p. vi). As part of this school readiness effort, the panel monitored preschool attendance levels and reported in 1999 that early childhood program attendance has markedly increased for children with disabilities, with improvements shown in 49 states. Looking at the wider population of preschoolers, the National Center for Education Statistics (1996) reported that as long ago as 1996, 78% of four-year-olds, both those with and without disabilities, attended non-parental child care.

As noted in Chapter One, young children with social emotional and behavioral needs present significant challenges to teachers. In the Foundation for Child Development Policy Brief, *Prekindergartners Left Behind*, Walter Gilliam (2005) described these high behavioral needs children in three ways: first, they are often the most needy in terms of school readiness skills; second, they are the most likely to present continuing behavioral needs and learning difficulties as they move into the upper grades; and third, they are the most likely to drop out of school. Regrettably, this trajectory is reported to begin very early with surprisingly high expulsion rates for prekindergarten children, based on survey data from 40 states. Overall, preschoolers in the United States are three times more likely to be expelled for behavioral reasons than their school-age counterparts, with boys expelled at rates more than four times that of girls, and African-American children at rates two times more than that of Latino and Caucasian children and five times more than Asian-American children. Gilliam noted that for school-age children, expulsion is a measure of last resort, most often used after remediation and
resources have been exhausted. For preschoolers in private, federal and state-funded programs, expulsion may be used in lieu of remediation and support services; those programs with the least access to classroom-based behavioral consultation, such as private programs, were more likely to expel children with problem behaviors (2005).

Prevalence of challenging behaviors and early risk for mental illness. In other studies that focused on the prevalence of behavioral and mental illness in preschoolers using diagnostic criteria from the DSM-III and DSM-IV-TR (American Psychiatric Association, 2000), occurrence of psychiatric disorders for children in the samples ranged from .1% to 26.4% (McDonnell & Glod, 2003). Most of the children included in the seven studies examined were aged one to six years (total number of children across studies: 6,057). Most commonly reported were Axis I disorders: anxiety (ranging from 0.3-11.5%), depression (0.9-1.1%), conduct and oppositional defiant disorder (0.8-4.6%, and 0.7-26.4%, respectively), and attention deficit hyperactivity disorder (0.5-6.5%). Co-morbidity was commonly reported.

Lavigne et al. (1998a) also looked at psychiatric disorders with onset in the preschool years, and reported that for both disruptive disorders and emotional disorders, appearance of characteristics at an early age was “a strong risk factor for later diagnoses” (p. 1246). Given that a large number of children do not outgrow early onset disorders, the authors of this study recommended more proactive mental health care through early diagnosis and treatment.

Given that the prevalence of challenging behaviors is a concern for families and schools, and communities, and that early indicators may alert the family and school program to the need for intervention, it is important to identify children who may be at risk in their early years. Much research has been done in order to identify risk factors
related to the child, the family, and the environment. These factors are described here.

Risk Factors

Several potential risk factors for increasing levels of challenging behavior and deficits in the social skills that contribute to social competence have been identified. These are 1) child factors including individual differences such as temperament, developmental delays and atypical development in areas such as communication and cognition, gender, and age differences; 2) family factors such as parenting skills and discipline style; and 3) environmental factors such as peer rejection and classroom quality. These factors will be briefly discussed in light of research findings. Poverty, considered a highly significant risk factor for development of challenging behaviors and related difficulties at home and in the school and community, is not directly associated with behavior but rather is a construct in which family and environmental risk factors are nested, including stress in the home and harsh discipline (Christle, Nelson, & Jolivette, 2002; Nelson, Leone, & Rutherford, 2004).

Child Factors

Temperament. In examining Head Start preschoolers who demonstrated significant externalizing behaviors, Harden et al. (2000) reported that negative emotionality and externalizing behaviors were positively associated, and that emotional dysregulation was related to both externalizing and, to a lesser extent, internalizing behavior. Campbell and Ewing (1990) also reported that early temperament style (irritability and irregular sleep habits) was associated with later problem behaviors at age six. Lavigne et al.(1998a) reported temperament to be associated with DSM-related disorders (psychiatric disorders) and suggested that temperament may be more strongly associated with early onset problem behaviors, with maternal and family indicators more
strongly associated with later onset problems.

*Individual differences in development.* Studies have reported differences in levels of social competence and challenging behavior associated with cognitive delays (Christle, Nelson & Jolivette, 2002; Nelson, Leone, Rutherford, 2004) and language delays (Hester & Kaiser, 1998; Love & Thompson, 1988; Qi and Kaiser, 2004), indicating that those children who demonstrate disruptive behavior and limited social skills are also more likely to also have delays in language, social skills, problem solving and general intelligence. Qi and Kaiser (2003a) reported that children with language delays in a Head Start preschool engaged in more disruptive behaviors and initiated fewer appropriate social interactions than typically developing children. Further, children with expressive language delays engaged in more internalizing behaviors, and more externalizing behaviors were observed for children with receptive language delays. Disruptive behaviors were especially present at teacher-structured times. In a separate study, Love and Thompson (1988) found that in their sample of 116 preschool children referred for psychiatric services, nearly 65% also had a speech or language disorder, and reported that the overall rate for dual diagnosis of language disorder and attention deficit disorder was 48%.

*Gender.* As noted in a review of the literature regarding behavior problems for children from low income families, the relationship between gender and behavioral outcomes is not straightforward (Qi & Kaiser, 2003b). Reporting may be complicated by teacher and parent expectations for socially acceptable levels of activity and disruptive behavior for boys and girls (Egger & Angold, 2006; Wood, Cowan, & Baker, 2002), and by differences in developmental milestones for boys and girls in terms of prosocial skills such as perspective-taking and theory of mind (Walker, 2005) and self-regulation.
(Kochanska, Coy, & Murray, 2001). Several studies have reported differences between boys and girls in levels of externalizing and aggressive behaviors, as well as depressive disorders (Crick & Zahn-Waxler, 2003; Hay, Angold, Pawlby, Harold, & Sharp, 2003; Kazdin, 1985; Kendziora, 2004), though some trends change as boys and girls age (Kazdin, 1985). A higher prevalence of the psychiatric disorders ODD (oppositional defiant disorder) and ADHD (Attention Deficit Hyperactivity Disorder (Lavigne, et al., 1996; Eggar & Angold, 2006) has been reported for preschool boys, while other studies have either not examined gender, have not found gender to be significantly correlated, or have found gender to be correlated with rates of challenging behaviors and psychiatric disorders in limited ways (Eggar & Arnold, 2006; Qi & Kaiser, 2003b).

Egeland, Kalkoske, Gottesman, and Erikson (1990) found that while there was a trend for “acting out” preschool boys to continue to have problem behaviors in first grade to a greater extent than “acting out” preschool girls, those differences disappeared by third grade (p. 898). In addition, the proportion of socially competent girls and boys was the same for grades one to three. Campbell and Ewing (1990) also reported that gender was not a risk factor in a study that examined follow-up of preschoolers at age nine.

Crick and Zahn-Waxler (2003), while reporting differences between males and females for aggression and externalizing behaviors were careful to note that nonphysical relational aggression was found to be more common for girls and may be under reported, and that gender expectations may play a role in the likelihood of an adult’s recognition of aggression and noncompliance. In their study examining peer rejection associated with aggression, Wood, Cowan, and Baker (2002) hypothesized that teachers have different expectations for male and female levels of aggression with the expectation that girls are generally less aggressive, and suggested that teachers may actually under report physical
aggression in boys, because aggression is more expected, and over report aggression in girls because it is less expected. Stowe, Arnold, and Ortiz (2000) reported that disruptive behavior and deficits in social interaction skills were reported for preschool boys who had lower levels of language skills. However, the authors cautioned about potential “coder bias”, as expert observers reported “no significant difference between the percentage of off-task behavior that was disruptive in boys and girls. It may be that there is, in fact, no difference between percentages of disruptive, off-task behavior for boys and girls during learning situations” (p. 533). The authors also suggested that girls’ developmental needs may be less apparent to classroom teachers.

To summarize the research concerned with gender as a factor in individual differences in social development and problem behaviors, while there is some evidence supporting the view that boys may be generally more likely to develop behavioral disorders, in particular externalizing problem behaviors, the association between gender and problem behaviors remains unclear. Differential behavioral expectations for boys and girls, less attention to internalizing disorders such as depression and anxiety in childhood, and the role of clinical judgment regarding behavioral markers for clusters of behaviors, such as “attention deficit”, “aggression” and “oppositional defiance”, are factors that may influence findings and are areas that require more research.

Age. Much of the literature has noted that early onset of challenging behavior is a well documented risk factor (Campbell & Ewing, 1990; Conroy, Hendrickson, & Hester, 2004; Kazdin, 1985; Lavigne, et al., 1998; National Institute of Mental Health, 2000; Shonkoff & Phillips, 2000). In a series longitudinal studies (Campbell et al., 1984, 1986; Campbell & Ewing, 1990) first conducted when children were age three, with follow-up at ages four, six, and nine, researchers found that behavioral observations of children at
three years old indicating inattention and higher activity level predicted teacher ratings of problem behavior at age nine. In the follow up study of children at age nine, 67% of children considered “hard-to-manage” at preschool and who showed behavioral problems at age six, met criteria for an externalizing disorder at age nine, according to maternal reports on behavior using DSM-III criteria (Campbell & Ewing, 1990). While noting that outcomes for children diagnosed in the preschool years with DSM diagnoses had been little studied, Lavigne (1998a) reported that children with early diagnoses of disruptive disorders, such as conduct disorder, oppositional defiant disorder, and attention deficit disorder were eight to nine times more likely to have a disruptive disorder diagnosis in elementary school. Children with diagnoses of emotional disorders, such as anxiety and depressive disorders, were four to six times more likely to have emotional disorders at school age. In summing up the results of the study that included 500 children, the researchers wrote, “odds ratios indicate that having an emotional or disruptive disorder is a strong risk factor for later diagnosis” (p. 1246). While acknowledging some of the difficulties of early diagnosis of psychiatric disorders in preschoolers, Egger and Angold’s 2006 review of the literature in this area reported that the prevalence of psychiatric disorders among preschoolers appeared to be similar to that in the general population; in their conclusion they focused on the importance of early intervention and cautioned against inaction, given that “just as capacities to regulate emotions and behaviors develop during the preschool period, so do dysfunctions in multiple systems” (p. 327).

Family Factors

Several studies have described a relationship between family factors and young children’s problem behaviors, including maternal depression and home stress level
(Egeland, Kalsoke, Gottesman & Erikson (1990), discipline style (Campbell & Ewing, 1990; Nix et al., 1990; Webster-Stratton & Hammond, 1998). Specifically, “maternal negative control” (Campbell & Ewing, 1990, p. 885) and harshness of discipline, including slapping, hitting, and yelling (Webster-Stratton & Hammond, 1998), were associated with externalizing behaviors in preschoolers. In addition, Webster-Stratton & Hammond (1998) found that positive maternal interactions, such as offering praise for appropriate behavior, were positively associated with social competence but appeared to have less of an impact on conduct problems.

Researchers have noted that the relationship between parental attitude and actions, and child behaviors is complex. According to Campbell & Ewing (1990), mothers who are powerful and assertive are more likely to view their children’s behaviors as inappropriate; children with difficult behaviors may be more likely to trigger negative responses from their mothers. Nix et al., (1999) found that mothers’ hostile attribution tendencies were positively related to harsh discipline practices and externalizing behavior in prekindergarten. Hostile attribution was described as the likelihood that when presented with a mother/child scenario, mothers would more likely attribute a child’s action to the child’s negative intent rather than an error or chance. For example, in a scenario in which a child is bouncing a ball and the ball hits the mother, the mother may attribute the event to error (“it slipped”) or intent (“she threw it at you”) (p. 899). Harsh discipline and hostile attribution during the kindergarten year predicted later externalizing behaviors and discipline problems at higher grade levels.

Other family factors such as parental psychopathology, criminal activity, and low levels of education, as well as family conflict and instability, have been associated with conduct problems and low social competence (Christle, Nelson, & Jolivette, 2002;

Environmental Factors

Three categories of environmental factors are important to consider here, including 1) the community, especially in terms of factors related to poverty; 2) the classroom; and 3) peers.

Community and poverty as a special risk factor. As noted in Chapter One, poverty is considered a highly significant risk factor for the development of challenging behaviors and related difficulties. Poverty is not a single entity directly associated with problem behaviors in young children; rather, it is a construct in which environmental risk factors associated with poverty are nested. Identified risk factors associated with poverty include stress in the home, harsh discipline, parental mental health issues, and limited exposure to books and print (Adams, 1988, Christle, Nelson, & Jolivette, 2002; Nelson, Leone, & Rutherford, 2004). Family resources play an important role in children’s health, parental psychological well-being and parenting styles, and safe neighborhoods. Shonkoff and Phillips summarized the research this way: “the persistent economic hardship that affects so many children is likely to be highly detrimental, especially during the earliest years of life” (Shonkoff & Phillips, 2000, p. 295).

Many of the family factors associated with problem behaviors in young children
are also associated with poverty, including parenting style, harsh discipline, parent mental health, family composition and stability, and home-life stressors such as job loss and mobility (Nelson, Leone, & Rutherford, 2004; Qi & Kaiser, 2003b; Shonkoff & Phillips, 2000). The extent to which these family factors are associated with larger environmental factors reflects a complex relationship between child behaviors and well-being, family resources, and the environmental stressors associated with poverty (Shonkoff & Phillips, 2000). Two other environmental factors may also be thought of as school-related: classroom quality and peer relationships.

Classroom qualities. In a review of research on risk factors and school readiness compiled for the U.S. Department of Health and Human Services, the authors of “Off to a Good Start” (Huffman et al, 2001) examined three aspects of school programs for young children: nonmaternal care, classroom qualities, and classroom relationships. In terms of the impact of nonmaternal care, the reviewers noted that though there was some evidence that nonmaternal care is associated with increased parent reporting of externalizing behaviors for five-year-olds, the relationship was not significant when parenting style was considered. In terms of classroom qualities, factors such as number of children per class and school facilities were not significant; however, teacher-child and peer relationships were factors. According to Huffman and fellow reviewers in the 2001 report, positive relationships with teachers are associated with improved outcomes for both children at risk for school difficulties and non-risk samples. This is also the view of researchers examining the relationship of preschool quality and outcomes for third graders. Peisner-Feinberg et al. (2001) found that closeness of the teacher-child relationship in preschool was positively associated with cognitive and social skills at third grade, with stronger positive effects for children with at-risk factors in their background.
Pianta et al. (2005) also examined classroom indicators, and found that factors such as child:staff ratio, location, and length of day were not significant, and that as has been found with school age samples, child characteristics, teacher qualities, and quality of relationships were more important factors. As Pianta reported:

To the extent that any single predictor or set of predictors accounted for increments in explained variance, the findings can be summarized as follows. First, global quality…was lower, by and large, when the classroom was composed of a majority of children below the poverty line, teachers did not have BA-level training in early childhood, and teachers expressed more traditional beliefs about children in which child–adult interactions are understood from an adult-centered perspective. (p. 156)

It was noted that the relationship between teaching credentials and classroom quality is not straightforward, and that it appears that, while attaining a bachelor’s degree has some relationship to classroom quality, having specialized training in early childhood is also associated with higher quality. The authors of this study suggested that emphasis be given to professional development focusing of the classroom as a setting for instruction, opportunities for learning, and teachers’ attitudes and skills.

*Peer relationships.* In studies on peer rejection, Dodge and fellow researchers (2003) examined the relationship between early peer rejection and antisocial behavior in children from kindergarten to grade three and in a separate study of children in grade five through grade seven. They reported that early peer rejection is associated with increasing levels of antisocial behaviors, in particular for those children who demonstrated early aggressive behavior. Noting that for typically developing children, aggressive behavior diminishes over time as children learn perspective-taking, social problem solving, empathy, and cooperation, the researchers found
that peer rejection is associated with an increasing tendency to “react aggressively among children who are so disposed” (p. 391), and suggest that for some children rejection may lead to less opportunity to learn prosocial skills. It was also suggested that the mechanism, whether antisocial behavior escalates in children who experience peer rejection or aggressive tendencies diminish when children experience peer acceptance, is not yet clear.

Wood, Cowan, and Baker (2002) examined peer rejection and aggressive behavior with a specific interest in gender, and reported that peer rejection was associated with aggressive behavior in preschool boys, and that noncompliance, hyperactivity, social withdrawal were associated with peer rejection for both boys and girls. While noting the limitations of sample size in their study (N=76), the authors suggested that early intervention for behavioral disorders not only focus on improving behavior, but also on developing peer interaction skills for both boys and girls.

Summary of Risk Factors

Several potential risk factors for increasing levels of challenging behavior and deficits in the social skills have been presented, including child factors such as temperament and age at time of onset of problem behaviors, family factors such as harsh discipline style and factors associated with poverty, and environmental factors such as peer rejection and limited teacher-child interactions. The relationship between risk factors, child behaviors, and long term outcomes is complex. As noted by Huffman et al. (2001), risk factors are generally thought of as markers that serve as predictors of outcomes; however, risk factors are not necessarily causal and do not necessarily serve as intervention targets. Risk factors do, however, suggest which groups of children may be more at risk and which may require more intensive prevention and intervention efforts in
order to avoid the long term trajectory that is more likely when young children persistently display aggression and other forms of challenging behaviors.

*Developmental Trajectory and Outcomes*

As indicated in the discussions on prevalence and risk factors, early onset of challenging behaviors is associated with long term negative outcomes including difficulties with staying in school, conducting satisfying relationships, and participating in community life. Through research it is now well established that early problems and diagnoses are associated with lower school achievement, juvenile delinquency, peer rejection, and increased levels of mental illness, and that findings are stable over time (Campbell & Ewing, 1990; Egeland, Kalkoske, Gottesman, & Erickson, 1990; Kendziora, 2004; Lavigne et al., 1998a; McDonnell & Glod, 2003; Nagin & Tremblay, 1999). Indicators for later outcomes can be documented from a very early age. In a longitudinal study by Jimerson et al. (2003) examining the precursors to dropping out of high school, factors identified in the first three years of life were found to be significant as predictive variables; the researchers suggested that difficulties with behavior, peer relationships, and school achievement, currently considered risk factors, may more aptly be thought as “midpoint markers of a lengthy developmental pathway to dropping out” (p. 527).

While the factors associated with behavioral difficulties in the preschool years are complex, and while no set of indicators predicts the path for any one child, the trends associated with early problem behaviors are clearly concerning enough to warrant action. Recently positive behavioral support interventions that address troubling behavior in young children and that encourage teachers to proactively teach social skills have been identified in the research literature as promising. These intervention strategies will be
described in the next section.

**Intervention: Addressing Challenging Behavior**

Given the far reaching concerns related to challenging behavior in young children, it is not surprising that researchers, educators, and policy-makers have been interested in effective intervention approaches. Positive behavior supports (PBS) is both a general approach and a highly specified behavior change methodology that has received much attention in the research literature and recently in school settings (Bambara, 2005; Carr et al., 2002; Center on the Social Emotional Foundations of Early Learning [CSEFEL]; Sugai & Horner, 2007; Technical Assistance Center on Positive Behavioral Supports and Intervention [TACSEI]). PBS will be defined as both a school-wide model and as a behavior change model for individual students. Included will be a description of the three-tier models associated with positive behavior supports, and a description of the PBS assessment and behavior planning process, including functional behavior assessment.

*Positive Behavioral Support: Background and Definitions*

According to Lucyshyn, Horner, Dunlap, Albin, and Ben (2002), positive behavior support (PBS) “is a collaborative assessment-based approach to developing effective individualized interventions for people with problem behavior” (p. 7). With applications at school, preschool, home, and community, PBS serves as both a preventive measure and as an intervention for individuals and groups. It has been defined in several ways in the literature, reflecting its evolving status and the complexity of the ideas and components encompassed in its framework. Definitions differ in emphasis rather than in principle, however; and there is general agreement that as both an approach to behavior change and a method to create behavior change, positive behavior support is predicated on two sets of ideas.
The first set of ideas was developed through applied behavior analysis and behavior theory and proposes the following: that behavior is learned, measurable, predictable, and malleable, that behavior is related to environmental factors, and that behavior serves a purpose (or function) for an individual seeking to get his or her needs met, even when behavior is inappropriate (Bambara, 2005; Carr & Durand, 1985; Carr et al., 2002). Originally based on controlled clinical experiments, applied behavior analysis is designed, by definition, to examine “socially important” behavior in more natural environments (Baer, Wolf, & Risley, 1968, p. 92). It is, in short, the application of what researchers have found out about human behavior, learning, and the environment from experiments in more controlled settings, with the purpose of describing and assisting in behavior change. As such, it allows for the development of behavior change procedures that are based on theoretical principles, that are precise, and that are meaningfully practical to the individual and others (Baer et al. 1968).

The second set of ideas provides further grounding for PBS in the importance of identifying meaningful and practical supports that are socially relevant and valued. This set of ideas includes “person-centered planning” (Bambara, 2005, p. 5; Carr et al., 2002), self-determination (Bambara, 2005), and inclusion (Carr et al., 2002; Lucyshyn et al., 2002). Citing Kincaid (1996) and others, Carr et al. (2002) defined person-centered planning as an individualized process to set goals and implement behavior plans that “address the unique characteristics of the individual” (p. 6). It is closely tied to the concept of self-determination, that process of assuring that individuals, including those with disabilities, have opportunities to make decisions that affect their lives. In accordance with these ideas, PBS interventions take into account the dignity of the individual and the specific context of the intervention, whether home, school, or
community, each with its own set of values and beliefs (Lucyshyn et al., 2002). These ideas were originally promulgated by the disabilities movement for fair treatment, beginning in the 1960s and moving squarely into school settings with the coming of legislation in the 1970s through the 1990’s related access to education, work and community, and inclusion in local schools for students with special needs (Bambara, 2005; Carr et al., 2002; Education of All Handicapped Children Act, 1975; Individuals with Disabilities Act, 1997; Lucyshyn et al., 2002).

**Contributions to PBS from Applied Behavior Analysis**

Defined as the systematic application of procedures for the purpose of improving behavior (Lewis, Lewis-Palmer, Newcomer, & Stitcher, 2004), applied behavior analysis calls for analyzing behavior in the context of the environment, followed by controlled experimental attempts at behavior change using carefully designed strategies and alterations of the environment, and then analysis of the experimental conditions to determine if changes in conditions are related to changes in behavior. Applied behavior analysis was originally used with individuals with developmental disabilities, in particular cognitive and language delays in residential settings, and then with individuals with mild delays and emotional behavior disorders (Lewis et al., 2004).

Based on an understanding of operant behavior, applied behavior analysis assumes that behavior consists of a multi-part sequence in which the presence of an antecedent stimulus (A) precedes a behavior (B), which in turn is followed by a consequence (C). The A-B-C relationship is a functional one, whereby altering antecedents and consequences can serve to alter behavior. There are at least three ways in which applied behavior analysis has contributed to PBS: first, by providing a theoretical framework; second, by providing effective assessment and intervention techniques; and
third, by introducing the conceptual framework and set of procedures that comprise functional behavior assessment (Bambara, 2005).

*Theoretical framework.* The theoretical framework that informs applied behavior analysis, and which in turn informs positive behavior support, is based on behavior research work by Skinner and others (Baer et al., 1968; Lewis et al., 2004) that defined the principles of operant behavior, that is, behavior which is under the control of the individual. In brief, behavior theory assumes that operant behavior occurs in an invariable three-part sequence known as the three-term contingency that is comprised of A) an antecedent stimulus, B) a behavior response, and C) a reinforcing consequence (Lewis et al., 2004). In behavior theory the following definitions apply: 1) the antecedent stimulus, or event, is the stimulus that directly precedes the occurrence of behavior; 2) the behavior refers to observable behavior, including actions and verbal response; 3) consequences refers to conditions or events that take place after the behavior that may or may not serve to reinforce and maintain the behavior; 4) setting events refers to those events that occur in the “surrounding context of the behavior that influence the three-term contingency of antecedent, behavior, and consequence” (Lewis et al., 2004, p. 525). Because of the importance of setting event, the behavior sequence is sometimes referred to as the four-term contingency (Dunlap et al., 2005, p. 33). Dunlap presented an example of the four-term contingency as seen in Table 2.2. It is through this kind of theoretical analysis that behaviors and environmental events can by viewed as variables that are functionally related and are to some extent within the control of a behavior plan team. According to Lewis et al. (2004), “applied behavior analysis can define the functional relationship between behavior and environmental events through the examination of observed behaviors and environmental factors…(and) enables us to predict and control behavior by
Table 2.2

Four-Term Contingency Model

<table>
<thead>
<tr>
<th>Setting events</th>
<th>Antecedent Events</th>
<th>Behavior</th>
<th>Maintaining consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student has fight on the bus before coming to school</td>
<td>Teacher passes out pop quiz.</td>
<td>Student tears up paper and refuses to complete quiz.</td>
<td>Student is sent to office and does not return to class until second activity period.</td>
</tr>
</tbody>
</table>

Note. From Dunlap, Harrower & Fox, 2005

altering the probability that a specific behavior will occur” (2004, p. 524.)

Dunlap et al. (2005) listed three important theoretical principles that behavior theorists have contributed to positive behavior support. These are that behavior is lawful; behavior is functional and communicative; and behavior is context-related. When these principles are combined in the positive behavioral support model, they make the relationship between setting events, antecedents, behaviors, and consequences more clear and provide a systematic way to alter environmental variables and teach new behavioral responses. Understanding behavior as lawful allows behavior teams to determine which variables affect behavior and how alterations in the environment might contribute to positive change. Understanding behavior as functional and purposeful allows behavior teams to develop interventions that assist the individual in getting his or her needs met in other, more appropriate ways, thereby replacing the problem behavior. Understanding behavior as context-related leads to the systematic exploration of how altering the environment, both the setting events and antecedents that illicit certain behaviors and the consequences that maintain those behaviors, may serve to alter the behavior itself.

Assessment and intervention techniques. It has been observed that applied
behavior analysis research is “eminently pragmatic; it asks how it is possible to get an individual to do something effectively” (Baer et al., 1968). In order to answer this seemingly straightforward question, reported in the first issue of the Journal of Applied Behavior Analysis in 1968, researchers and behavior specialists have worked over the past 40 years to develop a set of procedures that allow them to systematically observe and describe behavior and to implement behavior interventions that have been found to be effective. In doing so, they have built a research-base that is well regarded and that serves as the foundation for positive behavior support (Bambara, 2005; Carr et al., 2002).

Researchers have developed a comprehensive set of procedures and tools to assess behavior and the environment, to generate hypotheses about the functional relationships between behavior and its antecedents and consequences, and to systematically test hypotheses by altering variables present in the environment. They also have developed intervention strategies based on behavior theory that have been found to be effective in changing behavior, such as altering the environment to reduce antecedent triggers, modifying expectations to match the individual’s skills, teaching new replacement skills, and selectively reinforcing behavior in order to promote an increase in more desirable behaviors and to make undesirable behavior less efficient and less reinforcing (Bambara, 2005, Lucyshyn et al., 2002). In particular, a set of procedures known as functional behavior assessment have been instrumental in redefining problem behavior in a more pragmatic and positive light and been shown to be effective in carrying out assessment of behaviors and planning for behavior change (Horner, Sugai, Todd, & Lewis-Palmer, 2000). Because functional behavior assessment plays a key role in applied behavior analysis (Fox & Gable, 2004) and positive behavior support (Dunlap & Kincaid, 2001; Harrower, Fox, Dunlap, & Kincaid, 2000), it will be briefly described
here in the context of applied behavior analysis and will receive more in-depth treatment
in the section on positive behavior support.

behavior assessment (FBA) as “evolving” from a methodology used in assessment of
individuals exhibiting problem behaviors to “a system of recommended practices in
schools” (p.161). Closely tied to applied behavior analysis and positive behavior support,
the term functional behavior assessment describes a comprehensive information
gathering process that serves as a basis for developing an individualized behavior support
plan (Sugai, Lewis-Palmer, & Hagan-Burke, 2000). The basic elements of a FBA were
outlined by O’Neill et al. in their 1997 practitioner’s handbook as five outcomes of the
functional behavior assessment process. The five outcomes are 1) a clear description of
the problem behaviors; 2) identification of events, times, and situations that predict when
behaviors will and will not occur; 3) identification of the consequences that maintain
behaviors and what function(s) the behaviors appear to serve for the individual; 4)
development of summary statements or hypotheses that describe the behaviors of
concern, the conditions under which behaviors occurs, and the outcomes that reinforce
and maintain behaviors; and 5) the collection of direct observation data that support the
summary statements (O’Neill et al, 1997, p. 3). The essential components of FBA are
based on the principles of applied behavior analysis (Fox & Gable, 2004) and provide
procedures that examine behavior in terms of the three-term contingency (antecedent,
behavior, consequence).

According to Bambara (2005), the term functional behavior assessment was
coined in the 1997 federal legislation that addressed the educational needs of students
with disabilities (Individuals with Disabilities Act [IDEA], 1997). Reflecting the growing
interest in research-based interventions in education, FBA has become a required process when a student’s behavior impedes learning. FBA procedures are based on experimental procedures in applied behavior analysis, notably the careful description of observable behaviors, the evaluation of environmental variables that serve to strengthen the behavior, and manipulation of those variables to determine which contribute to the behavior in a functional way.

Baer, Wolf, and Risley (1968) described applied behavior analysis in a well-known and seminal article in ways that anticipated later descriptions of functional behavior assessment. Both the earlier applied behavior analysis experimental models and the later functional behavior assessment methodologies include procedures that are highly specified and which yield detailed information well-suited to practical and relevant behavior planning. According to Baer et al. (1968), the practical nature of an applied science requires that any study of problem behaviors must take place in the individual’s “usual social settings” and also requires that the behaviors of concern must be “socially important” to the individuals involved, and not just of theoretical interest to researchers (p. 92). This emphasis leads to the second set of ideas that has influenced positive behavior support: person-centered planning and values.

**Contributions to PBS from Person-Centered Planning and Values**

Person-centered planning and values is a concept that is based in community supports for individuals with disabilities (Bambara, 2005). It encompasses self-determination for the individual, as well as recognition of family and local values, and emphasizes the importance of assisting the individual with relevant behavior changes that can enhance quality of life and involvement in family, school, and community activities (Bambara, 2005; Lucyshyn et al., 2002). As such, the goals established through a positive
behavior support process must be valued, relevant and achievable, and changes must be feasible to implement and durable. The individual and the individual’s behaviors are viewed in the context of ecological systems: the immediate environment including behavioral demands, expectations, and opportunities, as well as the family, classroom, and community values, practices, and resources (Carr et al., 2002).

Discussion of person-centered planning and values in the literature emphasizes the importance of balancing a person-centered approach with science (Carr et al., 2002; Lucyshyn et al., 2002). As Carr et al. (2002) noted in their review of positive behavior support:

Science tells us *how* we can change things, but values tell us *what* is worth changing. Guided by this precept, PBS represents a melding of values and technology, given that strategies are judged not only with respect to efficacy (a technological criterion) but also with respect to their ability to enhance personal dignity and opportunities for choice (a values criterion). (p. 6)

In recognition of the importance of the individual and the central role played by the individual’s family and teachers when carrying out effective planning and intervention, person-centered values also includes an emphasis on teaming.

*Role of stakeholders and teaming.* In reflecting the emphasis on person-centered planning and values, positive behavior support emphasizes the importance of an active role for stakeholders, whether family, teachers, and/or school administrative staff. This active role may include providing assessment information, helping to formulate goals that match individual and local values and organizational structures, evaluating proposed interventions for feasibility and importance, carrying out a behavior support
plan, and evaluating outcomes (Carr et al., 2003; Lucyshyn et al., 2002). With stakeholder participation, interventions are more likely to be viewed as socially valid and are more likely to be implemented over the long term.

Stakeholders and expertise. As the tasks of assessment and intervention have moved from being the sole domain of researchers and behavior experts, there has been some discussion in the literature acknowledging the importance of including stakeholders and describing the difficulties of transferring expertise in assessment and implementation to non-experts such as general education teachers. In particular, teachers have been reported to be less informed about the theoretical framework for behavior change, less evidence-based and systematic in their approaches to behavior, and less available to meet and plan due to their multiple responsibilities in the classroom (Crone & Horner, 2000; Duda et al., 2004; Scott et al., 2005; Stormont et al., 2005). With that in mind, it is important to provide support to teachers and administrators when attempting to implement PBS as a school-wide model.

Summary of Background and Definition for PBS

Positive Behavioral Support (PBS) is an assessment-based approach to developing effective individualized interventions that address problem behaviors. PBS draws from two theoretical frameworks: applied behavior analysis and person-centered planning. First, applied behavior analysis (ABA), with its emphasis on behavior as learned, predictable, and influenced by the environment, has contributed systematic analysis and intervention procedures that identify and address problem behaviors through prevention and teaching. In particular, an ABA tool known as functional behavior assessment (FBA) has become part of the PBS approach. FBA includes a set of assessment procedures that are instrumental in describing problem behavior in terms of
function and environmental factors.

Second, person-centered planning is concerned with identifying behavior supports that are practical, relevant, and valued by the individual and those who are expected to carry out interventions. It emphasizes the role of stakeholders, such as family members and teachers, during assessment, planning, and intervention. As FBA and PBS procedures have been shown to be effective for individuals, there has been a growing interest in applying the same assessment and intervention techniques in the schools, resulting in the school-wide model.

Positive Behavioral Support: School-Wide Model

The evolution of positive behavior supports from a set of procedures established to assist individuals in clinical settings to a universal school-wide model is a response to three related developments. First, schools have become interested in school-wide PBS due to legislative requirements guiding schools’ responses to challenging behaviors (Crone and Horner 2003; Gable et al., 2003). Second, there is an increasing interest within the education community in using problem-solving frameworks to address both academic and behavior needs, as demonstrated in the use of three-tier school-wide models that address tier-one universal screening and effective teaching, tier-two targeted group intervention using diagnostic teaching, and tier-three intensive, individual interventions using functional behavior assessment and behavior support plans (Sugai, 2008). Third, the increasing availability of effective research-based procedures and tools have provided schools with a methodology for carrying out mandated and research recommended assessment and intervention practices (Dunlap & Kincaid, 2001). These three developments will be discussed in relation to school-wide PBS, followed by an explanation of the three-tier model for behavior supports and descriptions of two
important elements of tier-three interventions, functional behavior assessment and 
behavior support planning. This discussion regarding school-wide PBS includes an 
overview of legislative requirements.

Legislative Requirements

As concerns about school safety, behavior, and student learning have increased, 
and as policy-makers have become increasingly interested in schools adopting evidence-
based strategies and data-based decision-making models, updates to the federal education 
laws have directly addressed challenging behavior. In 1997, federal legislation known as 
the Individuals with Disabilities Education Act (IDEA, 1997) called for schools to 
implement positive behavior supports for children whose behavior impeded learning. In 
doing so, educational responses to academic problems and behavioral problems became 
more intertwined. In keeping with proactive screening and remediation efforts for 
academic learning needs, schools were required to also be more proactive when dealing 
with problem behaviors. Focus was to be on instruction and supports, rather than on 
punishment, found by research to be ineffective in many cases, and considered less 
desirable in light of humanistic values (Gable et al., 2003; Lucyshyn et al., 2003).

In articles advising schools and professionals regarding implementing IDEA, 
Gable et al. (2003) and Crone and Horner (2003) highlighted several areas of the law that 
are germane to challenging behavior. Specifically, according to IDEA (1997, 2004) when 
children present with challenging behavior, the following are required:

- The Individualized Education Plan (IEP) team shall in the case of a child whose 
  behavior impedes his or her learning or that of others, consider, when appropriate, 
  strategies, including positive behavioral interventions, strategies, and supports to 
• Either before or not later than 10 days after taking disciplinary action (change in the placement of a child with a disability to an appropriate interim alternative educational setting, another setting or suspension, for not more than 10 school days), if the local educational agency did not conduct a functional behavioral assessment and implement a behavioral intervention plan to address that behavior; or if the child already has a behavioral intervention plan, the IEP Team shall review the plan and modify it, as necessary, to address the behavior. (IDEA 1997 Pub.L. No.105-17 [615(k)(l)(B)])

• In addition, in order to assist school personnel to carry out these roles and responsibilities: State and localities shall address the identified needs for inservice and preservice preparation to ensure that all personnel who work with children with disabilities (including both professionals and paraprofessionals who provide special education, general education, related services, or early intervention services) shall have the skills and knowledge necessary to meet the needs of children with disabilities. (IDEA 1997 Pub.L. No.105-17 [653(3)(D)9vi])

In response to the 1997 mandates related to behavior supports and inclusion, many states have developed regulations on school discipline and the uses of functional behavior assessment and behavior planning. In addition, states have addressed training issues through state performance plans (Gable et al., 2003) and the federal government has made information available through grants and technical assistance Web sites (Center on the Social Emotional Foundations for Early Learning [CSEFEL]; Technical Assistance Center on Positive Behavioral Supports and Intervention; Technical Assistance Center on Social Emotional Intervention for Young Children [TACSEI]).

These technical assistance centers emphasize the relationship between prevention,
identification, and individualized support using a three-tier approach.

Problem-Solving Framework: The Three-Tier Model

A three-tier problem solving framework is another factor that has contributed to the expanding interest in school-wide positive behavioral supports. There are several three-tier models currently supported by research and being employed in schools. These are Response to Intervention (RTI), focused on academics (Sugai, 2008), school-wide positive behavioral support (Horner et al., 2005; Sugai, 2008), with a focus on school-age behavior improvement and social skills instruction, and preschool positive behavior support (Center on the Social Emotional Foundation of Early Learning) based on the Teaching Pyramid (Fox et al., 2003).

Each of these models presents a problem-solving framework based on a similar set of characteristics: universal screening, data-based decision-making and problem solving, continuous progress monitoring, using student performance as outcomes measures, use of evidence-based interventions, and use procedures to ensure and coordinate implementation (Sugai, 2008). Characteristic of school-wide systems, each is designed to create system-change through the development of shared vision, leadership, and collaboration (Liauspin et al., 2004; Gresham, 2005; Fairbanks, Sugai, Guardino, & Lathrop, 2007; Sugai, 2008). The models reflect an integrated approach to assessment and intervention (Liauspin, Jolivette, & Scott, 2004) and have appeared together in the literature as related efforts to improve prevention, identification, and intervention. The two school-age models are depicted for comparison purposes in Figure 2.1 and will be discussed in more detail in the section on PBS as a three-tier model.

Availability of Research-Based Methodologies

A third development that has supported use of positive behavior supports is the
improved availability of research-based methodologies. Horner et al. (2005) and others have noted that traditional response to behavior problems have been aimed at individual children in response to behavior that has already occurred. With changes in legislation and more information available about research-based methods, the education community has a new level of interest in the more preventive and proactive PBS model and procedures (Gale et al., 2003). School sponsored training and access to manuals and
materials through commercial publishers and technical assistance Web sites has been greatly expanded (Dunlap & Kincaid, 2001; Gable et al., 2003). In their review of four functional behavior assessment manuals which were described as practical and research-based, Dunlap and Kincaid (2001) were cautiously enthusiastic, noting that “new laws and policies regarding functional behavior assessment and positive behavior interventions and supports have opened opportunities that never existed before...(resulting in a) deluge of new materials” (p. 375). At the same time, these and other authors have noted some the difficulties surrounding implementation of PBS procedures. Implementation and teacher fidelity issues will be discussed in the section on professional development.

_School-Wide Positive Behavioral Support: Details of a School-Age Behavior Model_

As a school-wide model developed for school-age programs, PBS is implemented at three levels (Technical Assistance Center on Positive Behavioral Supports and Intervention; Sugai, 2008). Each will be described, as will several characteristics of school-wide implementation and systems change.

_Tier-One: Universal Primary Interventions_

This level targets all children and, as noted by Horner et al. (2005), “involves all adults, applies to all settings, and covers all times” (p. 361). At Tier-One all students are introduced to the school’s social skills curriculum and expectations for behavior, and receive positive feedback when demonstrating appropriate behavior. As indicated in figure 2.2, Sugai estimated that 80-90% of a school population typically responds at this level. Horner et al. (2005) estimated the percentage of students responding at the Tier-One level to be 80%. For those students who demonstrate at-risk behavior despite universal efforts at Tier One, as identified through observation and screening measures, Tier-Two measures are put into place.
Tier-Two: Secondary Prevention Interventions

This level targets children whose behavior indicates a need for more support, but who do not require individualized intervention. Using supplemental group instruction of targeted social skills, peer supports, and check-in, this second level of support is intended to reduce the occurrence of problem behaviors and improve social competence (Sugai, 2008). Horner et al. (2005) described efforts at this level as “teach and monitor” (p. 363). That means making behavioral expectation clear, teaching those expectations, and monitoring behavior in ways that encourage the expected behaviors. According to Horner et al. (2005), typically 15% of students are in this category. Sugai (2008) estimated that this level serves 5-10% of students.

Tier-Three: Tertiary Prevention

This level of support is sometimes referred to as the “top of the pyramid” (Center for Social Emotional Foundation for Early Learning [CSEFEL]). At this level, individualized supports are offered using the assessment and intervention strategies developed over time by behavior specialists, researchers, and school personnel using the experience gained through applied behavior analysis research. Horner et al. (2005) reported that results for individuals are positive when supports are intensive, comprised of individualized functional assessment and behavior support planning, and given adequate resources and training for staff.

Positive preliminary results for school-wide implementation have also been reported, with indications that “a combination of primary, secondary, and tertiary prevention of problem behavior through school wide PBS can make a substantive difference” (Horner et al., p. 364). Estimates of the percentage of students requiring Tier-Three individualized intervention was 5% according to Horner et al. (2005) and 1-5%
according to Sugai (2008). Horner et al. (2005) noted that the presence of risk factors and protective factors are relevant to whether or not students required additional level two and three supports, and reported that results from a study by Sugai based on discipline referrals from 321 schools indicated that 81.9% of students responded at Tier-One, 10.5% required additional Tier-Two support, and 7.5% of students required individualized Tier-Three support (2002, as cited by Horner et al., 2005).

*Preschool Positive Behavioral Support*

The early childhood community has also been interested in using a tiered approach to address behavior needs among preschoolers. The Center on the Social Emotional Foundation for Early Learning developed a three-tier model for use at preschool that is very similar to the school-age model. The model incorporates elements of both applied behavior analysis and person-centered planning, and in addition emphasizes the importance of relationships, considered essential to early learning (Brazelton & Greenspan, 2000; CSEFEL; Landy, 2002). The model is based on the ‘Teaching Pyramid”, which has been described in the early childhood literature (CSEFEL; Fox et al., 2003; National Association for the Education for Young Children; Technical Assistance Center on Social Emotional Intervention for Young Children [TACSEI]) as “a model for supporting social competence and preventing challenging behavior in young children” (Fox et al., 2003, p. 49). The Teaching Pyramid reflects a progression, much like the school-age PBS progression, from universal preventive measures, to targeted teaching of social skills, to individualized interventions for children who continue to display challenging behaviors.

Originally presented as a four-level framework, the Teaching Pyramid included a first level, positive relationships, that was described as a foundation for the next three
Figure 2.2. The Teaching Pyramid

From Fox, Dunlap, Hemmeter, Joseph & Strain, 2003

levels of practice: supportive environments, teaching, and individualized interventions (Figure 2.2).

According to Fox et al. (2003) in their original description of the preschool Teaching Pyramid, there are two reasons for considering relationships as a foundation for social emotional development in young children. The first is that children attend to and are more responsive to direction and teaching from caring adults; the second is that “in the context of supportive relationships, children develop positive self-concept, confidence, and a sense of safety that help reduce the occurrence of challenging behavior” (p. 49)

The model was later revised in 2007 by the Center on the Social Emotional
Foundations for Early Learning (CSEFEL) to combine relationships and supportive environments as a single universal primary level of prevention. This current three-tier model of preschool school-wide positive behavior support (Figure 2.3) continues to emphasize the importance of relationships and is also more consistent with the school-age model in terms of offering primary, secondary, and tertiary levels of support.

*Figure 2.3. Preschool Positive Behavior Support Pyramid Model*

From Center on the Social Emotional Foundations for Early Learning [CSEFEL], 2007
In an article about implementing preschool PBS, Fox and Little (2001) highlighted the close relationship between school-age and preschool PBS models, and also drew some distinctions based on the developmental needs of younger children. For example, both models are based on key features of PBS, including “defining (and) teaching behavioral expectations, acknowledging appropriate behaviors (and) proactively correcting behavioral errors” (p. 252); however, the opportunities used to teach behavioral expectations to young children are often more situational than is typical at school-age. Young children are less able to generalize rules taught in structured lessons to new contexts and so benefit from “activity-embedded social guidance” (p. 252). This means that modeling and coaching occur ‘in the moment’ for younger children and that teachers are more conscious of drawing children’s attention back to concrete examples – visuals such as posters depicting classroom rules and role-play activities with puppets.

In other aspects, preschool PBS mirrors school-wide PBS, including the use of direct instruction and more adult support for children who appear to be more at risk, and individualized functional behavior assessment and behavior support planning for those children who do not respond at levels one and two, and continue to display significant challenging behavior. At this level – the ‘top of the pyramid’, preschool PBS is designed to work closely the family members as participants on the behavior team (Harrower, Fox, Dunlap, & Kincaid, 2000), an element that is important but that may be less frequently emphasized at school-age.

Overall, both preschool and school-age PBS share a set of characteristics based on very similar theoretical frameworks taken from applied behavior analysis and person-centered planning. In addition, descriptions of preschool PBS are clear in stating its relationship to the more well-known school-age model (Fox & Little, 2001; Technical
Both school-age and preschool models also share a set of common characteristics that indicate quality and effectiveness.

**Characteristics of Effective Positive Behavioral Support Models**

Carr et al. (2002) have written that “one of the central messages of PBS is that, in providing support, we should focus our efforts on fixing problem contexts, not problem behavior (p. 8). With this in mind, the quality of school-wide PBS programs at both school-age and preschool depend on the actions taken by adults, especially the teaching staff and administrative staff, in order to create sustainable supportive environments. Based on features of effective positive behavior support described in the literature (Carr et al., 2002; Fox & Little, 2001; Horner et al., 2005; Liauspin, 2004), three essential characteristics typify successful programs: emphasis on prevention, leadership and shared vision, and data-based evaluation.

The first characteristic is emphasis on prevention (Carr et al., 2002). As a fundamental shift in understanding behavior as functional and communicative, based on lessons learned through years of applied behavior analysis research, each tier of the three-tier model incorporates both “prevention” and “intervention”. Thinking about problem behavior in terms of prevention and positive procedures, including explicitly teaching and reinforcing prosocial behavior, is a framework that runs counter to more traditional punitive behavioral models (Carr et al., 2005). As reported by Scott et al. (2005) in their work with teachers, even when new positive behavioral support procedures are introduced, there is a tendency to fall back on more familiar punitive measures. The effective use of PBS requires that staff and students are aware of program expectations for positive behavior, and that those expectations are actively taught using examples and
behavior monitoring that is preventive and positive.

A second essential characteristic is leadership and shared vision based on the collaborative efforts of teachers and school administrators. This requires adequate training and resources for staff to understand PBS as a theoretical approach and to systematically implement the specific assessment protocols, preventive measures, and teaching strategies that comprise PBS methodology (CSEFEL; Horner et al., 2005; Liauspin et al., 2004).

Another essential characteristic is data-based evaluation. The effectiveness of PBS is measured in terms of student outcomes. For a school, this most often means aggregate measures such as disciplinary referrals, suspensions, and student achievement (Liauspin et al., 2004). For an individual child who is receiving individualized support at the Tier-Three level, this means tracking two kinds of targeted behaviors, both the occurrence of challenging behaviors and the occurrence of prosocial replacement behaviors. It also may mean tracking teachers’ level of implementation (Duda et al., 2004; Scott et al, 2005) and teacher ratings of PBS procedures (Stormont et al., 2005). Data should be shared with stakeholders in order to guide decisions as varied as, does the school calendar need to reflect more planning time; do teachers need more training in social skills instruction; or does this child need more opportunities to practice social skills on the playground with a peer-buddy (Horner et al., 2005)?

As a multi-level system-wide model, PBS requires attention at all levels in order to remain supportable and sustainable (CSEFEL; Liauspin et al., 2004). For individual children who require intensive individualized intervention, data collection, data sharing, and decision-making are carried out through the use of two essential applied behavior analysis procedures that have become part of the PBS process, functional behavior
assessment and behavior support planning. These will be described in the next two sections.

*Functional Behavior Assessment (FBA)*

As briefly outlined in an earlier section, a functional behavior assessment results in five essential outcomes: 1) a clear description of the problem behaviors; 2) identification of events, times and situations that predict when the behavior will and will not occur; 3) identification of the consequences that maintain the behavior and what function the behavior appears to serve for the individual; and 4) development of summary statements or hypotheses that describe the behaviors of concern, the conditions under which behavior occurs, and the outcomes that reinforce and maintain the behavior; and 5) the collection of direct observation data that support the summary statements or hypotheses (O’Neill et al., 1997). The first four outcomes will be discussed in more detail here, followed by a description of the functional behavior assessment process that will shed light on the data collection (outcome 5).

*Functional Behavior Assessment Outcomes*

Positive Behavioral Support (PBS) is an assessment-based approach to developing effective individualized interventions to address problem behaviors. PBS draws from two theoretical frameworks: applied behavior analysis and person-centered planning. Applied behavior analysis (ABA), with its emphasis on behavior and its relationship with the environment, has contributed systematic analysis to both prevent problem behaviors and intervene when they do occur. In particular, an ABA tool known as functional behavior assessment (FBA) uses multiple sources to describe problem behavior in terms of function and environmental factors. Person-centered planning is concerned with identifying behavior supports that are practical, relevant, and valued by
the individual and those who are expected to carry out interventions. It emphasizes the role of stakeholders, such as family members and teachers, during assessment, planning, and intervention.

1) Identifying behaviors of concern. A functional behavior assessment describes the behaviors of concern, including determining clear labels for each behavior, and describing the topography of the behaviors, based on specific actions that make up the behavior, and a description of the frequency, duration, and intensity of the behavior. As an example, a behavior of concern might be labeled “tantrum”; its topography might consist of laying on the floor, kicking, and head banging; its frequency, duration, and intensity might be twice a day for 15 minutes at a high level of intensity. Also important is listing not only the behaviors of highest concern, but all behaviors that are considered problematic. The interviewer listens for which behaviors occur together, such as kicking and head banging during a tantrum.

2) Identifying setting events and antecedents. There are two categories of events that precede behavior and which may be functionally related: distant setting events and immediate antecedent events. Setting events are those events that are not directly related to the behavior but which make it more likely that the challenging behavior will occur, such as changing levels of medication, sleep difficulties, or changes in routine and schedule (for example, a parent being away). Immediate antecedent events might include specific requests and activities (a request to put away a preferred activity, for example), locations (hallways, block area in a preschool class), time of day (just before lunch, for example), or specific individuals (more likely to engage in challenging behavior when request is made by mother, for example).
3) Identifying maintaining consequences and functions of behavior. Describing what happens after a behavior occurs provides information about what function the behavior may serve for the individual. For example, if throwing toys at clean up time results in a child being removed from clean up activities, and the function of the behavior for the child is to avoid/escape cleaning up, the behavior has “worked” and the child will be more likely to throw toys the next time. In this example, the child has been successful in avoiding the task and so the consequence of removal from the work area serves to maintain the child’s challenging behavior.

O’Neill et al. (1997) listed two basic function categories: obtain and escape/avoid. According to O’Neill’s model (Figure 2.4), individuals seek to either obtain positive reinforcement or escape negative reinforcement. An individual may get/obtain sensory stimulation such as oral stimulation from mouthing objects, social input from gaining the teacher’s attention, or a tangible object/activity such as a toy. An individual may also seek to escape/avoid sensory stimulation by refusing to touch finger paint, social input by hiding under a table, or an object/activity by throwing an object at work time. Other models of behavior function and maintaining consequences list variations of this basic scheme. For example, the Motivation Assessment Scale by Durand and Crimmins (1992) is a functional behavior assessment tool that lists four function categories for behavior: tangible, attention, sensory, and escape.

4) Developing a summary statement/hypothesis. According to O’Neill et al. (1997), summary statements include a description of the situation including setting events and immediate antecedents, the behaviors of concern, and the reinforcing consequences and function of the behavior. In the example of the child throwing toys at clean up, a summary statement/hypothesis might state the following:
When Child A is asked to clean up toys, he throws toys in order to escape cleaning up. As a consequence, teachers remove him from the clean up area and send him to the Book Area. This is more likely to happen when Child A is in the Block Area.

As noted by Crone and Horner (2003), a hypothesis must be specific enough to be testable by manipulating antecedent variables, in this example, teacher attention and clean up location, and by removing maintaining consequences, in this example allowing the child to avoid clean up by moving to a preferred play area. The testable hypothesis becomes the basis for an individualized behavior support plan addresses the following:
selecting environmental changes that remove antecedent triggers; specifying which new replacement behaviors to teach; and describing new teacher responses that will serve to reinforce new behaviors while not reinforcing the challenging behavior.

Also included in the summary statement may be a statement about competing pathways (O’Neill et al., 1997). The competing pathway can serve as a bridge between the FBA and behavior support plan by suggesting a replacement behavior that can take the place of and is incompatible with the challenging behavior. It is a behavior that is either already available to the individual or is one that may be easily substituted. For example, the child throwing blocks may substitute asking a teacher to clean up in a preferred area or asking for a helper to clean up. Sugai et al. (2000) distinguished between a “desired” replacement behavior and an “acceptable alternative” replacement behavior (p. 155). Once again, in the example, the desired behavior may be to clean up “just like everybody else”; the acceptable behavior may be to clean up with a helper or in a preferred area, or simply stating, “I don’t want to clean up”. While not a final goal, the team may determine that this is an acceptable intermediate behavior that is more appropriate than throwing.

*Functional Behavior Assessment Procedures*

In order to meet the first four functional outcomes of functional behavior assessment, FBA procedures are implemented, including team formation, data collection to generate hypotheses, hypotheses building, and testing the accuracy of the behavior hypotheses through functional behavior analysis data collection – the fifth outcome.

*Team formation.* Functional behavior assessment is conducted by a team comprised of people with direct experience with the child. These stakeholders are typically the people who spend time with the child, who have behavioral concerns, and
who will continue to be with the child as the behavior support plan is implemented. Often this means teachers and family members. In addition, the team includes a member who has behavioral expertise, such as a school psychologist or special educator, and may include administrative personnel who are able to make decisions regarding resources and supports (Sugai et al., 2000). As a person-centered process, when effectively carried out the FBA respects input of team members, reflects the values and organizational structures of the school and family, and may include input from the individual with behavioral needs.

_Data collection._ There are three essential ways of collecting information when conducting an FBA including review of the records and interview, direct observation, and functional analysis, achieved through manipulation of variables to determine possible relationships between environmental variables and behavior (O’Neill, et al., 1997). Typically, two kinds of informants participate in interviews, those who have direct knowledge of behavior, such as teachers and family members, and the individuals themselves, who are interviewed when their willingness and skill levels make participation possible.

_Functional behavior assessment and behavior analysis (outcome five)._ Sugai et al. (2000) have suggested a flow chart (Figure 2.5) to illustrate the procedural steps included in functional behavior assessment, starting with determination to conduct an FBA and drawing a distinction between two levels of functional behavior assessment. At the preliminary level, an FBA includes review of the record, interview, and direct observation. If there is enough information to write a summary statement/hypothesis with reasonable confidence based on this level of inquiry, then the team moves on to developing an intervention plan known as a behavior support plan.
If there is not reasonably high confidence in the summary statement/hypothesis, then a full functional behavior assessment is conducted. This additional step includes functional behavior analysis; based on the initial summary statements, the team manipulates variables of interest and collects data to confirm whether or not there is a functional relationship between the selected environmental variables and the behavior. In the example, it may mean asking the child to clean up a play-table area rather than the block area, assigning a preferred peer as clean up partner, and/or providing having the child stay in the clean up and offering a preferred activity as soon as clean up is completed. Through observation, data regarding occurrences of throwing, given the new environmental circumstances, is collected in order to confirm or modify the behavior.
hypothesis.

Thus, once functional behavior assessment is complete, including follow-up confirmation of the hypotheses through additional data collection and analysis when the FBA team is not confident about the initial hypotheses, the information gleaned through the FBA process becomes the basis for an intervention plan known as the behavior support plan (BSP).

**Behavior Support Planning (BSP)**

Based on the functional behavior assessment, a behavior support plan is developed that addresses three avenues of behavior change: prevention, teaching, and responding. The behavior support is specific and individualized, and links intervention strategies back to the functional behavior assessment. As such, the behavior support plan is designed to both reduce inappropriate target behaviors and increase appropriate replacement behaviors (Crone & Horner, 2003).

Prevention strategies are those which address the antecedents to behavior by reducing the behavioral triggers, thereby modifying the predictors in order to make the behavior irrelevant and/or inefficient. For example, the child may be given a different kind of task, such as helping a teacher prepare for the next activity, when clean up is called. Additionally, in circumstances when setting events are within the control of the FBA/BSP team, preventive steps may be taken. For example, a child’s nap or meal schedule may be changed if fatigue or hunger appears to be a setting event.

A second part of the behavior plan uses teaching strategies to help the child learn to efficiently use replacement behaviors; in effect, the child learns to take the competing pathway. For example, the child may be taught to ask for a helper at clean up time or ask to clean in a preferred area rather than throwing toys to escape clean up.
A third part of the behavior plan describes new ways others may respond to both the inappropriate behavior and the more desirable competing replacement behavior. For example, the teacher might make clear that the child will need to help clean up before he goes outside with the class and he can clean up with a child helper or a teacher helper. O’Neill et al. (1997) illustrated the basic behavior support plan components in their FBA handbook (See Figure 2.6).

*Figure 2.6. Building a Support Plan: Components*
**PBS and the Role of Teachers**

The use of research-based assessment and behavioral support interventions, including functional behavior assessment and behavior intervention planning, is integral to implementing effective positive behavioral supports for the individual and at the school-wide level. Their use requires that teachers participate in prevention, assessment, teaching, and individualized intervention as collaborative partners and competent interventionists. As indicated by research, some teachers have reported feeling unprepared to carry out these tasks (Hester et al., 2004; Newcomer & Lewis, 2004) and are reported to be inconsistent in implementing positive behavior support strategies, even when provided with training (Duda et al., 2004; Scott et al., 2005). In this third and last major section of the review of the literature, professional development for teachers working with children with challenging behavior will be discussed.

**Supporting Teachers**

As noted earlier, although effective interventions to reduce challenging behavior and to promote social competence have been developed through research in applied behavior analysis and have been promoted through social policy initiatives and legal requirements, these interventions are reported to be difficult to apply in school settings (Gable et al., 2003; Obenchain & Taylor, 2005; Quinn et al., 2001; Strain & Joseph, 2004). Collectively known as positive behavior support, these strategies include assessment and implementation of both classroom-wide and individualized behavior support strategies. Several factors that contribute to obstacles to effective implementation and which point to a need for further support and professional development for teachers have been suggested. These factors are teacher qualities, including attitudes and qualifications; pragmatic issues related to school organization and roles; and professional
development needs. Each will be discussed here.

Teacher Qualities

Teachers bear much of the responsibility for handling challenging behavior on a day to day basis in the classroom. The task is complex and requires knowledge of a theoretical framework that views behavior in a developmental and functional context; it requires knowledge of specific intervention strategies that promote prosocial behavior and lessen inappropriate behavior, and it requires knowledge of individual student needs (Gable et al., 2003; Quinn et al., 2001). Teacher attitudes and beliefs, experience, and educational background and training have an impact on how teachers view behavior and how well prepared they are to address challenging behavior.

Attitudes and Beliefs

Because teachers play a crucial role in managing their classrooms in ways that can contribute to prevention of challenging behaviors, and because they play a key role in carrying out interventions for those children who require individualized supports due to social emotional and behavioral needs, teacher attitudes and beliefs towards children and intervention are important. There are at least three areas of special interest: 1) teachers’ attitudes towards working with children with special needs including behavioral needs; 2) teachers’ relationships with and sensitivity towards children; and 3) teachers’ receptivity to new teaching practices.

Attitudes towards research-based interventions. In a study examining special education teachers’ views of research-based practices (Boardman, Arguelles, Vaughn, Hughes, & Klingner, 2005), researchers found that teachers often reported feeling less inclined to implement new research-based programs because of the ongoing demands on their time and attention presented throughout the classroom day. This was particularly
true of teachers working with children with emotional behavior disorders. Time, lack of access to materials, classroom responsibilities, and the unique needs of students all contributed to less commitment to trying new ideas. Teachers also reported that the training they received did not fully prepare them to implement new research-based interventions and that they were skeptical of the applicability of research findings to their students and classrooms. In questioning whether or not research findings have adequate validity, one teacher reflected a general skepticism by commenting, “You can make research basically show whatever you want to” (p. 176).

In his comments on evidence-based models and Head Start, Weikart (2004) reported that teachers are often more belief-based than research-based in their practices, commenting that “early childhood education, like education in general, has always been a field based on belief systems, not evidence-based educational approaches” (p.155). Belief-based practices may reflect the experiences of individual teachers, community beliefs about child development and child rearing, or partially understood theory and research. For example, teachers may continue to rely on more familiar disciplinary measures, even when presented with effective research-based alternatives (Scott et al., 2005), or may develop teaching plans based on untested theoretical descriptions of how children learn (Willingham, 2004). Weikart suggested that these attitudes may have been more reasonable when there was less evidence about effective educational practices; however, given the growing body of research in education, health, neurology, and related disciplines and the interest in research-based methods and student outcomes, Weikart suggested that educators should adapt to using evidence-based models.

Other research has indicated that even when presented with research-based strategies and when given professional development support, teachers may choose to use
more familiar belief-based strategies, or to inconsistently implement research-based strategies. In their 2005 study of teachers’ selection of behavior strategies while participating in a functional behavior assessment, Scott et al. found that teachers were more likely to choose the more familiar punitive and exclusionary strategies, even when they were less functional and effective. This tendency was maintained despite the presentation of effective, functional, research-based strategies by behavior experts. The authors of this study concluded, “It is discouraging to report that intervention teams in this study did not appear to use information regarding the function of undesired student behavior in developing intervention plans” (p. 213). They suggested that teachers appear to be at the early acquisition stage of applying function-based positive behavioral supports, and that training and ongoing support is needed.

In addition to familiarity as a factor, the findings from another study suggested that some research-based strategies may be favored simply because they are easier to implement. Duda et al. (2004) worked closely with a preschool program to implement behavior plans for two children. They found that classroom staff members consistently implemented structural and environmental modifications, such as a change in student seating, but less reliably implemented strategies calling for changes in teacher behavior, such as altering teacher language during verbal interactions. The fact that both kinds of strategies were rated by teachers as feasible and appropriate during planning did not ensure that both would be carried out with the same consistency. Gable et al. (2003) have suggested that teachers prefer interventions they perceive as “time-efficient” (p. 77). It will be important to learn more about differential implementation if PBS is to be fully implemented by school personnel.
Attitudes towards working with children with special needs. Studies regarding inclusion have often examined teacher attitudes and have indicated that while general educators were, for the most part, neutral or positive about the concept of inclusion; they felt unprepared to carry it out in practice (Buell, Hallam, Gamel-McCormick, & Scheer, 1999; Cheney & Barringer, 1995; Snyder, 1999; Taylor, Smiley, & Ramasamy, 2001 Leyser & Tappendorf, 2001; Schumm & Vaughn, 1992; Scruggs & Mastropieri, 1996). In addition, several factors emerged from these studies, including general education teachers’ concerns regarding their own lack of preparedness and limited sense of self-efficacy (Buell, Hallam, Gamel-McCormick, & Scheer, 1999; Snyder, 1999), the need for administrative and special educator support (Burstein, Sears, Wilcoxen, Cabello & Spagna, 2004; Snyder 1999), the need for professional development (Buell, Hallam, Gamel-McCormick & Scheer, 1999; Cheney & Barringer, 1995; Snyder, 1999), and concerns regarding the appropriateness of general education placement for students with more significant needs including those with emotional behavioral disorders and multiple needs (Cheney & Barringer, 1995; Conte, 1994; Taylor, Smiley, & Ramasamy, 2001).

Attitudes towards children: teacher relationships and sensitivity. Another aspect considered under the heading of teacher attitudes and beliefs is the ability to form warm and sensitive relationships with children. In a study examining the relationship of kindergarten classroom environment, school, teacher, and family characteristics, and child outcomes, Pianta et al. (2002) reported that a warm classroom climate and positive teacher-child interactions were positively associated with social and academic gains. Results from this study described two central classroom dimensions: an emotional child-centered dimension and an instructional dimension. Classroom settings that were rated high on the emotional dimension were characterized by positive language between adults
and children, and an absence of negativity between peers, and between adults and children. Classroom settings that were highly rated along the instructional dimension were characterized by more frequent adult-child interactions regarding learning material and more adult corrective feedback that improved performance. The presence of positive teacher-child interactions was also found to be significant in a 2002 study by Rimm-Kaufman examining teacher sensitivity and child behavior in kindergarten. These researchers reported that socially bold children exhibited more self-regulated and on-task behavior when they had sensitive and responsive teachers, as indicated by taking an active interest in children’s activities through commenting and positive redirecting.

*Teacher receptivity to adopting new teaching practices.* In a three-year qualitative case study, Brownell et al. (2005) reported that teachers varied in their ability to adopt new instructional practices and that differences were associated with knowledge level, classroom management style, student centered instruction, and self-reflection. High adopters were teachers who incorporated new practices into their classrooms quickly. Moderate adopters were reported to incorporate some new practices but not others. Low adopters incorporated very few new practices, and were reported to refuse to implement some aspects of a new curriculum, despite support.

The authors of the study were interested to learn more about the role teacher qualities play in teachers’ acquisition and use of new practices. Characteristics of high adopters included knowledge about curriculum and pedagogy, “student-friendly beliefs” about behavior management (p. 177), student-focused instruction, and the ability to reflect on student learning. These teachers gave precise answers to questions about their instructional choices and made positive statements about students. Moderate adopters were reported to believe strongly in academic engagement, but were less aware of
classroom behavior needs and tended to be more teacher-centered than the high adopters. Low adopters were reported to be more rigid in their beliefs and less willing to modify their practices, unless changes were easily implemented and conformed to previously held views. These authors suggested that professional development support offer differential levels of assistance to teachers.

Teacher Qualifications

Much attention has been given to teacher credentials in the past few years, in particular with the advent of No Child Left Behind (2001), the federal education legislation which called for, among other things “high quality teachers”. While “quality” is often spoken of in terms of level of education and credentials attained, the relationship between degrees, years of teaching experience, classroom quality, and student outcomes is not straightforward.

Pianta et al. (2005) summarized some of the earlier findings related to early childhood teacher qualifications, noting that teachers with four year degrees, particularly those with degrees in early childhood, provided higher quality learning experiences than did those teachers with less education or education unrelated to early childhood. In the 2005 study, Pianta and his fellow researchers examined 238 classrooms in a six state sample, and concluded that “individually and collectively program and teacher attributes are statistically significant. In examining classroom quality in terms of a set of predictors rather than a single predictor, the researchers found that when the classroom was composed of a majority of children below the poverty line, and teachers did not have BA-level training in early childhood, and teachers expressed more traditional beliefs about children in which child–adult interactions are understood from an adult-centered perspective, quality was lower. These researchers reported that teacher factors such as
experience, education, and attitudes has some effect on classroom quality, though noting
that the effects were typically modest, accounting for 8-17% of the variance in global
classroom quality (p. 156).

Other researchers have reported a more direct relationship between teacher
education and quality in early childhood. A National Institute for Early Childhood
Education (NIEER) brief on preschools and teacher qualifications (Barnett, 2004),
reported that results from several studies examining quality and qualifications at state-
funded preschools concluded that quality was enhanced when teacher had four-year
degrees. The NIEER research summary brief also reported that children from families
with low income have less access to high quality teachers and programs, and those
teachers who have four year degrees were more likely to interact positively with children
and showed more warmth and enthusiasm for children’s activities.

Level of education and credentialing are of special concern for early childhood
teachers for whom employment standards vary widely from state to state and run the
gamut of high school degree to college degree (National Center for Early Development &
Learning, 2002; Saracho & Spodek, 2007). As noted in a 2005 Economic Policy Institute
study about workforce qualifications in early childhood,

- The share of U.S. center-based teachers and administrators with at least a four-
  year college degree averaged 43% from 1983 to 1985, but only 30% in the last
  three years.

- Conversely, the share of ECE teachers and administrators with a high school
  education or less climbed from less than 25% in 1983 and 1984 to around 30% in
  recent years.

- The education levels of ECE teachers have fallen even further relative to the
workforce as a whole, which has become better educated over time. (p. 1).
Because the association between teacher qualities, teacher qualifications, and classroom quality is complex, and because insufficient preservice training is a concern in particular at the early childhood level, inservice support offered by schools is important. This is especially the case for programs providing early childhood education to children of low income families, who are more likely to display challenging behavior that interferes with learning and who are less likely to have teachers with four-year degrees and specialized training. With that in mind, school structures that support teachers and offer inservice professional development must address several issues in implementing and sustaining effective programs for young children with challenging behavior.

School Organization and Positive Behavior Supports

Issues related to successfully carrying out positive behavior supports in the schools can be summarized under two broad needs: 1) the need for schools to create support systems that foster and sustain a school-wide vision of PBS; and 2) the need to support teachers and other education staff to develop the specific skills needed to effectively carry out PBS in the classroom. At both school-wide and classroom levels, strategies to foster PBS must take into account the “culture” of the school organization, including its goals, roles and relationships, communication and decision-making systems, and resources. These local factors make a difference in how PBS may be effectively implemented and how teachers may be supported in ways that are effective and sustainable.
Building a School-Wide Vision

First, as a team-centered, systems-wide approach, positive behavior support requires the development of within-school teams in order to carry out programming. In contrast to external expert models, positive behavior support is a problem-solving approach which seeks to transfer the “ownership” of assessment, planning, and implementation to the people who work most directly with children (Quinn et al., 2001, p. 265). Teachers and providers need to have the time to participate in both training and guided experiences, not only to develop high level assessment and intervention skills, but to understand teaming and collaboration. In their discussion of applying positive behavior support in the schools, Carr et al. (2002) observed that didactic instruction aimed at training teachers to “master a laundry list of specific intervention techniques” (p. 13) is insufficient. Rather, teaching and administrative staff need to participate in “dynamic” training that includes skills practice and school community building, understanding of local administrative systems and resources, and a focus on collaboration and multi-disciplinary supports (Dunlap et al., 2000). This requires an examination of school structures in terms of opportunities and barriers for training, ongoing support, collaboration and teaming, and program assessment.

Supporting the Development of PBS Skills for Teachers

Because of the complex nature of behavior and the comprehensive approach of functional behavior assessment and behavior planning and implementation, it is important for practitioners to be knowledgeable in terms of both the PBS theoretical framework and the specific content related to strategies. It is up to schools to determine who on staff will conduct in-depth individualized assessment and carry out systematic intervention. For individual students with needs, historically this role may have been
filled by behavior “experts” such as a school psychologist or outside evaluator (Gable et al., 2003). That model, however, is less effective when the demand for positive behavior support increases and the emphasis shifts to sustained behavior change and stakeholder participation in more natural settings (Carr, et al., 2002). Support and training by experts has been reported in the literature to be helpful to teams at the classroom level but this does not assure that classroom teachers come away from training and teaming experiences with the skills that would allow them to sustain positive behavior support activities or initiate new activities on their own (Clark & Stroud, 2002; Newcomer & Lewis, 2004; Powell, Dunlap, & Fox, 2006; Schepis et al., 2000).

PBS requires that real-world practitioners – the child’s teachers and family - support positive behavior in systematic ways utilizing research-based interventions. Bringing PBS into the schools requires closing the “research-to-practice gap” (Quinn et al., 2001, p. 265). Closing the gap becomes especially important when considering the scale of school-wide PBS efforts suggested by research and federal requirements. As noted by Dunlap et al. (2000), whether or not teachers and schools feel prepared, “the concepts and procedures of positive behavior support are being increasingly incorporated into the expected daily practice of educators and other professionals” (p. 23).

This means that rather than having a few experts nested within a school setting comprised of staff with novice-level understanding, effective implementation of PBS requires that school personnel broadly develop expertise. Dunlap et al. (2000) listed the following essential content areas for schools to include in their training efforts:

1. Establishing a collective vision and goals for intervention;
2. Collaborating and building teams among families and professionals;
3. Conducting functional assessment;
4. Designing hypothesis-driven, multicomponent support plans;

5. Implementing intervention strategies that include environmental adjustments;
   replacement skills, appropriate consequences, and lifestyle enhancements;

6. Monitoring and evaluating intervention outcomes;

7. Infusing positive behavior support into broader systems. (p. 23)

Given the training needs associated with effective implementation of positive
behavior support, researchers have made several suggestions about how to address
professional development in order to assist teachers and schools in building capacity
(Carr et al., 2002; Dunlap et al., 2000; Gable et al., 2003; Hester et al., 2004). Supports
for teachers will be discussed next.

Positive Behavior Support and Professional Development for Teachers

Three factors are important to consider when discussing PBS and professional
development support. First, research and field experience in professional development
has led to several recommendations for effective teacher supports, including an emphasis
on active participation during training and follow-up that includes repeated opportunities
to practice and talk about newly acquired skills. Second, the special requirements of
positive behavior support as a systems-change approach and as a set of research-based
assessment and intervention techniques call on teachers to be fully engaged as committed
stakeholders and competent practitioners. Third, these two highly related features of
research-based recommended practices in professional development for teachers and
behavioral supports for children become especially salient in the early childhood setting.
It is there that teachers who typically have received less preservice training are expected
to carry out effective behavior supports for children with minimal support for themselves.
These three factors are addressed here.
Recommended Practices in Professional Development

More than 20 years ago Showers, Joyce, and Bennett summarized 30 years of research and classroom experiences and synthesized several consistent findings related to professional development for teachers (1987). Some of the findings related to teacher characteristics, including the idea that competent and confident teachers were more likely to benefit from professional development than their less competent and less confident colleagues, and that teachers described as flexible were more likely to incorporate new methods into their teaching repertoires. Other findings related to characteristics of training, including the finding that teachers were likely to get more out of initial training when they had at least a basic level of knowledge of the subject matter, and were more likely to acquire and maintain new skills when they received on-site follow-up support.

In other words, more than 50 years ago it was understood that individuals generally vary in their receptivity to training experiences, and that training generally requires follow-up and ongoing opportunities to use new skills in order to be effective. Many other studies have occurred since the 1987 research synthesis was written and have validated these earlier conclusions and have added to a depth of understanding of how to support teachers in improving their skills. One particular contribution is from Guskey, who has proposed a model of how teachers change through professional development (Figure 2.7). Keeping in mind the three goals of professional development: change in teachers’ classroom practices, change in teachers’ attitudes and beliefs, and change in student outcomes, Guskey has proposed that teachers are more likely to change their beliefs about teaching and learning only after they see changes in students as a result of
new teaching practices. Therefore, if teachers are to change their attitudes and beliefs through professional development, it is essential for professional development to provide teachers with direct experience by linking new interventions and student outcomes.

In other words, if new methods result in positive outcomes for students, teachers are more likely to maintain their use. According to Guskey, it is not professional development, per se, that effects changes in attitudes and beliefs, but teachers’ experiences in their own classrooms with their own students (2002). Showers, Joyce, and Bennett put this more succinctly in stating that researchers found that “commitment follows competence rather than preceding it” (1987, p. 82).

This understanding of how professional development works has implications for schools implementing the positive behavior support model, especially in light of teachers’ reported need for support that is applicable to their classrooms and is practical and efficient (Dunlap et al., 2000; Snyder & Wolfe, 2008). Because positive behavior support assessment and intervention are both closely tied to student behavior and inherently concerned with ecological validity, the student in the classroom and the team’s actions
are central to professional development support efforts in PBS. This focus stands in contrast to remarks by Sparks (as cited in Snyder & Wolfe, 2008), who observed that professional development studies, reports, and articles yield “only marginal improvement in the quality of professional development… (which is)… pretty much as it has always been – unfocused, insufficient, and irrelevant to the day-to-day problems faced by front-line educators” (p. 16).

**Professional Development Models and Positive Behavior Support**

Dunlap et al. (2000) have described five key features of a recommended inservice training model to assist teachers in implementing positive behavior supports. Developed by the Rehabilitation Research and Training Center on Positive Behavior Support, the model uses expert teams to help localities develop sustainable capacity through working together over several months to build competence in assessment, problem-solving, and intervention. The five key features are: 1) the training targets a multidisciplinary audience; 2) the training uses case study format so that participants can apply what they are learning; 3) the training incorporates a dynamic training process that emphasizes practical activities and generalizable skills; 4) the training is comprehensive; and 5) the training promotes community building in order to enhance ongoing support once the initial training phase is complete (p. 26).

Other PBS training models also emphasize community building, active participation, relevant case studies, teacher competence, and transfer of capacity from the experts to the stakeholders, notably the Center on the Social Emotional Foundations of Early Learning’s (CSEFEL) positive behavior support’s training modules for preschool programs. Implementing PBS using the CSEFEL model calls for the formation of a local “leadership team” composed of teachers, administrators, and parent representatives. This
team determines how to promote and apply PBS within the local program, such that when
the training phase has ended, there are structures within the organization that can
continue to support PBS in the classrooms and agency-wide (CSEFEL, 2008; Smith,
2008).

Application of PBS in Early Childhood Settings

There has been limited research examining PBS and teacher supports in early
childhood settings. As a relatively new application of positive behavior support, PBS for
preschoolers has been encouraged by centers such as the Center on the Social Emotional
Foundations for Early Learning (CSEFEL) and the Technical Assistance Center on Social
Emotional Intervention for Young Children (TACSEI). In their article describing PBS
and two preschool programs Fox and Little (2001) noted several differences between
applying PBS at school-age and in the early childhood community. These program
implementation differences were based on developmental differences in children’s ability
to construct knowledge of social rules and evaluate behavior. In terms of supports for
teachers and changes in teaching behaviors, Fox and Little noted that the teachers in their
program already had a repertoire of skills aimed at fostering proactive social skills. At the
same time they were less familiar with individualized supports for children with
significant behaviors, as these children were typically asked to leave the program in order
to have their needs met in more specialized placements. In general, Fox and Little
reported that the presence of trained university personnel had a positive effect on
implementation and teaming over three years.

Duda at al. (2004) also reported on the introduction of PBS at a community
preschool. Rather than emphasizing classroom-wide preventive and social skills supports
for children, this study focused on individualized intervention (“the top of the pyramid”)

106
for two three-year-olds with problem behaviors. As noted earlier, Duda and her colleagues found that teachers were more likely to implement preventive changes recommended in the behavior support plan, including changes in seating arrangement and scheduling, but were less likely to alter consequences by delivering verbal praise when children engaged in more desirable replacement behaviors. Despite differences in levels of implementation for structural strategies and verbal praise strategies, there were no significant differences in teacher approval ratings. All strategies were considered by teachers to be “effective, comfortable to use, and developmentally appropriate” (p. 149). The authors indicated that teacher fidelity is an area that requires further study.

Duda and her colleagues have proposed four questions related to teacher fidelity. First, to what extent would behavior have changes been seen for the two children had teachers implemented all aspects of the behavior plans with fidelity? Second, what factors account for the teachers’ failure to fully implement all of the behavior plan strategies? Third, were all components written into the plan necessary to see behavior change at an acceptable level? In this case, the two children’s behavior noticeably improved with partial implementation. Finally, are there important differences between the two types of strategies, such that the low implementation strategies required more expertise and clinical judgment about when and how to apply the strategies?

It may be that teachers are more likely to deliver those behavior support strategies that are more familiar or that depend less on newly acquired skills, regardless of stated comfort level. As discussed earlier, in a school-age study examining which strategies were selected by school personnel during development of a behavior support plan, Scott et al. (2005), reported that teachers chose strategies that were familiar over more functionally-based and effective strategies that were less familiar. Another factor may be
level of education and classroom role for classroom staff. In a study of teachers’ ratings of various behavior strategies, Stormont, Lewis, and Smith (2005) reported that paraprofessionals in support roles were more likely to rate strategies as less feasible. These authors recommended that programs consider offering more professional development for support staff in order to ensure full implementation of PBS. This is certainly a key factor to effective implementation, given that paraprofessionals play an important role in the early childhood classroom, and that consistent responses to both target problem behaviors and prosocial replacement behaviors are important to successful behavior change.

**Positive Behavior Support and Professional Development for Teachers Summary**

As noted above, professional development for teachers working with children with behavioral needs is important at school age and at the preschool level. For a variety of reasons, there are concerns regarding feasibility, teacher fidelity, training, and ongoing support for teachers. In particular, the handful of studies examining positive behavior support for young children leads to several questions regarding implementation of PBS and necessary supports for early childhood classroom staff, which often have less training and fewer resources. For all teachers, formulating professional development and supports for teachers that are efficient, feasible, and valued will be important if full implementation of positive behavior support is to take place.

**Statement of the Problem**

Research and experiences in the field have demonstrated that young children who present with challenging behaviors are more likely to be at risk for long term negative outcomes, including emotional behavior disorder, school failure, and difficulties with relationships and community life (Campbell & Ewing, 1990; Campbell, 1995; Kaiser,
Cai, Hancock, & Foster, 2002; Shonkoff & Phillips, 2000; National Institute of Mental Health, 2000; U.S. Department of Health and Human Services, 1999; Webster-Stratton & Hammond, 1998). These are serious risks with consequences for the individual, the family, the community, and society as a whole. As such, efforts have been made to develop early identification and intervention procedures that can serve to address the needs of young children at risk for developing social emotional and behavioral disorders that may interfere with learning and school readiness (Kendziora, 2004; Shonkoff & Philips, 2000).

Recently much attention has been given to a set of evidence-based prevention and intervention strategies designed to address these needs. Known collectively as positive behavior support (PBS) these strategies are based on work in applied behavior analysis (Baer et al., 1968; Bambara, 2005; Lewis et al., 2004) and are considered effective in helping children to improve their behavior (Center on the Social Emotional Foundations of Early Learning [CSEFEL]; Hemmeter & Fox, 2008; Technical Assistance Center on Social Emotional Intervention for Young Children [TACSEI], 2008).

While the need is clear and effective strategies promoting social competence and addressing challenging behavior have been described in the literature and are promoted by federal legislation (Individuals with Disabilities Education Improvement Act of 2004), the early childhood community (National Association for the Education for Young Children, 1995), the US Department Health and Human Services (Huffman, Mehlinger & Kerivan, 2001), and the US Department of Education (Technical Assistance Center on Positive Behavioral Supports and Intervention, OSEP, 2008), carrying out those strategies poses challenges to early childhood programs. This is because implementing effective classroom-wide and individualized positive behavior support strategies is
complex and time-consuming, requiring a level of expertise that is not typically part of the background and training of early childhood classroom staff (Gable et al, 2003; Scott et al., 2005). Challenges include identified teacher deficits in the attitudes and skills necessary to work effectively with young children with behavioral needs, the limited effectiveness of professional development efforts aimed at changing teacher attitudes and improving skills, and the complexity of effectively and fully implementing well-designed behavior support plans. Despite these challenges, the responsibility and opportunity to prevent and respond to young children’s challenging behavior inevitably rests with early childhood teachers (Hester et al., 2004; Shonkoff & Phillips, 2000).

Purpose of the Study

Although previous research has provided ample documentation of the utility of positive behavioral supports for addressing the unique needs individual children who present with challenging behaviors in a classroom setting and has provided limited documentation of teachers engagement in selective implementation of behavior support plans (Duda et al., 2004; Scott et al., 2005), no studies could be found in the extant literature that specifically assessed factors that might influence the fidelity with which classroom teachers implement a positive behavioral support plan. In particular, Duda et al. (2004) suggested that future research examine the factors that might account for teachers’ failure to fully implement behavioral interventions. Scott et al. (2005) suggested that research focus on training supports that might aid teachers in gaining the skills they need to become fluent in fully implementing behavior support plans.

Accordingly, the purpose of the present study was to examine teacher behaviors when carrying out a functional behavior assessment (FBA) and behavior support plan (BSP) for a preschooler with challenging behaviors. Of special interest was which
behavioral strategies were most readily implemented by teachers, and the extent to which professional development was effective in helping teachers to implement the full range of strategies with greater fidelity.

Research Questions and Propositions

There were four questions of interest, each related to a proposition based on recent research findings that describe concerns about treatment fidelity for teachers carrying out behavior support plans (BSP) (Duda et al., 2004; Gable et al., 2003; Scott, Anderson & Spaulding, 2008; Scott et al, 2005; Stormont, Lewis, & Smith, 2005).

1. Question One: To what degree do teachers implement specific behavioral support strategies that are part of a positive behavioral support plan?
   Proposition One: Teachers are likely to lack fidelity when carrying out behavior support plans in the classroom.

2. Question Two: To what degree are changes in child behavior related to teacher implementation of the behavior support plan?
   Proposition Two: The child’s behavior will improve if the teachers implement the behavior support plan.

3. Question Three: To what degree are changes in teacher behavior related to professional development support?
   Proposition Three: The addition of professional development support will improve teacher fidelity.

4. Question Four: Which behavioral strategies aimed at child behavior are considered by teachers to be important and feasible and which kinds of professional development supports are viewed as helpful by teachers?
   Proposition Four: To the extent that teachers judge behavior support plan
strategies to be feasible and professional development support to be helpful, they will be more likely to carry out BSP strategies.
CHAPTER THREE: METHODOLOGY

This study focused on the behavior and attitudes of early childhood teachers carrying out a Behavior Support Plan (BSP) for a preschooler with challenging behaviors. Using an embedded case study design, the investigator examined the extent to which teachers implemented the BSP, the teachers’ views on the feasibility and value of the behavior change strategies they were asked to carry out, the relationship between teacher behaviors and changes in child behaviors, and to what extent professional development supports for teachers were considered helpful and were associated with higher levels of implementation.

Case Study Design

As this study’s main purpose was to examine the implementation of a child’s behavior support plan, it was determined that the research questions could best be explored in the natural setting of the classroom. The classroom provided a realistic setting that is framed by factors that are both typical and unique, typical in terms of Head Start and early childhood recommended practices in planning, curriculum, and behavior management, and unique in terms of teacher experiences, beliefs, skills, and interaction styles. It was this combination of factors, and the difficulty inherent in isolating and controlling for variables, that led the researcher to selecting a comprehensive description of a single early childhood classroom teaching team using a case study approach.

The following sections will describe setting, participants, research design, procedure, instrumentation, and data analysis.
Setting

The study took place in a rural Head Start center that has been provided with two years of professional development in Positive Behavioral Support (PBS) by the researcher in her capacity as behavior consultant and PBS trainer. The professional development was based on the Center on the Social Emotional Foundations of Early Childhood (CSEFEL, 2008) Positive Behavioral Support program and consisted of six large group face-to-face training sessions, informational handouts and classroom PBS materials, and one PBS classroom observation visit and feedback session.

The Head Start Center

The center is one of the Head Start agency’s four local centers serving three and four year old children from low-income families in 12 classrooms, and is licensed by the New York State Office of Child and Family Services (OCFS) and affiliated with national Head Start through a grantee agency. The classroom chosen for the study was an “inclusion” class that serving sixteen three and four year olds, including children with special needs who have an educational classification of “preschooler with a disability” through the local school district. The classroom session is five hours per day (comprised of two 2.5 hour sessions), five days per week, and includes breakfast, structured large and small group activities, free play, gross motor activities, lunch, and rest time, and activity time. The classroom is staffed by Head Start staff and the special education agency which serves as the Head Start administrative grantee and also provides services to those children with special needs in the Head Start program.

The Role of the Researcher

The researcher was a behavior consultant in the Head Start agency where the research took place and planned to study the phenomenon of behavior plan
implementation as an extension of her regular professional role at Head Start. The researcher has provided two related services to Head Start. First, the researcher/consultant has worked closely with the Head Start agency for three years as a trainer in the Positive Behavior Support (PBS) model developed for early childhood programs by the Center on the Social Emotional Foundations of Early Learning (CSEFEL, 2008). In addition to providing training, the researcher/consultant has conducted functional behavior assessments and written behavior support plans for children with challenging behaviors in Head Start in the past year. In this role, the researcher/behavior consultant has visited classrooms and has worked with teachers during assessment and behavior planning for children in their classrooms. It was determined that familiarity with the agency would allow for more ready access to the classroom, more familiarity with the teaching staff, and would provide for a richer description of events.

*Curriculum*

The center uses the High/Scope curriculum, a commercially available early childhood curriculum and assessment program for children three to five. According to the High/Scope Foundation, “the curriculum is built around teacher- and child-initiated learning activities in five main curriculum content areas: approaches to learning; language, literacy, & communication; social and emotional development; physical development, health, and well-being; and arts and sciences” (High/Scope, ¶ 6). The importance of daily routines, intentional teaching, and active learning is emphasized.

*Staffing*

The classroom was staffed by a Head Start lead teacher, a Head Start assistant teacher, and a Head Start program aide. In addition, services for those children with
special needs were provided by a full time special education teacher and related services providers through the Head Start grantee agency, including a visiting speech language therapist, a visiting occupational therapist, and a visiting school psychologist who provides therapy services to select children according to the stipulations of their Individualized Education Programs (IEPs). These therapists entered the classroom at prearranged intervals throughout the day. In addition, the classroom team included a Head Start family development specialist who serves as a contact person for families. The family development specialist is also commonly referred to a “family worker” or “family advocate”. Teachers rotate out of the room for lunch and break. Coverage at these times is provided by Head Start program aides.

Referral Procedures

At Head Start, when a teacher is concerned about a child’s behavior a referral is made to the Head Start administrative personnel such as the disabilities, mental health, and education managers, who review child records, observe the child, talk with teachers about strategies, and talk with parents about any behavioral concerns at home. If concerns warrant further action, a functional behavior assessment (FBA) is conducted.

There are two common paths leading to further behavior assessment. For children who are referred to the school district for an evaluation, either because a child already has been identified as a preschooler with a disability and has an IEP or because it is the custom of the local Head Start to rely on the districts for in-depth evaluation, the FBA is conducted by an evaluator designated by the child’s local Committee on Preschool Special Education (CPSE), typically a school psychologist or special education teacher. In other cases, a Head Start in-house referral may result in a functional behavior assessment (FBA) and behavior support planning. Currently in these cases, the FBA is
conducted by a Head Start consultant who is also the researcher. The classroom behavior support plan (BSP) is based on the completed FBA and is written either by the CPSE designated evaluator or the Head Start behavior consultant. Whether the behavioral evaluation is conducted by an outside evaluator or Head Start, teachers most often participate as informants during the FBA interview phase, but do not typically write the FBA or BSP. They are, however, responsible for carrying out the BSP.

Participants

The participants in the study were a Head Start classroom teacher, Head Start assistant teacher, Head Start program aide, and the special education teacher assigned to the classroom full time. In addition, the study included the child who was the focus of the functional behavior assessment and behavior support plan and the child’s parents. The classroom team and child were identified by Head Start, based on a classroom referral to the Head Start education manager and the Head Start behavior consultant/researcher due to behavioral concerns.

Teachers

Because all the classroom staff play a role in carrying out a BSP, it was important to include all members of the teaching team in the study. While the head teacher typically has a higher level of training and bears the primary responsibility for the classroom, the support staff play important roles during planning, learning and learning and play activities, transitions, and behavior management, based on proximity and the early childhood field’s emphasis on teaming (NAEYC, 2005; Schepis, Ownbey, Parson, & Reid, 2000; Dinnebeil, Buysse, Rush, & Eggbeer, 2008). Informed consent for the four members of the teaching team participating in the study was secured through a meeting to explain the purpose and nature of the study. This meeting was arranged by the education
manager, disabilities manager, and the behavior consultant/researcher. The meeting included providing staff members with a brief written description of the study’s purpose. The teachers were told that the study would examine their attitudes concerning a child’s behavior support plan (BSP) and the professional development support they received while carrying out the BSP, and would examine their implementation of the BSP. Participant teachers were also told that in addition to carrying out the BSP, they would be asked to participate in weekly review or coaching sessions with the behavior consultant/researcher for six weeks.

Child

The child participant in the study was identified by Head Start as a child in need of a functional behavior assessment and behavior support planning as part of the regular Head Start process to provide more individualized intervention when children present with challenging behaviors in the classroom. At the child-level, the only change in the functional behavior assessment and behavior support planning process was the presence of the behavior consultant/researcher during the implementation of the BSP for observation, monitoring, and coaching purposes in order to collect data on child and teacher behaviors related to implementing the behavior support plan. The child’s participation was secured through written description of the study and a meeting with the parents to explain the purpose of the study and to gain formal consent. The family was told that child-level interventions would only be those that would typically be included for a child enrolled in Head Start for whom a functional behavior assessment and behavior support plan is conducted and implemented.
Embedded Case Study

The emphasis on studying behavior change for a team of teachers in the natural setting of the classroom led to the choice of an embedded case study research design. This approach will be discussed in terms of suitability, benefits, and limitations, followed by a closer description of the elements of the research design including procedures, instrumentation, and data analysis.

The case study approach, as defined by Yin (2003), is “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). As a qualitative research design approach, case study research is based on an in-depth analysis of a single case (and sometimes multiple cases) in order to provide a rich description of a phenomenon that is bounded by its context in ways that make it problematic to separate out the event under study from the unique and complex aspects of its surroundings. As such, case study can be a useful approach when studying events that take place in a classroom where sorting out an array of independent and dependent factors is difficult. Yin has pointed out (perhaps with a touch of hyperbole), that case study research is a methodology that “copes with the technically distinctive situation in which there will be many more variables of interest than data points” (2003, p.13.) Put more straightforwardly by Cresswell in his overview of qualitative research designs, case study was described as a methodology that is useful when exploring a complex phenomenon that does not lend itself to the controls necessary for experimental and quasi-experimental design (Cresswell, 2007). Case study design was selected as suitable for this study in order to allow for a description of some of the complex events that occur when teachers attempt to influence a child’s behavior using a Behavior Support Plan.
In addition, case study research design has been chosen in acknowledgement of the researcher’s role as a behavior consultant to Head Start. These dual roles, observer and participant, can be accounted for in the case study design framework (Hamel, Dufour, & Fortin, 1993; Yin, 1989, 2003). The participant observer role was initially described in ethnographic case study research focusing on different cultural groups (Bahr & Caplow, 1991; Merriam, 1988; Yin, 2003). For the purposes of this study, the researcher/consultant took the role of observer and participant-coach during the behavior plan’s implementation phase as a natural extension of ongoing practices in use at the Head Start agency, as well as a natural extension of the role of the behavioral consultant. According to Merriam (1988) there are four kinds of participant observer roles: 1) the complete participant, in which the observer is a full member of the group and conceals his or her observer role; 2) the participant as observer, in which the observer’s role is known to the group but serves as a secondary role; 3) the observer as participant, in which participation is secondary to observing; and 4) the complete observer, in which the observer is unknown to those who are observed (p. 92-93). For this study, the researcher/consultant took on the roles of participant as observer, in particular during the active initial phase when the behavior plan was being drafted and in the final phase during coaching. The researcher also occupied the more passive observer as participant role, in particular during the pre and post coaching behavior plan implementation when the role as observer took the lead.

In designing and carrying out this case study, it was important to consider several components (Yin, 2003). These components will be described here, followed by a discussion of the methods used to address validity and reliability issues.
The Five Components of a Case Study Design

Five important components of case study research design have been outlined by Yin (2003): 1) the study’s questions; 2) the study’s propositions; 3) units of analysis; 4) the logic linking the data to the propositions; and 5) the criteria for interpreting the findings. Each of these components will be briefly addressed here, especially in light of their contributions to rigor in case study design and their use in this study.

Component one: research questions. The four questions addressed by this study related to how teachers carry out a behavior support plan. As explanatory questions, they were formulated to address not only which strategies were more or less easily implemented by teachers and whether the child’s behavior changed, but also how professional development support in the form of discussion and coaching did or did not support effective implementation of the plan. According to Yin (2003), questions which explore complex change in natural settings can be well suited to case study design research. These questions were based on four research-based propositions related to various types of behavior change in teachers and children. The four questions of interest were: 1) to what degree do teachers implement specific behavioral support strategies that are part of a positive behavioral support plan; 2) to what degree are changes in child behavior related to teacher implementation of the behavior support plan; 3) to what degree are changes in teacher behavior related to professional development support; and 4) which behavioral strategies aimed at child behavior are considered by teachers to be important and feasible and which kinds of professional development supports are viewed as helpful by teachers.

Component two: propositions. The proposition holds a place in qualitative research that parallels the role of the hypothesis in experimental research (Baxter & Jack,
2008; Cresswell; 2007). Indeed, Baxter and Jack (2008) noted that “for those (who may be) more familiar with quantitative approaches to experimental studies, propositions can be equated with hypotheses in that they both make an educated guess to the possible outcomes of the experiment/research study” (p. 552). It is by formulating clear propositions that the researcher can use case study design to examine a phenomenon in a framework that purposefully guides data collection and analysis (Baxter & Jack, 2008; Yin, 2003).

For some kinds of qualitative research, in particular grounded theory research, theoretical propositions emerge through analysis of the data collected during the case study (Cresswell, 2007). Emerging propositions are typical in exploratory case study when the researcher does not begin with enough information about a phenomenon to provide a theoretical or empirically-based framework (Baxter & Jack, 2008; Miles & Huberman, 1994; Yin, 2003). In other instances, the researcher does have enough information to construct propositions when initially planning the case study. According to Baxter and Jack (2008), “propositions may come from the literature, personal/professional experience, theories, and/or generalizations based on empirical data” (p. 551). Yin (2003) has suggested that when it is possible to formulate propositions, they become an important component of case study research design and serve to guide data collections and analysis. This study’s propositions were formulated based on recent research findings that described a lack of treatment fidelity on the part of teachers carrying out behavior plans (Brownell et al., 2006; Duda et al., 2004; Scott et al, 2005; Stormont, Lewis, & Smith, 2005) and on research related to professional development describing effective supports for teachers (Dunlap et al., 2000; Guskey, 2002; Scott, Anderson, & Spaulding, 2008; Snyder & Wolfe, 2008).
Proposition One was that teachers are likely to be inconsistent, to lack fidelity, when carrying out behavior support plans in the classroom. Proposition Two was that the child’s behavior would improve if the teachers implemented all three sections of the behavior plan: prevention, teaching, and responding. Proposition Three was that the addition of professional development support would improve teacher fidelity. Proposition Four was related to teacher attitudes and proposed that to the extent that teachers judged behavior support plan strategies to be feasible, they would be more likely to carry out those strategies. Some research has indicated that strategies which teachers viewed as important were not always considered feasible and practical (Stormont, Lewis, & Smith, 2005). To address this discrepancy, the researcher planned to give the teacher ample opportunities to select preferred strategies.

Component three: units of analysis. A well-designed case study makes clear what is being studied. Determining the units of analysis is not always straightforward but is an essential component to define during design (Yin, 2003). For this case study, the teachers were the units of analysis. Technically, this study was an embedded case study, as the units of analysis – the teachers - were embedded in the case of a behavior support plan being implemented in a Head Start classroom. (See figure 3.1). One major benefit to analysis at this level was that it allowed for comparison between teachers.

Component four: logic linking data to propositions. Next, according to Yin (2003), good case study design calls for linking the data to the propositions. In this embedded case study design, being able to look at four teachers individually allowed for the examination of the data using pattern matching – comparing the predicted pattern based on the propositions with the examples provided by multiple teachers. Such a comparison can contribute a theoretical replication across units of analysis inside the
case study in ways that strengthen internal validity in case study design (Yin, 2003, p. 116-117). This is helpful when not using multiple case studies to strengthen findings.

**Component five: criteria for interpreting findings.** Finally, an important component of good case study design is establishing criteria for interpreting the findings. This component addresses the question of outcome significance in case study research. In experimental and quasi-experimental design, interpreting the findings is based on statistical significance. In case study design, while there may be analysis of quantitative
data in order to yield descriptive statistics (frequency, mean), discussion about significance typically involves analyzing the data in order to relate the findings back to the study’s theoretical propositions. Yin has described this type of analysis as “the first and most preferred” in case study research (Yin, 2003, p. 111). A second strategy that is also considered good practice in case study research is analysis of the findings in terms of rival explanations (Yin, 2003, p. 113). Briefly stated this approach to analysis requires the researcher to ask if there is a reasonable explanation that better accounts for the research findings and that is a better fit for the data than the theoretical propositions. The researcher’s original propositions are weakened or strengthened, depending on whether a reasonable rival explanation does a better job of accounting for the study’s findings. Both of these strategies for analysis were used in this study: linking the findings back to the research-based theoretical propositions, and looking for rival explanations that might better explain the findings.

In order to further address the importance of evaluating the study’s findings, the following section describes the methods that were employed in addressing trustworthiness.

**Trustworthiness in Case Study Design**

Historically, the discussion about trustworthiness in qualitative research has been based on comparison with the standards for validity and reliability set by quantitative research methodology (Cresswell, 2007). Guba (as cited in Lincoln & Guba, 1985) suggested four terms related to validity and reliability that would better fit naturalistic study: credibility (in place of internal validity); transferability (in place of external validity); dependability (in place of reliability), and confirmability (in place of objectivity). Lincoln and Guba (1985) have suggested that qualitative design research
findings are more appropriately described in these terms, allowing the researcher to make statements about research findings with confidence, while not attempting to claim the validity described in more controlled experimental design (Cresswell, 2007; Lincoln & Guba, 1985; Yin, 2003).

There are several strategies that may be employed to address trustworthiness in qualitative research (Creswell, 2007; Lincoln & Guba, 1985). Yin (2003) has suggested several “tactics” (p. 34) that are useful in addressing these issues, including multiple sources of evidence, pattern matching, rival explanations, and generalizing to theory (rather than populations) to address validity, and using case study protocol and developing a sufficient database to address reliability. Lincoln and Guba (1985) listed three activities that lend to trustworthiness of findings: prolonged engagement, persistent observation, and triangulation. According to Cresswell (2007), techniques that address questions of trustworthiness include prolonged engagement and persistent observation, triangulation, member checking, clarifying researcher bias, and using thick description. These five techniques will be discussed here, followed by a brief description of the artifacts of data collection and analysis that created an audit trail for the study. Finally, this section will address concerns about social validity and generalizability.

**Prolonged Engagement and Persistent Observation**

The study included repeated visits to the classroom to observe and meet with teachers over a six-week period. There were ten classroom observations, eight meetings with teachers, two meetings with parents, and two coaching sessions, for a total of 22 visits. This frequency of visits over several weeks allowed the children and the staff to become more accustomed to the presence of the researcher. In addition, the researcher was already familiar to the staff as the agency’s Positive Behavior Support (PBS) trainer.
and behavior consultant; there already had been three visits conducted earlier in the year to observe and talk about child behaviors and the classroom team had participated in a two-day workshop series presented by the consultant/researcher regarding PBS topics. This kind of prolonged contact is thought to be helpful to the researcher in building trust with the participants and also aids the researcher in more deeply understanding the customs, roles, and rules of a setting (Cresswell, 2007; Lincoln & Guba, 1985). Certainly, because of the researcher’s dual role as a consultant who has worked for many years with multiple Head Start programs and for three years with the program participating in the study, engagement was fairly well established at the start of the study. In addition, repeated observations contributed to the formation of a sizable database in ways that, according to Merriam (1988) and Yin (2003) support validity.

**Triangulation**

Triangulation refers to the use of multiple data sources when conducting qualitative research (Cresswell, 2007; Lincoln & Guba, 1985; Merriam, 1988; Yin, 2003). It is based on the idea that multiple sources can supply the researcher with multiple views that offer convergence around the salient features of a phenomenon, what Yin referred to as “converging lines of inquiry” (2003, p. 98). For this study, qualitative and quantitative data were collected on the child and teachers using the following procedures: parent and teacher interviews, notes from teacher and parent meetings, review of the records, multiple direct observation sessions, participant observations during coaching sessions, rating scales and questionnaires, and artifacts in the form of classroom teaching materials. These various procedures included both multiple data sources (teachers, parents, records, direct observation) and multiple data collection methods (rating scales, oral interview, open-ended written questions, and researcher
observation and meeting notes).

**Member Checking**

In research terms, member checking involves bringing the participants into the research process by asking for their input on the accuracy and credibility of the findings (Lincoln & Guba, 1985). Because of the consensus building nature of the behavior support planning process and the open-ended relationship of consultant and consultee in behavior planning in early childhood settings, there were several natural pathways to check in with the participants in order to get their impressions of the child’s behavior, the development and implementation of the behavior support plan, and the professional development support teachers received. For this study, participants were asked for their input in ways that reflected their standings as stakeholders in two ways. First, as participants in the FBA/BSP process, their views concerning the child’s behaviors and possible behavior strategies were actively solicited as part of the standard FBA interview and BSP planning process and were incorporated into the behavior support plan. In addition, the research design called on teachers to give their impression of which kinds of behavioral strategies were more or less effective, and which kinds of professional development support were more or less effective through the use of interviews and rating scales.

While teachers did not participate in analyzing the outcomes of the study (a step often employed as part of member checking), they did participate in discussions about which behavior strategies and which professional development supports were viewed favorably. This check-in allowed for ongoing discussion and reflection during the study and contributed to shaping the behavior plan and the researcher’s understanding of professional development support.
Clarifying Researcher Bias

As the researcher carried out the dual role of participant and observer, it was essential to clarify potential researcher bias at the beginning of the study and to evaluate potential bias throughout data collection and analysis (Cresswell, 2007; Merriam, 1988). The benefits and challenges of carrying out dual roles may be considered in terms of what Bahr and Caplow (1991), among others, referred to as the “emic-etic issue” (p. 101). This is because the participant observer in case study research may reflect both the insider view (emic) and the outsider (etic) view. Yin (2003) noted that it is important in good case study research to assure that the researcher has sufficient opportunity to carry out the observer role. For this study, the role of observer was built into the participant role because of the nature of behavior consultation and its reliance on repeated observation as an essential tool. The researcher was able to add the observation of teachers to the child observation component in a naturalistic way for the classroom team.

As a practitioner in the field of early childhood for more than 35 years, the researcher has worn each of the “hats” that reflect the participant roles, including parent, assistant teacher, early childhood teacher, and special education teacher. During that time, the researcher as practitioner has addressed children’s behavioral needs, conducted functional behavior assessments, developed and carried out behavior support plans, and consulted in numerous classrooms on behavior management, positive behavior support, and teaming issues related to communication and conflict resolution. Each of these experiences has been helpful in understanding typical expectations in early childhood settings including Head Start, the roles and responsibilities that are part of the early childhood team approach to child care, typical barriers to planning and implementation in terms of time, training, and scheduling, and the theoretical framework and recommended
research-based strategies that serve as foundations for behavior change interventions for young children using positive behavior support.

As an evaluator, behavior consultant, and mentor teacher, one of the cumulative effects of hundreds of hours spent in other people’s classrooms, taking notes, watching children and teachers, the researcher has had much practice as an observer of the social emotional landscape, someone who is aware of nuances of behavior, who sees some of the those times when a child almost connects with another child socially but is misunderstood, and some of those times when a child succeeds in making a connection because an observant teacher stepped in to bridge the gap with words or actions.

As a special education teacher well practiced in functional behavior assessment and positive behavior support models, the researcher has become more likely to see behavior as communication and to focus behavior plans on preventing inappropriate behavior by rearranging the environment and teaching new skills, rather than putting a lot of consequences into place. According to the research (Scott et al., 2005) and the experiences of the researcher as practitioner, these views are not typically held by teachers, who may be more reactionary than proactive in addressing challenging behavior, focusing more often about how to respond once the behavior has occurred rather than how to prevent the behavior in the first place. This view has lead to the current study, a small look at a particular group of teachers who were given a positive behavior support framework to change what they do in relation to a child with behavioral needs.

*Thick Description*

Thick description refers to collecting data that is rich in detailed information so that readers may know more about the participants and setting described in a case study.
For this study, the researcher had originally planned to use observation sheets designed to simplify tabulating frequencies of the behaviors specified in the FBA and BSP as part of a single-subject design research. Instead, as the suitability of the case study approach became more clear, the researcher chose to keep rich observation notes that could be coded for multiple kinds of interactions and events, thus setting a context for any given behavior and recording many of the behaviors of the adults and children in an interaction. Rather than summarizing events in the researcher’s words, thick description calls on the researcher to take detailed notes that all the participants’ voices and views to be heard (Denizen, 2001). For this study, the researcher was careful to reflect direct quotes and clear descriptions of events as they unfolded during observation and record direct quotes during meetings and interviews.

Five techniques to establish trustworthiness have been described. Next is a brief description of the artifacts of the study that have resulted in an audit trail, followed by two short discussions on social validity, especially as it pertains to functional behavior assessment and behavior planning, and generalizability in qualitative research.

Audit Trail

Lincoln and Guba (1985) described the audit trail as the “residue” (p. 319) left from an inquiry. Miles and Huberman (1994) refer to the term “auditability” (p. 278) in ways that suggest reliability. Based on work by Halpern (1983, as cited by Lincoln & Guba, 1985), the audit trail allows others to examine the activities of the researcher in terms of data collection and analysis and the research process, itself. Such residue or evidence includes raw data, data reduction such as summaries of field notes, interviews, and observations, quantitative summaries, and reduction strategies. The data and analysis from this study did not receive an external audit; however, there is ample evidence of the
nature of the events under study and the research process in the appendices including observation transcripts and meeting/interview notes. In addition, the classroom has several artifacts as a result of behavior support plan (BSP) and this study, including the following: visual schedules for morning and afternoon activities, photos of children engaged in prosocial behavior, solution card sets designed to aid children with problem solving, sticker awards for “super friends” behavior, and scripted stories illustrating prosocial behaviors.

Social Validity

Because this study examined a team of teachers carrying out a functional behavior assessment and behavior support plan, it is important to say a few words about social validity. Social validity focuses on the attitudes of stakeholders (in this case the teachers and family) and the social acceptability of the focus of intervention, the procedures used in intervention, and the importance of the behavior changes that take place (Wolf, 1978). While these concerns are not directly included in the various lists of standards to be addressed in qualitative research related to trustworthiness, social validity is a fundamental consideration when conducting a functional behavior assessment and developing a behavior support plan (Lucyshyn et al., 2002). This is because of the individualized and context-specific nature of applied behavior analysis and behavior support, and because interventions are more likely to be carried out with fidelity when they are judged to be practical and worthwhile by the families and teachers who are responsible for long-term carryover (Albin, Dunlap, & Lucyshyn; 2002; Scott et al., 2005; Stormont, Lewis, & Smith, 2005; Wolf, 1978).

For the current study, social validity was measured using two Likert-Scale type instruments: the Behavior Support Plan Acceptability Rating Form and the Behavior
Strategy Rating Scale. These measures were completed by teachers during BSP development and allowed classroom stakeholders to describe target behaviors and intervention procedures they considered feasible and acceptable. Finally, also related to social validity, teachers were asked to complete the Professional Development Support Rating Scale.

Generalizability

A frequent criticism of case study design, along with qualitative research in general, is that its findings cannot be related to the larger population (Yin, 1989, 2003). This function of research, to make statements about the larger population based on a carefully selected sample, depends on statistical inference, the backbone of experimental and quasi-experimental designs. In contrast, case study research design does not allow for the kinds of inferences that can be made in experimental and quasi-experimental research design. What case study design researchers can do, however, is generalize to the theoretical proposition that served as an underpinning to the study. As Yin described it, the case study allows researchers to examine their findings in terms of “analytical generalization” rather than statistical generalization (2003, p. 10). In the current study, the researcher hoped that the examination of four teachers carrying out a single behavior plan in a single classroom would provide evidence of the propositions on which the study questions are based and so would shed more light on behavior change in teachers and professional development supports that are designed to support teachers.

Procedure

Preliminary Steps

In this early childhood Head Start program in which staff have had two full years of program-wide positive behavioral support (PBS) training based on the Teaching
Pyramid approach (Center on the Social Emotional Foundations for Early Learning [CSEFEL], 2008; Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003), teachers were invited to participate in the study based on the presence of a classroom referral of a child who demonstrated challenging behavior and who was a candidate for more intensive individualized behavioral interventions. According to PBS and the Teaching Pyramid approach, children whose behavior has not been ameliorated through level-one classroom-wide preventive practices and level-two social skills instruction emerge at the “top” of the pyramid and typically require individualized functional behavior assessment and behavior support planning. In addition, the child participating in the study was classified as a preschooler with a disability and was receiving support for delays in language, fine motor, and social development.

Functional Behavior Assessment

In order to describe the needs of the child and classroom team, and for the purposes of this study, a functional behavior assessment was conducted according to the model originally presented by O’Neill et al. (1997) and described in the PBS – Teaching Pyramid training literature (CSEFEL, 2008). As is standard in the functional behavior assessment format, observations, review of records, and interview were included. The FBA was conducted through a team process and was facilitated by the behavior consultant/researcher. It included an interview with the parents, and interview with the four-member teaching team, a review of the records, the use of behavior rating scales, and four classroom observations. Instruments used as part of the FBA process included the Functional Behavior Assessment Interview Protocol (based on O’Neill et al., 1997), and two child behavior rating scales: The Preschool and Kindergarten Behavior Scales, Revised (PKBS-2) (Merrell, 2002) and the Motivation Assessment Scale (MAS) (Durand

**Behavior Support Plan**

A behavior support plan (BSP) was written by the behavior consultant/researcher based on the FBA. In addition to the procedure typically followed at Head Start, for the purposes of the study a meeting with the teaching team was conducted to review and approve the final version of the BSP and to assess the teachers’ views regarding the feasibility and acceptability of the BSP overall and of three groups of strategies included in the BSP: prevention, teaching, and responding. While the parents expressed an interest in learning more about the BSP strategies, attended a meeting describing their child’s progress, and received a set of materials for home use related to the BSP, for the purposes of this study data was collected in the classroom only. As is typical, the BSP had three parts: prevention, teaching replacement skills, and responding to target behavior, with specific teacher strategies described for each part. Data was collected through a series of classroom observations and teacher meetings in order to describe changes in child and teacher behaviors, and in order to determine which BSP strategies were more readily implemented and which might be the targets of a higher level of professional development support.

**Professional Development Support for Teachers**

In order to assist with implementation of the BSP, two levels of support called *review* and *coaching* were provided to classroom teaching staff:

1. Review was planned to consist of a 30-minute discussion and explanation of the FBA/BSP conducted by the facilitator/researcher at the start of the implementation phase. During implementation, two additional 20 minute review sessions were planned to share child data that has been collected during two
weeks of implementation. These reviews took place one time per week during the first two weeks of BSP implementation and were to include all the individuals on the teaching team.

2. Coaching of low-implementation strategies were to place in a 30 minute session and were to consist of a review of child and teacher data and demonstration by the behavior consultant/researcher of selected strategies in two practice sessions in the classroom. Strategies were considered in the “low implementation” category when any teacher fails to use strategies or utilizes strategies incorrectly more than 25% of the time, given the conditions described in the FBA/BSP. Coaching was planned to occur during weeks three and four and was to include all four individuals on the teaching team.

Schedule and Three Phases of the Study

The following schedule was planned in order to carry out the study. It included the following three phases: preliminary activities, conducting the FBA and planning the BSP, and the BSP intervention.

Phase one: preliminary activities.

- Present study to early childhood agency
- Identify potential child/teacher participants
- Present study to child’s family and teachers
- Identify potential additional participants (family members, Head Start staff)
- Complete Consent Forms
- Complete Teacher Demographic Checklist for teachers

Phase two: conducting the FBA & planning the BSP over two weeks.

- Conduct functional behavior assessment (FBA) as follows:
o Interview classroom teachers and family members using FBA Interview Form;

o Complete child behavior scales: Motivation Assessment Scale (Durand & Crimmins, 1992) and Preschool and Kindergarten Behavior Scales-2 (Merrell, 2002);

o Complete Learning Environment Assessment;

o Review records;

o Conduct four one-hour observations of the child’s behaviors and the teachers’ use of strategies in the classroom.

• Write FBA including description of behaviors; likely function of behaviors; suggested replacement behaviors; identification of environmental factors including setting events, triggers, and maintaining consequences; behavior hypothesis; and strategies currently in use to address behavior.

• Meet with team to review FBA;

• Draft Behavior Support Plan (BSP), based on FBA, administration of Behavior Support Plan Acceptability Rating Form and team discussion;

• Meet with team to review draft BSP;

Phase three: BSP intervention.

Intervention Week-One

• Initiate BSP;

• Conduct two child/teacher observations;

• Conduct 30 minute BSP review session with classroom teachers based on child data;
Intervention Week-Two

- Conduct two observations, collecting child and teacher data
- Conduct 30 minute coaching session to review child and teacher data with classroom teachers with focus on low implementation strategies.

Intervention Week-Three

- Present two coaching demonstrations during classroom time
- Conduct two 30 minute coaching sessions to review child and teacher data with classroom teachers with focus on low implementation strategies.

Intervention Week-Four

- Conduct two observations, collecting child and teacher data;
- Provide teachers with Professional Development Rating Scale.

Instrumentation

Seven assessment instruments and a protocol form were used in carrying out the study. The instruments and protocol satisfied three purposes: First, three of the instruments and one protocol were used as part of the typically occurring functional behavior assessment process at Head Start. These instruments were: the FBA Interview Protocol, the Motivation Assessment Scale (MAS) (Durand & Crimmins, 1992) the Preschool and Kindergarten Behavior Scales-2 (PKBS-2) (Merrell, 2002); and the Learning Environment Assessment. Second, two of the instruments were designed to measure teacher attitudes regarding the behavior support plan: the Behavior Support Plan Acceptability Rating Form and the Behavior Strategy Rating Scale. Third, two instruments addressed the teachers’ experience and attitudes towards the professional development support offered as part of the study: the Teacher Demographic Checklist and the Professional Development Rating Scale. Each group of assessment instruments
Functional Behavior Assessment Instruments and Forms

The Functional Behavior Assessment Interview Protocol is based on the work of O’Neill, Horner, Albin, Sprague, Storey, Newton presented in their seminal 1997 handbook, Functional Assessment and Program Development for Problem Behavior, and later revised for preschool-aged children by The Center on the Social and Emotional Foundations for Early Learning (CSEFEL, 2008). It is the protocol used at Head Start by the behavior consultant. The protocol specifies the behaviors of concern, antecedents to the behavior, including setting events and immediate triggers (those things that happen just before the behavior takes place), maintaining consequences, the hypothesized function of the behaviors, and suggested replacement behaviors. In addition, the protocol includes questions that ask the respondents to describe the child’s interests and those settings and times when behaviors are least likely to occur. It also asks teachers to specify what strategies have been employed to address the behavior.

The Motivation Assessment Scale (MAS) by Durand and Crimmins (1992) is a 16-item rating scale designed to be completed by an individual who knows the child in order to determine which of four categories (attention, tangible, escape, and sensory) are reported to be likely motivators of a child’s behavior. Two example items are: does the behavior seem to occur when you’re talking to other persons in the room; does the behavior occur when any request is made of the person? The respondent is asked to rate the child on each item using a six-point scale, from zero for never to six for always.

According to a review of the MAS in Buros Mental Measurements Yearbook (MMY) by Boothroyd (2001), the authors, Durand and Crimmins, reported intrarater Pearson correlations in the range of .80-.95, with 30-day test-retest reliabilities that
ranged from .89-.98. Boothroyd noted that the authors did not report estimates for individual test-retest or internal consistency reliability estimates for the four categories. In terms of validity, the MMY reviewer reported that the authors cited some evidence of construct validity for the four categories according to research by Bihm, Kienlen, Ness, and Poindexter (1991); however, the reviewer concluded that more research is needed. The reviewer also suggested that the MAS has utility when used in conjunction with other methods of assessment (a view also held by the authors of the MAS), but that due to the age of the instrument and the difficulty reported by Boothroyd with replicating adequate reliability findings, it is suggested that the MAS be used only in context with other observations and scales.

Given these concerns, and based on typical assessment practices at Head Start, the MAS was used for this study in conjunction with other assessment tools and served primarily as one of several avenues to talk with teachers and family members about motivation in terms of the function of behavior.

_The Preschool and Kindergarten Behavior Scales, second edition_, (PKBS-2) (2002) by Merrell is designed to evaluate social skills and problem behaviors of children ages three through six. Originally published in 1994, the PKBS-2 has 76 items divided between a Social Skills Scale (with subscales for cooperation, interaction, and independence) and Problem Behavior Scale (with subscales for externalizing and internalizing behavior and five supplemental subscales). Sample statements from the Social Skills Scale are: works or plays independently; apologizes for accidental behavior that may upset others. Sample statements from the Problem Behavior Scale are: acts impulsively without thinking; has problems making friends. The directions ask the respondent to rate the child on each item by circling a zero for _never_, one for _rarely_, two
for *sometimes*, and three for *often*. Scoring subtotals yield risk level descriptors, such that a child’s scores may indicate *no risk*, *moderate risk*, and *high risk*. Referred to by Merrell as a “three-level interpretation strategy” (2002, p. 21), the moderate risk level includes the most problematic 5% to 15% of scores and the high risk level includes the most problematic 5% of scores. For the social skills subscales, lowest scores indicate higher risk. For the problem behavior subscales, higher scores indicate higher risk. The PKBS-2 manual makes clear that the scores serve as screening measures and are not meant to be diagnostic; however, problematic scores do indicate that further assessment and intervention may be advisable.

There are two sets of normative data and conversion tables for home and school raters. Merrell (2002) reported that this home/school difference was a factor in the development of the second edition of the PKBS in that the difference between the school and home score distributions was “slightly more than one fourth of a standard deviation… a meaningful effect” (p. 42). This led to separate scoring conversion tables for home and school raters in the 2002 edition. Merrell noted that:

Home-based raters tend to show higher levels of both social skills and problem behaviors (possibly) because (parents) have more opportunities than teachers to observe their children over time and across situations (and) are simply more aware of the variety and intensity of behaviors that their children may exhibit. (p. 42).

According to a review by Fairbank in the Buros Mental Measurements Yearbook (2005), the test’s author reported that the PKBS-2 was standardized using a nationwide sample of more the 3,000 children which was representative of U.S. population’s ethnic makeup. High coefficients of internal reliability were reported, ranging from .81-.97 using Cronbach’s coefficient alpha and the Spearman-Brown split-half reliability.
formula. There is “substantial evidence for content validity” (Fairbank, 2005, ¶ 8) through comparison with other child behavior rating scales and through exploratory factor analysis conducted during the instrument’s development (Merrell, 2002).

*The Learning Environment Assessment for the Early Childhood Setting* was developed by the researcher and was based on the environment checklist by Hemmeter and Fox (2007) as part of their Teaching Pyramid Observation Tool, designed to evaluate preschool classroom environments for evidence of recommended practices in positive behavior support. *The Learning Environment Assessment* includes 20 items for the physical environment and the social environment, which are noted as present (Y) or absent (N). An example of an item pertaining to the physical environment is: classroom is arranged such that there are not large, wide open spaces to run. An example of an item pertaining to the social environment is: transitions are well organized with minimal wait time.

*Behavior Support Plan Assessment Instruments*

Two instruments were developed by the researcher to assess teacher attitudes about the behavior support plan. *The Behavior Support Plan Acceptability Rating Form* is an eight-item rating tool using a Likert-like scale. It was adapted from Lane & Beebe-Frankenberger’s (2004) *Treatment Acceptability Rating Profile, Revised*, and Reimers and Wacker’s 1988 *Ratings of the Acceptability of Behavioral Treatment Recommendations* form (as cited by Lane & Beebe-Frankenberger, 2004). The *Behavior Strategy Rating Scale* was also developed by the researcher and is adapted from the *Intervention Rating Profile-15* by Witt and Elliott (1985, as cited by Lane & Beebe Frankenberger, 2004). This scale was presented to teachers in three versions, focusing on the three kinds of strategies included in the behavior plan: prevention, teaching, and
responding.

**Teacher Professional Development Instruments**

Two instruments were developed by the researcher to describe teacher characteristics and teacher attitudes towards professional development. The *Teacher Demographic Checklist* is a simple four-item list used to describe teacher preparation and experience. The *Professional Development Support Rating Scale* was designed to gather information concerning which professional development supports were perceived as helpful to teachers when implementing the behavior support plan. Using the scale, teachers were asked to rank six kinds of support as more or less helpful, and to answer three open-ended questions about professional development support. This scale was also adapted from the *Intervention Rating Profile-15* by Witt and Elliott (1985, as cited by Lane & Beebe Frankenberger, 2004).

**Data Collection and Analysis**

Data collection took place in each of the three phases of the study: preliminary activities, conducting the FBA and planning the BSP, and the BSP intervention. The data collection was conducted by the behavior consultant/researcher.

**Preliminary Activities Phase**

During the preliminary activities phase, the *Teacher Demographics Form*, including questions such as classroom role, education, gender, PBS training, and years teaching experience, was completed by the teachers. In addition, consent forms were obtained for all participants.

**FBA and BSP Planning Phase**

During the FBA and BSP planning phase, the following measures were used:

- *Functional Behavioral Assessment Interview Protocol*
• Learning Environment Assessment, revised for Early Childhood Settings
• Motivation Assessment Scale (MAS)
• Preschool & Kindergarten Behavior Scale-2 (PKBS-2)
• Behavior Support Plan Acceptability Rating Form
• Behavior Strategy Rating Scale

Intervention Phase

During the BSP intervention phase the following measures were used:

• Professional Development Support Rating Scale

Two Levels of Data Analysis

Data analysis was carried out at two levels: the child and the teachers. First, analysis meant to describe the child’s social skills, target behaviors, environmental factors, and frequency of child behaviors was based on the behavior support plan (BSP) and researcher classroom observations. Second, analysis meant to examine the type and frequency of teacher behaviors was based on researcher classroom observations.

For data related to teachers’ behaviors and attitudes, data analysis was carried by analyzing the raw data (classroom observation notes, interview and meeting notes, and teacher responses recorded on rating scales) in three ways. First, the ten one-hour observation session notes were transcribed from handwritten notes, word for word, and then analyzed based on the coding system described below in Coding Classroom Observation Notes. Second, notes taken at parent and teacher meetings were transcribed using major headings related to the topics that came up during the meetings, as described below in Meeting Notes. Third, Likert-like scales were used to record teachers’ attitudes and beliefs about the overall behavior support plan and three types of strategies. In addition, teachers were asked to rate six kinds of professional development support and to
answer open-ended questions related to their view of professional development support.

For data related to the child’s behavior, data analysis was carried out analyzing the classroom observation notes (see section below). In addition, notes from two functional behavior assessment (FBA) interviews with parents and teachers were transcribed using the standard FBA format. The FBA format, used in conjunction with direct observations, provided a mechanism to analyze behaviors in terms of environmental factors, function, and suggested replacement behaviors. Parent and teacher views of the child’s behavior were also described through two standardized instruments, the *Preschool and Kindergarten Behavior Scales, revised* (PKBS-2), and the *Motivation Assessment Scale* (MAS).

**Coding Classroom Observation Notes**

The researcher attempted to capture the actions and language of the child, as well as the actions and language of teachers and peers related to the child through analyzing and coding ten hours of observation notes. Miles and Huberman (1994) described coding as an analytical process in which field notes are reviewed and labeled according to meaning and topic in order to organize and synthesize the raw data into meaningful chunks. In many cases, the coding system arises from the data, as the researcher finds repeating words and meanings that can be grouped, usually based on a “start-list” determined before the study begins (p. 58).

For this study, the start-list was comprehensive, based on observable developmental and social interaction skills described by Linder (1990, 2008) in her early childhood assessment program that emphasizes social interaction as a mediator for development. Linder’s observation guidelines were chosen as a particularly useful basis for coding because they describe language and social interactions of both the child and
communication partner in a pragmatic and functional way. For example, Linder’s observation guidelines for social-emotional development instruct the observer to watch for child and adult behaviors during interactions. Sample items include the following:

   How does the child acknowledge the presence of a peer (a. ignoring, withdrawing, unaware; b. looking at, watching; c. touching, gesturing; d. vocalizing, talking) (Linder, 1990, p. 197)?

   How does the child react to parental requests, limit-setting, or control (Linder, 1990 p. 140)?

   How do the (adult’s) techniques of matching the child’s content, timing and intensity affect the child’s: a. initiation of interactions or activities, b. turn-taking, c. affect (Linder, 1990 p. 141)?

Linder’s observation guidelines closely match the functional approach to behavior and language that typifies functional behavior assessment and behavior support planning (CSEFEL, 2008; O’Neill et al., 1997). In addition to Linder’s model, the researcher also relied on FBA procedures to describe behaviors identified by the FBA and BSP as target behaviors and replacement behaviors. Frequency counts were then taken for each coded category of child and teacher behaviors. The researcher was watchful for categories that might emerge during observation, or that might by merged into other categories. For example, the researcher considered coding for an additional behavior of concern, knocking down children’s block structures. Initially, the teachers reported being very concerned about this behavior; however, it was not observed during four FBA observations, and the researcher decided to include that behavior under a larger category of verbal, gestural, and physical teasing (T). This was because it happened infrequently and had some of the same characteristics as other teasing actions. Taking objects (O) was
initially coded as a separate behavior, but was later included under teasing (T) during analysis. Another category, spitting (S), was added by the researcher during observation when over two days spitting appeared frequently. The behavior then dropped to zero and was not seen again, thus appearing to be less salient over time as a separate category. This was another category that could be merged under teasing (T), though it was left as a category to illustrate the marked change in frequency.

Child behaviors included in the final analysis and coding were:

- **P** Pushing/hitting/squeezing
- **N** Noncompliance
- **T** Teasing with words, gestures, taking objects
- **S** Spitting
- **C** Compliance with requests by others
- **S/P** Positive peer interaction such as smiling, talking, playing
- **S/T** Positive teacher interaction such as smiling, talking, playing

Teacher behaviors included in the final analysis and coding were:

- **R+** Responds to positive/neutral behavior or language
- **R-** Responds to negative behavior or language
- **I+** Ignores pos/neutral behavior/language
- **I-** Ignores negative behavior/language
- **X** Initiates interaction/new topic
- **B** Attempts to block hit/push
- **BSP** Uses a BSP Strategy
- **S/T** Positive teacher/child interaction
Meeting Notes

The researcher/consultant took notes during FBA interviews and teacher meetings. The notes were then transcribed based on topic headings that emerged from the meetings. Examples of topics were teachers’ views about using particular strategies, teachers’ comments about the child’s behavior, teachers’ comments about the BSP and progress related to changes in the child’s behavior, and problem-solving around child behaviors that were less amenable to change. The researcher attempted to include as many of the teachers’ direct comments as possible, so that individual teacher language and themes could be separated out from general teacher comments. Patterns were noted in both the language teachers used during meetings and the kinds of interactions they had with the child. Patterns were also noted in the responses to open-ended questions related to professional development.

To summarize data collection and analysis, several types of data collection methods were used, including direct observation, meeting and interview notes, checklists, rating scales, and open-ended questions. Data were collected at two levels: child and teachers. Analysis included data reduction using coding analysis, noting patterns when reducing the codes to themes (Creswell, 2007); displaying the data in tables, frequency counts for child and teachers’ behavior, and summarizing findings for checklist and rating scales.

Summary

This chapter described the methodology used in the design and implementation of the study. It presented the rationale for choosing embedded case study design and discussed issues of trustworthiness related to case study design and qualitative research. It also included descriptions of the setting, participants, and procedures followed in
conducting the study, as well as a description of instrumentation and data analysis procedures.
CHAPTER FOUR: RESULTS

This embedded case study examined the implementation of a behavior support plan in a Head Start classroom. The primary focus of the research questions was teacher behavior and attitudes. A secondary focus was changes in child behavior. Data were collected through several methods: repeated direct observation, rating scales, interview, researcher meeting notes, teacher responses to open-end written questions, and a review of the child’s records. The study was based on four propositions leading to four research questions. According to Yin (2003), case study research does not allow for the formulation of research hypotheses; instead, it is by formulating clear propositions that the researcher using case study design examines phenomena in a theoretical framework that purposefully guides data collection and analysis. This study’s propositions were formulated based on the researcher’s clinical experience and research findings that described a lack of treatment fidelity on the part of teachers carrying out behavior plans (Duda et al., 2004; Gable et al, 2003; Scott et al., 2005; ) and were closely tied to the research questions. The questions and propositions are listed here, along with brief descriptions of the data collection methods used to address each question.

1. Question One: To what degree do teachers implement specific behavioral support strategies that are part of a positive behavioral support plan?

Proposition One: Teachers are likely to lack fidelity when carrying out behavior support plans in the classroom

This question was addressed through researcher observation. The researcher’s field notes were analyzed and coded for specific behavioral strategies used by individual teachers. Teachers’ impressions of the strategies and their implementation were included in the field notes related to teacher/researcher meetings. In addition to examining teacher
behaviors, the *Learning Environment Assessment, revised for Early Childhood Settings*, was completed by the researcher at the beginning and end of the study in order to assess the overall classroom environment related to positive behavior supports.

2. Question Two: To what degree are changes in child behavior related to teacher implementation of the behavior support plan?

Proposition Two: Child behaviors improve when teachers implement a well-designed behavior support plan.

This question was addressed through researcher observation. The researcher’s field notes were analyzed and coded for specific child behaviors, including both the behaviors of concern targeted in the behavior support plan and the prosocial behaviors described in the behavior plan as “replacement behaviors”. An interview protocol and two assessments related to the functional behavior assessment phase were used to help define specific target behaviors and replacement behaviors for the child. These included the following: the *FBA Interview Protocol*, the *Motivation Assessment Scale* (MAS) (Durand & Crimmins, 1992) the *Preschool and Kindergarten Behavior Scales-2* (PKBS-2) (Merrell, 2002);

3. Question Three: To what degree are changes in teacher behavior related to professional development support?

Proposition Three: The addition of well-designed professional development support improves teacher fidelity.

This question was addressed through researcher observation. The researcher’s field notes were analyzed and coded for specific behavior strategies used by teachers. The level of implementation and the kinds of strategies implemented by teachers were compared across two professional development conditions: reviewing and coaching.
4. Question Four: Which behavioral strategies aimed at child behavior are considered by teachers to be important and feasible, and which kinds of professional development supports are viewed by teachers as helpful?

Proposition Four: To the extent that teachers judge behavior support plan strategies to be feasible, they are more likely to carry out BSP strategies.

This question was addressed using four rating scales (Behavior Support Plan Acceptability Rating Form, Behavior Strategy Rating Scale, and the Professional Development Support Rating Scale), as well as researcher notes from teacher meetings.

Results from the Functional Behavior Assessment

Prior to addressing the four questions posed in this study, it is first necessary to summarize the results of the Functional Behavior Assessment (FBA) and describe the resulting Behavior Support Plan that was central to the results. Therefore, a summary of the findings of the functional behavior assessment interview and observation process is presented here. Included are a list of the child’s behaviors, a description of the events that were taking place before and after the behaviors occurred, hypotheses about the function of the behaviors, and suggestions for new behaviors that might replace inappropriate ones. Also included are the results of the child behavior rating scales: The Preschool and Kindergarten Behavior Scales, Revised (Merrell, 2002) and the Motivation Assessment Scale (Durand & Crimmins, 1992); and the parents’ observations and concerns.

FBA Teacher Interview and Observation Results

Through the functional behavior assessment interview process, three behaviors of concern were described by the child’s teachers: poking, hitting, and noncompliance (summarized in Table 4.1). During the interview, the teachers noted that the behaviors sometimes occurred in a sequence, with behaviors becoming more intense over several
minutes. They expressed concerns about safety in the classroom, especially for peers who were being targeted, noting that the child who was the focus of the FBA (the “focus child”) could be quite persistent in his attempts to hit a targeted peer, despite teachers’ attempts at blocking his path. During classroom observation by the researcher/consultant, it was noted that the child targeted two peers in particular and that hitting greatly decreased on the days when the “target” peers were absent. For both targeted peers, the focus child appeared to be seeking attention. One peer had a strong reaction of alarm, crying out and placing her hands up in self-protection when the child approached. Typically, the focus child approached this peer and quickly poked, hit, or pushed, waited for a reaction, and then ran away smiling. A second peer had a more positive reaction to being poked, at times smiling and poking back. In these instances, the focus child was more likely to continue poking or playfully chase the peer.

Table 4.1

Behaviors of Concern Identified Through the FBA

<table>
<thead>
<tr>
<th></th>
<th>Behavior</th>
<th>How often</th>
<th>How long</th>
<th>Intensity (L-M-H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poking peers</td>
<td>Several times an hour</td>
<td>Brief (less than one minute)</td>
<td>L</td>
</tr>
<tr>
<td>2</td>
<td>Hitting &amp; pushing “targeted” peers; kicking &amp; hitting adults</td>
<td>Several times an hour (can be more than 15 x a day)</td>
<td>Brief , continues until stopped by an adult</td>
<td>L-H</td>
</tr>
<tr>
<td>3</td>
<td>Noncompliance – not following teacher requests, saying “no”</td>
<td>Several times an hour (can be more than 15 x a day)</td>
<td>Brief, though also can extend 20 minutes</td>
<td>M-H</td>
</tr>
</tbody>
</table>

Both of the children who were most frequently targeted for hitting were children who were classified as a “preschooler with a disability” and who had deficits in social communication. Their responses were different; one child responded in alarm and the other with engagement, but both kinds of responses provided attention to the focus child.
Teachers reported that behaviors were least likely to happen when the focus child was engaged with an adult in a one-to-one activity, when he was seated at a table, and when he was playing on his own with a preferred toy, such as a train puzzle. Teachers reported that behaviors were most likely to occur during transitions and when the child was finished with a toy or game and had not yet found a new activity. According to teachers, at these times he roamed the classroom and had a hard time settling into a new activity. Behaviors were reported to happen at any time of the day but were considered more likely to occur at less structured times. The child was reported to be most attentive in smaller structured groups and when he was about to receive a favored outcome that directly affected him, such as going outside or getting a desirable job assignment. (Teachers reported that the child was often motivated by being asked to help with an activity.)

Based on observation, a review of the records including the child’s IEP and initial multidisciplinary evaluation conducted in the fall of 2008 to determine eligibility for services as a “preschooler with a disability”, and interviews with the parents and teachers, a set of hypotheses about the child’s behavior was developed. Results from the initial evaluation indicated delays in cognitive skills performance, social skills, receptive and expressive language skills, and fine motor development. It was noted in the evaluation report that the child was “highly self-directed”, such that the evaluators found it was difficult for him to sustain attention and motivation during tasks (Individualized Education Program, 2008, p. 5). According to the IEP and evaluation report, cognitive and language delays included difficulty in following directions, answering questions, and using comparative terms and concepts. In the area of fine motor development, records
indicated delays in grasp and visual motor tasks such as copying simple lines. In the area of social development, it was reported that the child had a high activity level and had difficulty with attending, taking turns, sharing play schemes, and transitioning to new activities. The evaluation report suggested that some of performance delays that were observed during evaluation may have been associated to some degree with compliance and social communication needs.

During FBA discussions, one hypothesis suggested that the function of hitting and poking was to gain attention and that it would be beneficial for the child to learn new ways to gain attention, such as greeting others and asking to play. Another hypothesis suggested that the function of non-compliant behavior, such as saying “No” to routine requests, was primarily to escape demands and to stay with a preferred activity. It was suggested that it would be beneficial to make less preferred activities more appealing by including a job in the request. It was also suggested that, initially, the child learn to ask for an alternative activity in order to replace shouting “No” and running from teachers. Over time, teachers would be able to expect more participation in the typical routines at Head Start.

These hypotheses guided the FBA/BSP Team in planning which prevention, teaching, and responding strategies to put into place, and were used in the development of the behavior support plan (BSP) (Table 4.2).
Table 4.2

Hypotheses about the Behaviors of Concern

<table>
<thead>
<tr>
<th>distant setting</th>
<th>immediate trigger</th>
<th>behavior</th>
<th>maintaining consequence</th>
<th>function</th>
<th>replacement behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>No factors reported</td>
<td>Presence of other child</td>
<td>Poking</td>
<td>Getting child and teacher attention</td>
<td>Attention</td>
<td>Tapping, calling out the person’s name, giving a “hi five”</td>
</tr>
<tr>
<td>No factors reported</td>
<td>Inactivity or the presence of peer</td>
<td>Hitting &amp; pushing</td>
<td>Getting child’s reaction and teacher attention</td>
<td>Attention from peer and nearby adults</td>
<td>Giving a “hi five”</td>
</tr>
<tr>
<td>No factors reported</td>
<td>Teacher tells C to stop what he’s doing (sit down, come here, get off)</td>
<td>Noncompliance (not following teacher requests, leaving group activities)</td>
<td>Continuing his own agenda</td>
<td>Escaping demands</td>
<td>At circle time, showing teacher his “break card” to signal an alternative activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Getting teacher attention</td>
<td>Following his own agenda</td>
<td>Having a job, showing his “job card”</td>
</tr>
</tbody>
</table>

Children Behavior Rating Scales Results

The child’s parents and teachers were asked to fill out two rating scales in order to learn more about his social skills, behavior, and possible motivations for inappropriate behaviors. The results will be summarized here.

*The Preschool and Kindergarten Behavior Scales, Revised (Merrell, 2002)*

This assessment tool consists of five subscales included under two headings: the Social Skills Scale and the Problem Behavior Scale. Scoring yields risk level descriptors, such that a child’s scores may indicate no risk, moderate risk, or high risk. The results of the PKBS-2 for the focus child according to school rater assessment are summarized in
Table 4.3. The school rater assessment was conducted by the school psychologist on the child’s IEP team as part of the IEP annual review process and was reviewed by the consultant/researcher as part of the FBA records review process. The home rater assessment was conducted by the researcher/consultant for the purposes of the FBA and Table 4.3

*PKBS-2 (Merrell, 2002) School Rater*

<table>
<thead>
<tr>
<th>PKBS -2 Subscales –School Rater</th>
<th>Standard Score</th>
<th>Percentile Rank</th>
<th>Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Skills Scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Cooperation</td>
<td>62</td>
<td>2</td>
<td>High</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>65</td>
<td>3</td>
<td>High</td>
</tr>
<tr>
<td>Social Independence</td>
<td>69</td>
<td>4</td>
<td>High</td>
</tr>
<tr>
<td><strong>Social Skills Composite</strong></td>
<td>60</td>
<td>2</td>
<td>High</td>
</tr>
<tr>
<td><strong>Problem Behavior Scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Externalizing Problems</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Centered/Explosive</td>
<td>132</td>
<td>97</td>
<td>High</td>
</tr>
<tr>
<td>Attention Prob/Overactive</td>
<td>130</td>
<td>98</td>
<td>High</td>
</tr>
<tr>
<td>Antisocial/Aggressive</td>
<td>132</td>
<td>97</td>
<td>High</td>
</tr>
<tr>
<td><em>Internalizing Problems</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Withdrawal</td>
<td>117</td>
<td>86</td>
<td>High</td>
</tr>
<tr>
<td>Anxiety/Somatic Problems</td>
<td>132</td>
<td>98</td>
<td>High</td>
</tr>
<tr>
<td>Problems</td>
<td>100</td>
<td>53</td>
<td>WNL*</td>
</tr>
<tr>
<td><strong>Problem Behavior Composite</strong></td>
<td>127</td>
<td>95</td>
<td>High</td>
</tr>
</tbody>
</table>

*WNL = Within Normal Limits*
PKBS-2 (Merrell, 2002) Home Rater

<table>
<thead>
<tr>
<th>PKBS-2 Subscales –Home Rater</th>
<th>Standard Score</th>
<th>Percentile Rank</th>
<th>Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Skills Scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Cooperation</td>
<td>80</td>
<td>9</td>
<td>Moderate</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>103</td>
<td>49</td>
<td>WNL*</td>
</tr>
<tr>
<td>Social Independence</td>
<td>89</td>
<td>18</td>
<td>WNL</td>
</tr>
<tr>
<td><strong>Social Skills Composite</strong></td>
<td>89</td>
<td>18</td>
<td>WNL</td>
</tr>
<tr>
<td><strong>Problem Behavior Scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalizing Problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Centered/Explosive</td>
<td>117</td>
<td>87</td>
<td>Moderate</td>
</tr>
<tr>
<td>Attention Prob/Overactive</td>
<td>123</td>
<td>93</td>
<td>Moderate</td>
</tr>
<tr>
<td>Antisocial/Aggressive</td>
<td>123</td>
<td>92</td>
<td>Moderate</td>
</tr>
<tr>
<td>Internalizing Problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Withdrawal</td>
<td>115</td>
<td>85</td>
<td>Moderate</td>
</tr>
<tr>
<td>Anxiety/Somatic Problems</td>
<td>104</td>
<td>63</td>
<td>WNL</td>
</tr>
<tr>
<td><strong>Problem Behavior Composite</strong></td>
<td>118</td>
<td>87</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

*WNL = Within Normal Limits

this study. Both the home and school assessments were conducted in March, 2009. Parent responses to the PKBS-2 rating scale items are summarized in Table 4.4.

In the current study, the school rater reported high risk levels in all areas, with the exception of anxiety. For the focus child, the results of the PKBS-2 indicated that there may be significant difficulty with both social skills development and behavior. Social skills deficits were also reflected in the limited social play skills and social problem solving skills demonstrated at school during the researcher’s observation sessions. Social skills deficits served as indicators that the behavior support plan needed to include a
strong social skills teaching component. The home rater indicated moderate risk in some areas, including social cooperation, activity level, explosiveness, and anxiety. Parent concerns were summarized in the comments section of the PKBS-2. The child’s mother indicated that the child “has a hard time, most of the time, concentrating and sitting still.” She also commented that he is “easily annoyed” and “tends to yell a lot, not follow orders right away” (PKBS-2, parent rater).

The Motivation Assessment Scale (MAS) (Durand & Crimmins, 1992)

This rating scale was completed by both teachers and parents. It is a 16-item scale that is designed to ascribe motivation to behaviors and has been used here as a part of a comprehensive assessment process. As noted by the authors (Durand and Crimmins, 1992) and the Mental Measurements Yearbook reviewer, Roger Boothroyd (2005), the MAS has utilitarian value in presenting four possible motives for behavior commonly associated with functional behavior assessment: satisfying sensory needs, escape from a demand, attention seeking, and getting a tangible item. The results are summarized in Table 4.5.

Table 4.5

Motivation Assessment Scale (MAS) (Durand & Crimmins, 1992)

<table>
<thead>
<tr>
<th>MAS</th>
<th>Sensory</th>
<th>Escape</th>
<th>Attention</th>
<th>Tangible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Home Rater</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Ranking</td>
<td>2.5</td>
<td>3</td>
<td>4.5</td>
<td>5</td>
</tr>
<tr>
<td>Ranking</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>School Rater</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Ranking</td>
<td>2.5</td>
<td>4</td>
<td>3.5</td>
<td>5.25</td>
</tr>
<tr>
<td>Ranking</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

According to MAS ratings from both school and home, getting a tangible item is
the most likely motivator and sensory stimulation (either avoiding or seeking stimulation through behaviors such as rocking, head shaking, etc.) is the least likely motivator. The teachers reported escape to be a slightly more motivating factor; the family reported that attention was slightly more motivating at home. During observation, gaining attention from peers and escaping demands appeared to be significant motivating factors, in addition to getting tangible objects.

While teachers interpreted grabbing toys as an attempt to get a tangible object, it was noted during observation that when the child took a toy from another child it appeared to be related to seeking that child’s attention, rather than obtaining the toy. At these times the child was likely to return with the toy in a moment and start to play nearby with similar toys, as if initially taking the toy was a social entry strategy used to express interest in the activity and peers.

**Parent Observations and Concerns**

While the study questions did not address parent views or home behaviors, the parents were a part of the functional behavior assessment team and expressed interest in both the assessment process and behavior planning at school and home. During the interview, the parents talked about their pride in their child’s strengths and their concerns about perceived weaknesses.

**Strengths**

In terms of strengths, the parents described their four-year-old as “head strong”, with his father commenting that it “will be a strength (as he grows). He’s a little alpha male. He likes to be in charge.” Both parents thought that the child could more often be a “leader” and “helper” at school and that taking on those roles might help with behavior. Another strength described by the parents was that the child was a “very caring kid” who
was reported to be careful with his two-month-old baby sister, helpful in her care, and interested in her well-being and development. A third important strength reported by the parents was that the child was “very smart”. They wondered if some of the behavior problems at school stem from boredom. His parents reported that he already knows preacademic information such as alphabet letter names and sounds, and counts to 30 (FBA Family Interview, March 20, 2009).

**Concerns**

In terms of concerns, the parents named behavior as a major concern. First, they were concerned about getting reports from the special education teacher that “he’s been bad in school”. His maternal grandmother has mentioned to mom that she’s concerned that it’s a “negative” behavior when he has hurt someone. The family is stressing being “nice to people”. At the same time, the family is comfortable with him being active, commenting “He’s a boy, a rough kid”. They’ve gotten him a trampoline, and take him to the park and let him ride his bike “so he can be physical at home without being (too rough)”. Mom has asked dad not to rough-house anymore so that their son “doesn’t get mixed up, as it is not okay to play rough in school” (FBA Family Interview, March 20, 2009). Another concern is about compliance and following adult requests. The child’s mother reported that he “likes to push buttons (to) see how far he can get” (FBA Family Interview, March 20, 2009).

**The Behavior Support Plan**

The behavior support plan (BSP) was developed by the researcher/consultant with input from the teaching team. Once the FBA was completed, the development of the BSP included two teacher meetings to review a first draft and approve a final version. Several strategies suggested by the researcher/consultant in the initial draft were discarded and
new strategies were added, based on teachers’ feedback. Some of the parent comments were helpful in discussions regarding the development of the BSP, as they indicated that the child was more organized and cooperative at home when he was provided consistent routines and behavioral expectations. In this section, the development process and the final behavior support plan will be described.

*Developing the Behavior Support Plan*

Using procedures typical in the Head Start setting, the researcher/consultant drafted a behavior support plan using a standard three-part format and basing specific elements on the hypotheses generated during the functional behavior assessment. The three-part behavior support plan included strategies to be implemented by the teaching staff related to the following: 1) prevention; 2) teaching; and 3) responding. Prevention strategies were aimed at altering the environment, schedule, and demands placed on the child in order to prevent the onset of difficult behaviors. Teaching strategies were aimed at teaching specific skills and behaviors that could be used by the child to replace the “target” behaviors (challenging behaviors targeted by the behavior support plan for reduction or extinction). Responding strategies focused on how others might respond to the target behaviors in ways that do not reinforce those behaviors. In addition, responding strategies also included responding to appropriate replacement behaviors in ways that would selectively reinforce those newly learned desirable behaviors. Some of the strategies required making new classroom teaching materials, resulting in a Teachers’ Work Plan (discussion to follow). A draft BSP (Table 4.6) was written by the researcher/consultant and reviewed with teachers at two meetings. Two major changes took place between the draft stage and the final BSP, based on teachers’ suggestions.

Table 4.6
**Behavior Support Plan – Draft Version**

<table>
<thead>
<tr>
<th>Prevention</th>
<th>Teaching</th>
<th>Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divide class into three groups, with C separated from targeted peers</td>
<td>Use a visual schedule to show C what the activity is &amp; what’s next.</td>
<td>Decide on a classroom rule for hitting – “no hurting friends at school.”</td>
</tr>
<tr>
<td>Structure the learning centers time of day so that children choose/are assigned to specific areas. Children need to make a plan with a teacher when they are changing areas.</td>
<td>Teach C to “make a plan” for his next activity during centers and move to the new learning center w/ teacher’s hand.</td>
<td>When C hits indoors,</td>
</tr>
<tr>
<td>Have C spend more time at table toys with motivating activities, seated in a chair where he will pass by a teacher if he leaves the table. (This may mean bringing more train toys back into the classroom for a while).</td>
<td>Teach rules for playground – “if you hit, you sit” - using puppets, picture cards. Review with C before he goes outside.</td>
<td>1) tell him “no hurting friends at school” in a firm neutral voice</td>
</tr>
<tr>
<td>Use “teacher talk” to let staff know where C and peers are located.</td>
<td>Teach C to play simple structured games with peers – give him a specific role (turn the spinner, hold the teacher’s hands to make the “bridge”)</td>
<td>2) suggest, did you want to play the “surprise game”, give __ a “high five”? Let’s surprise her, etc. (show the picture)</td>
</tr>
<tr>
<td>Consider having “circle” at the tables for a while; seat C across from the teacher’s board. Give him a job to do – hold the eraser so he can erase the message “when we’re all done”, give him a job to ring the bell, beat a drum, when the short “circle” is over.</td>
<td>Teach C (and peers) to give a “hi five” to say hello.</td>
<td>3) If C is still “not safe” (i.e. he is hurting others) escort him from the area or immediately escort peer away.</td>
</tr>
<tr>
<td>When outside, engage C in play – pulling a wagon, riding a bike, playing ball with a teacher and peer.</td>
<td>Teach C to play a “surprise game” so that he has a chance to use humor to appropriately startle others with a drum, bell, etc.</td>
<td>When C hits and runs when outdoors, stop him and tell him if you hit, you sit. Show him the picture rule.</td>
</tr>
<tr>
<td>When transitioning to/from outdoors, have children go out with their groups as soon as they are ready.</td>
<td>Give C simple chores to do with another child – wash paint brushes, fill a bucket with sand, put all the letters back in an alphabet puzzle</td>
<td>Give C special activity or token when he is “a safe friend”.</td>
</tr>
<tr>
<td></td>
<td>Use social stories to explain expectations</td>
<td></td>
</tr>
</tbody>
</table>
Changes to the Draft Version of the BSP: Eliminating Suggestions for Structural Changes

First, the draft version of the BSP included prevention strategies that required structural changes to the classroom, including physically rearranging the room, grouping children in order to decrease proximity of the child with frequently targeted peers, and structuring activities to include clear behavioral expectations for children. Some of these changes would have brought the classroom into alignment with the agency’s curriculum, High/Scope, including planning traffic flow between learning centers and creating a simple mechanism to have children plan which activities to engage in, such as placing a name card at a sign-in board for each area. Some of the suggested changes were designed to make it more clear to children which learning areas were open to them at different times of day and would have arranged the shelving and tables so that there would be no large areas for running. These changes were discussed at a classroom team meeting and at a meeting with the education coordinator, who has responsibility for curriculum implementation.

During the discussions, the lead Head Start teacher and the special educator brought up for the first time that they, themselves, did not have a common understanding of which areas were open to children in the morning and that they felt it would be helpful to clarify that for teachers and children alike. The Head Start teacher commented that she had been using a more structured approach earlier in the year, but that as children with special needs, including behavioral needs, joined the class she felt that they needed less structure. Teachers decided to limit play to half the room in the morning in order to lessen running and roaming. Rather than rearrange the room or require that children plan
activity choices with teachers, they decided to place a tape-line on the floor at midpoint and indicate to children that they needed to stay on “this side of the tape” during arrival and free play (Classroom Arrangement Meeting, 4/7/09).

The teachers added several preventive changes what were very helpful. First, they gave the child a permanent job at the Morning Message Circle. As the “message helper”, the child was able to help the teacher by turning the pages for each of three daily messages. Second, because teachers reported that the child continued to run from the group as soon as his job was over, the team rearranged the order of events in ways that helped to maintain the child’s interest. Two steps were taken. Job assignments (a highly preferred activity) followed a less preferred music activity, and visuals were used to show “what’s next” during morning circle: music, messages, and line-up for outdoors. These changes significantly increased participation and curtailed running from the group.

*Changes to the Draft Version of the BSP: Adding the Use of the Timer*

The second major change involved responding to behavior once it had occurred. The draft versions included a three-step strategy in which teachers were to 1) get the child’s attention and state the rule “no hurting friends at school”; 2) suggest a replacement behavior such as asking for a turn; 3) immediately escort him from the play area if he continues to be unsafe, repeating the rule and telling him he is “all done” in that play area. The draft versions also used a strategy for outdoor play, including use of the key phrase, “If you hit you sit”, and required the child to sit with a teacher for a minute. This was in consideration of the impracticality of sending the child to a new “play area” in an open playground. The “If you hit you sit” strategy was very acceptable to the teachers, who decided to use a timer and have the child sit for all hitting infractions, both in the classroom and outside. At the first BSP review meeting the teachers reported that
showing the child the timer had been effective in curtailing hitting. At the second BSP review meeting the special educator, who most often used what became known as “the timer strategy”, said that the timer had become a “game” and that the child sometimes took the timer and ran from teachers. When teachers made it clear that the child could not return to play until he sat, he would sit with the timer after a few minutes of avoidance. They decided to keep using the timer.

*Teachers’ Work Plan*

Both draft and final versions of the BSP included a Teacher Work Plan (Table 4.7) that specified tasks that would need to be carried out by staff in order to put strategies in place, such as making materials. When looking over the 15 possible choices listed in the draft version of the Teacher’s Work Plan (including room rearrangement and grouping), the teachers chose to carry over 11 tasks into the final version of the Work Plan. The final version of the Teacher Work Plan was agreed to at a classroom BSP review meeting. As it was necessary to complete the Work Plan in order to fully implement the final version of the BSP, teachers agreed to be responsible for specific tasks and to meet target deadlines. Initially, the researcher considered the Work Plan as a procedural matter, assuming that teachers would complete the jobs as indicated on the plan in order to get started with BSP implementation. In fact, teachers did not carry out major portions of the plan, such that the implementation of the Teachers’ Work Plan became another outcome related to teacher fidelity and implementation of the BSP addressed in Question One.

Progress on the Work Plan was discussed with teachers during follow-up observations and a BSP and Work Plan review meeting. Teachers indicated that lessons on greeting others using “Hi five” and on telling a peer “Stop” as a response to hitting
had taken place and that children were now more likely to say “Stop” and walk away.

Table 4.7

*Teachers’ Work Plan – Final Version*

<table>
<thead>
<tr>
<th>Job</th>
<th>Person(s) Responsible</th>
<th>Target Date</th>
<th>Date Complete</th>
<th>Materials Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Make a portable Visual Schedule for C that can be reviewed at each transition.</td>
<td>Photos – T2</td>
<td>4/20/09</td>
<td></td>
<td>Poster board, Velcro, artwork, laminate, Key ring</td>
</tr>
<tr>
<td>2. Make Clean-Up Cards for C and peers to use at each clean-up time.</td>
<td>T1</td>
<td>4/20/09</td>
<td></td>
<td>Poster board, artwork, laminate</td>
</tr>
<tr>
<td>3. Make classroom Super Friends Poster to post in play areas and/or at the door to the playground.</td>
<td>Plan class activity – T1 Photos: T2</td>
<td>4/20/09</td>
<td></td>
<td>Poster board, artwork, laminate</td>
</tr>
<tr>
<td>4. Write a Social Story “What We Do at Circle”.</td>
<td>Psychologist - photos</td>
<td>4/20/09</td>
<td></td>
<td>Photos, poster board, laminate</td>
</tr>
<tr>
<td>5. Write a Social Story “I Play with My Friends”.</td>
<td>Psychologist - photos</td>
<td>4/20/09</td>
<td></td>
<td>Photos, poster board, laminate</td>
</tr>
<tr>
<td>6. Make a supply of Super Friend Awards that can be clipped on clothing and taken home.</td>
<td>T2</td>
<td>4/20/09</td>
<td></td>
<td>Paper, clips</td>
</tr>
<tr>
<td>7. Plan lessons to teach “STOP, turn and walk away” when someone hits.</td>
<td>T1</td>
<td>Began wk of 3/30</td>
<td>Began wk of 3/30</td>
<td>None</td>
</tr>
<tr>
<td>8. Plan lessons to teach greetings: “Hi!” and “High Five”.</td>
<td>T1</td>
<td>Began wk of 3/30</td>
<td>Began wk of 3/30</td>
<td>None</td>
</tr>
<tr>
<td>9. Make several sets of Solution Cards that can be kept in play areas – ready to use.</td>
<td>Researcher - Consultant</td>
<td>4/20/09</td>
<td></td>
<td>Cards, laminate, key rings or boxes</td>
</tr>
<tr>
<td>10. Review classroom arrangement and Schedule.</td>
<td>Team, Ed Manager</td>
<td>4/20/09</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>11. Plan specific group activities for activity times and monitor changing activities.</td>
<td>Team</td>
<td>Began wk of 3/30</td>
<td>Began wk of 3/30</td>
<td></td>
</tr>
</tbody>
</table>

when hitting occurred. They also indicated that they had implemented more structured
activities in the morning and that the tape-line was effective in curtailing some running and roaming, though its use required monitoring and verbal reminders from teachers. Jobs that were not completed included all the jobs that required making materials. These tasks were initially due for completion on 4/13/09. Teachers talked about not having time to make materials, and having technical difficulties making color copies, getting a battery for a camera and downloading and printing photos of children in the class. As a result, the researcher/consultant used photos from the school psychologist and took additional photos in order to make the materials for full implementation of the BSP possible. All materials were available to teachers on 4/23/09.

Final Version of the Behavior Support Plan

The final version of the BSP (Table 4.8) was completed based on feedback regarding the draft version and was given to teachers in early April. Teachers agreed to all the components and were already using some of the strategies. The researcher/consultant changed the format of the final version in order to give teachers a better sense of when to use particular strategies. In addition to listing separate columns for prevention, teaching, and responding, the final version also included “activity time” guidelines listing four major times of day: circle time (large group teacher-directed activities), transitions (changing between activities), activity time, and outdoors. At the time of final review of the BSP, teachers were still talking about possibly making classroom changes by offering more structured activities throughout the day.
### Behavior Support Plan (Final Version)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Prevention</th>
<th>Teaching</th>
<th>Responding</th>
</tr>
</thead>
</table>
| **Circle** | 1. Give C the “message board helper” job at circle time to keep him engaged and help him to follow rules. When C is in an activity with the peers he tends to target:  
2. Teach the rule: “If someone tries to hit, say “STOP”; then turn and walk away”.  
3. Teach problem-solving using the “Solution Cards”.  
4. Review Classroom Rules using puppets: “Keep your hands on your own body” & “If you hit, you sit.”  
5. Use social stories individually and with the class: “What We Do at Circle” & “I Play with My Friends”.  
6. Use social stories individually and with the class: “What We Do at Circle” & “I Play with My Friends”.  
7. Use social stories individually and with the class: “What We Do at Circle” & “I Play with My Friends”. | When C or other children run - have them go back and show “walking feet”.  
Give C opportunities to be a helper – zip a child’s coat, carry the teacher’s notebook, etc. | **When C hits:**  
1. Get his attention; look him squarely in the face and say in a firm neutral voice. “If you hit you sit”. Show him the timer.  
2. Suggest an alternative behavior: “I wonder if you want to tell ___ you want to play?”  
3. If C is still not safe, tell him. “When you hit, you sit.” Escort him from the area immediately and have him sit with the timer, with a teacher nearby.  
4. After a minute, repeat the “no hitting” rule. Talk with about what he wants to say/do. Have C plan with the teacher where he will safely play.  
**When C uses words to get his needs met, walks between classroom areas, helps a child, etc.** | 
1. Use praise, “I like the way my friend C is sharing.”  
2. Use Teacher Talk to let other teachers know what a good friend C is, “He did a super job helping __ You two are really cooperating. Great team work!”  
3. Give C and peers a special activity or token when he/they are “good friends”. Take a photo, draw a picture, write a note with stickers and send it home as a “Good Friend” Award.  
4. Take pictures of children cooperating, sharing, solving problems together – post around the classroom. |
| **Transition** | Just before Clean-Up Time gets started, have C choose a Clean-Up Job using Clean-Up Cards. Review the rules with C: “If you hit, you sit” and “Hands on own body”. Use a visual schedule. Keep transitions brief and have an adult nearby. | When C or other children run - have them go back and show “walking feet”.  
Give C opportunities to be a helper – zip a child’s coat, carry the teacher’s notebook, etc. | **When C hits:**  
1. Get his attention; look him squarely in the face and say in a firm neutral voice. “If you hit you sit”. Show him the timer.  
2. Suggest an alternative behavior: “I wonder if you want to tell ___ you want to play?”  
3. If C is still not safe, tell him. “When you hit, you sit.” Escort him from the area immediately and have him sit with the timer, with a teacher nearby.  
4. After a minute, repeat the “no hitting” rule. Talk with about what he wants to say/do. Have C plan with the teacher where he will safely play.  
**When C uses words to get his needs met, walks between classroom areas, helps a child, etc.** | 
1. Use praise, “I like the way my friend C is sharing.”  
2. Use Teacher Talk to let other teachers know what a good friend C is, “He did a super job helping __ You two are really cooperating. Great team work!”  
3. Give C and peers a special activity or token when he/they are “good friends”. Take a photo, draw a picture, write a note with stickers and send it home as a “Good Friend” Award.  
4. Take pictures of children cooperating, sharing, solving problems together – post around the classroom. |
| **Activity Time** | Structure activity times so that it is clear which centers are “open”. Avoid roaming & running. When C is in an activity with the peers he tends to target:  
For all children, reinforce positive peer interactions and how to use words.  
Reinforce “Hands on own body” and “If you hit, you sit.”  
Have C spend more time at table toys with motivating activities – interactive play is easier when children are seated across from each other.  
Structure activity times so that children start out in specific areas. Have C make a plan with a teacher when changing areas. Teachers monitor to see that he follows through. | Teach C to play simple structured games with peers – give him a specific role (turn the spinner, hold the teacher’s hands to make the “bridge”, take the orders at the pretend restaurant, etc.).  
Give C opportunities to cooperate by giving him activities to do with another child – wash paint brushes, fill a bucket with sand, etc. Help C and other children problem-solve using the “Solution Cards”.  
When C or other children run have them go back and show “walking feet”.  
Teach and practice getting attention by saying, “Hi” and giving a “high five”. | **When C hits:**  
1. Get his attention; look him squarely in the face and say in a firm neutral voice. “If you hit you sit”. Show him the timer.  
2. Suggest an alternative behavior: “I wonder if you want to tell ___ you want to play?”  
3. If C is still not safe, tell him. “When you hit, you sit.” Escort him from the area immediately and have him sit with the timer, with a teacher nearby.  
4. After a minute, repeat the “no hitting” rule. Talk with about what he wants to say/do. Have C plan with the teacher where he will safely play.  
**When C uses words to get his needs met, walks between classroom areas, helps a child, etc.** | 
1. Use praise, “I like the way my friend C is sharing.”  
2. Use Teacher Talk to let other teachers know what a good friend C is, “He did a super job helping __ You two are really cooperating. Great team work!”  
3. Give C and peers a special activity or token when he/they are “good friends”. Take a photo, draw a picture, write a note with stickers and send it home as a “Good Friend” Award.  
4. Take pictures of children cooperating, sharing, solving problems together – post around the classroom. |
| **Outdoors** | Review expectations before C goes outside: “Hands on your own body” and “If you hit, you sit.” | When outside, engage C in social play – hide & seek, pulling another child in a wagon, playing ball. | **When C hits:**  
1. Get his attention; look him squarely in the face and say in a firm neutral voice. “If you hit you sit”. Show him the timer.  
2. Suggest an alternative behavior: “I wonder if you want to tell ___ you want to play?”  
3. If C is still not safe, tell him. “When you hit, you sit.” Escort him from the area immediately and have him sit with the timer, with a teacher nearby.  
4. After a minute, repeat the “no hitting” rule. Talk with about what he wants to say/do. Have C plan with the teacher where he will safely play.  
**When C uses words to get his needs met, walks between classroom areas, helps a child, etc.** | 
1. Use praise, “I like the way my friend C is sharing.”  
2. Use Teacher Talk to let other teachers know what a good friend C is, “He did a super job helping __ You two are really cooperating. Great team work!”  
3. Give C and peers a special activity or token when he/they are “good friends”. Take a photo, draw a picture, write a note with stickers and send it home as a “Good Friend” Award.  
4. Take pictures of children cooperating, sharing, solving problems together – post around the classroom. |
Research Question Results

Results for each of the four research questions will be presented here. In the final chapter (Chapter Five) the results will be discussed in terms of the study’s underlying propositions, rival explanations, limitations, and directions for future research.

**Question One: To what degree do teachers implement behavioral support strategies that are part of a positive behavioral support plan?**

This question was addressed using data collected during observations and discussions with teachers, and the Learning Environment Assessment. Important topics addressed here are teacher demographics, and teacher behaviors including teacher/child interactions, teacher implementation of specific strategies, and a description of the classroom environment before and after BSP implementation.

*Results for Teacher Demographics Checklist*

Using the Teacher Demographic Checklist, it was determined that all of the teachers had attended Positive Behavioral Support training provided by Head Start and so had received an overview description of challenging behavior, behavior as communication, and the FBA and BSP process. Teachers reported varying certifications and years in the classroom: Head Start lead teacher (Teacher J/T1), more than ten years classroom experience and two-year college degree; special education teacher (Teacher S/T2), more than ten years experience in the classroom (though relatively new to preschool) and a master’s degree; Head Start assistant teacher (Teacher R/T3), 5-10 years classroom experience and four-year college degree; and the program aide (Teacher A/T4), some college courses and one-two years teaching experience.

*Teacher Behaviors in Overview*

Researcher notes from the four FBA phase observations and the six BSP phase
observations were analyzed and coded to get a picture of which kinds of teacher behaviors and interactions were present at “baseline” and during implementation. The following coding system for teacher behaviors was used, based on Linder’s Transdiciplinary Play-Based Assessment (2008) and analysis of the researcher’s notes:

- **R+** Responds to positive/neutral behavior or language
- **R-** Responds to negative behavior or language
- **I+** Ignores pos/neutral behavior/language
- **I-** Ignores negative behavior/language
- **X** Initiates interaction/new topic
- **B** Attempts to block hit/push
- **BSP** Uses a BSP Strategy
- **S/T** Positive student/teacher interaction

For example, an observation entry was coded in the following manner for teacher behaviors:

Teacher S (T1) approaches him and asks him to come out of the play area he’s standing in because it’s “closed”. (R-)

C ignores her and begins to look for a toy to play with in the closed area. Teacher S suggests he can play with a fishing game in the “open” part of the classroom. (X). C is interested and moves to the “open” part of the room, taking the game with him. He lines up a set of toy fish on the floor, while saying to no one in particular, “Everyone, sit on the carpet”. He pauses, and then repeats his request verbatim two more times. (This appears to be an attempt to call other children over to play the fishing game with him.) No response from the teacher (I+)” (FBA Observation #1).
Table 4.9 displays the results of ten one-hour observations that took place at the same time each day including four FBA observations, four BSP observations before coaching, and two BSP observations after coaching.

Table 4.9

<table>
<thead>
<tr>
<th>Teacher Behavior</th>
<th>R+ (FBA)</th>
<th>R- (FBA)</th>
<th>I+ (FBA)</th>
<th>I- (FBA)</th>
<th>X (FBA)</th>
<th>B (FBA)</th>
<th>BSP (FBA)</th>
<th>S/T (FBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 15 1 5 3 0 2 3</td>
<td>7 9 3 7 6 4 3 8</td>
<td>2 14 1 3 3 3 0 5</td>
<td>4 5 2 0 7 0 2 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>43</strong></td>
<td><strong>7</strong></td>
<td><strong>15</strong></td>
<td><strong>19</strong></td>
<td><strong>7</strong></td>
<td><strong>7</strong></td>
<td><strong>23</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>4</strong></td>
<td><strong>10.75</strong></td>
<td><strong>1.75</strong></td>
<td><strong>3.75</strong></td>
<td><strong>4.75</strong></td>
<td><strong>1.75</strong></td>
<td><strong>1.75</strong></td>
<td><strong>5.75</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Behavior</th>
<th>R+ (BSP)</th>
<th>R- (BSP)</th>
<th>I+ (BSP)</th>
<th>I- (BSP)</th>
<th>X (BSP)</th>
<th>B (BSP)</th>
<th>BSP (BSP)</th>
<th>S/T (BSP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 16 7 2 9 1 4 15</td>
<td>1 10 0 2 8 0 5 10</td>
<td>2 7 0 2 7 0 4 11</td>
<td>6 9 2 2 1 0 4 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>61</strong></td>
<td><strong>9</strong></td>
<td><strong>10</strong></td>
<td><strong>35</strong></td>
<td><strong>1</strong></td>
<td><strong>31</strong></td>
<td><strong>72</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>3.33</strong></td>
<td><strong>10.17</strong></td>
<td><strong>1.5</strong></td>
<td><strong>1.67</strong></td>
<td><strong>5.83</strong></td>
<td><strong>.16</strong></td>
<td><strong>5.17</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**Table 4.9 Key: Teacher Behaviors**

- **R+** Responds to positive/neutral behavior or language
- **R-** Responds to negative behavior or language
- **I+** Ignores pos/neutral behavior/language
- **I-** Ignores negative behavior/language
- **X** Initiates interaction/new topic
- **B** Attempts to block hit/push
- **BSP** Uses a BSP Strategy
- **S/T** Positive teacher/child interaction
- **FBA** Functional Behavior Assessment Observations
- **BSP** Behavior Support Plan Observations

Several general statements can be made about teacher behaviors, given the data
presented in Table 4.9. First, teachers were much more likely to attend to negative child behavior \((R-)\) than positive child behavior \((R+)\), both prior to BSP implementation and during BSP implementation. While this was likely due, in part, to the level of negative behavior displayed by the child (to be addressed in Question Two), there were a number of opportunities for teachers to reinforce positive behavior that were ignored \((I+)\) (see example above). Teachers also ignored some negative behaviors \((I-)\). While planned ignoring is sometimes a useful strategy to decrease inappropriate behavior, the teachers’ use of ignoring did not appear to be aimed at that purpose. For example,

C looks up and sees G (a girl classmate who is often targeted). Shows G her toy again (he had taken it from her earlier). Pushes her, and looks over at nearby adult. G calls “help” loudly and C runs off. No adults intervene \((I-)\) (FBA Observation #1 Notes).

Second, the data show that teachers were somewhat more likely to initiate \((X)\) interaction by suggesting new activities and new topics during the BSP phase and were much more likely to participate with the child in a conversation or activity \((S/T)\), more than doubling the average number of times they were positively engaged with the child between FBA and BSP phases.

Third, blocking \((B)\) was virtually eliminated as a teacher behavior during the BSP phase, due to the de-escalation of hitting. During the FBA phase, most of the blocking was carried out by the assistant teacher (T3) in order to protect the targeted girl classmate, who often spent time with the assistant teacher (T3). As the targeting of that peer diminished (likely due both to improving behavior and also the poor attendance of the targeted peer on data collection weeks), so did the need to block.

Fourth, use of behavior support plan strategies as a whole increased during BSP
observations, changing from an average of 1.75 times per hour during FBA observations, to 5.17 times per hour. Because the BSP depended, in part, on taking advantage of the strengths of the teaching team in terms of what they were already doing that was working, several of the strategies being used by teachers during FBA observations were included in the BSP, with the goal of increasing frequency of use. Four strategies were observed during FBA observations, including re-teaching classroom rules, giving the study’s focus child classroom “helper” jobs, modeling appropriate replacement behaviors in response to inappropriate behavior, and facilitating the child’s attempts at simple games with peers. These strategies were sparsely used during FBA observations, with a total of seven instances over four hours of observation, and use increased during BSP observations.

*Teacher Implementation of Specific BSP Strategies*

Teachers did implement some of the strategies discussed during the development of the BSP. This section focuses on the work plan and implementation of the BSP strategies, and includes a review of strategy implementation by teacher and by type of strategy.

*Teachers’ work plan.* As noted in the section about BSP development, the teachers took on assignments to prepare activities and produce the materials needed to provide visuals, positive reinforcers, and scripted stories to support improved behavior. As already noted, teachers did not fulfill the jobs as outlined on the Work Plan. Implementation for the Work Plan materials/tasks is summarized below:

**Prevention**

- Visual Schedule for AM and PM classroom routines – The researcher made morning and afternoon schedule cards using photos of the classroom.
• Clean Up Time “Helper Job” Cards – The researcher made a set of five job cards using photos from the classroom.

Teaching:

• *Solution Cards – The classroom had a large-sized set of cards (approximately 6” x 8”) illustrating children solving social problems about toy ownership by “sharing”, “waiting”, “taking turns”, etc. In addition, the researcher supplied the classroom with six sets on mini-cards on a ring (four for teachers, one for the speech-language pathologist, and one for the parents).

• Stop and Hi-Five cards – The researcher provided two picture cards for use during large and small group in order to practice saying “hi” and saying “stop” to peers who are approaching in a friendly manner and in an unsafe manner. The lead Head Start teacher (T1) reported teaching these two lessons on several occasions. During observation sessions she reminded children to use these skills. Children were also observed spontaneously using these skills.

• *Scripted Stories: “What Do We Do at Circle” and “I Can Use My Words”. The classroom had a copy of the first story, and the researcher supplied a copy of the second story. The lead Head Start teacher (T1) reported reading these stories to the group on several occasions, though not during observation sessions.

• Scripted Story: “I Play with My Friends” using photos from the classroom was provided by the researcher. The lead Head Start teacher (T1) reported reading this to the group on several occasions, though not during observation sessions.

Responding:

• *Super Friends Awards – The researcher provided sheets of colored smile face – thumbs up “stickers” to distribute to children based on positive behavior related to
demonstrating friendship skills, cooperating, and following rules.

- *Super Friends Poster – The researcher provided a 2x3’ wall poster and took photos of children in the class demonstrating positive behaviors to mount on the poster, with the help of children in the class.
- Timer – The classroom provided a one-minute timer to be used during “If you hit you sit” timeouts.
- (*Based on Positive Behavior Support (PBS) materials developed by the Center on the Social Emotional Foundations for Early Learning (CSEFEL, 2008) located at Vanderbilt University.)

As can be seen from the list of materials and lessons, with the exception of the timer and the two scripted stories which were supplied Head Start and were already in the classroom, all of the materials were supplied by the researcher after the initial Teacher Work Plan target dates had passed and teachers did not complete their assignments. Teachers reported that they had little time to work on the materials, especially given that it was “report writing season” for the special educator and the other teachers had Head Start paperwork duties they felt left them little time to start new projects. They also reported barriers in the form of technical difficulties with camera and printing equipment. The lead teacher (T1) reported that she did actively incorporate lessons and reading stories into her group activities several times a week (BSP Review Meeting, 4/21/09).

**Strategies implementation.** Table 4.10 summarizes teacher implementation of the BSP.

Table 4.10
Several general statements can be made regarding implementation. First, in terms of overall strategy implementation, ten of 17 strategies listed on the BSP were implemented
during the morning observations sessions. In addition, the lead Head Start teacher reported reading scripted stories at other times of the day. The remaining six strategies were not observed or reported as implemented, despite materials being provided and demonstration during coaching (visual schedule, clean-up cards, photos for a “Super Friends” classroom poster, and “Super Friends Awards”).

Second, while not implementing all of the strategies, teachers did implement all three kinds of strategies included in the BSP. There were six prevention strategies, six teaching strategies, and five responding strategies listed in the BSP Plan. Of these, on at least one occasion during observation sessions, teachers carried out three of six possible of prevention strategies, four of six possible teaching strategies, and three of five possible responding strategies. Over six observation sessions, the subtotals of occurrences for each of the three types of strategies were as follows: prevention strategies: 10; teaching strategies: 14; and responding strategies: 7. Because of the nature of BSP strategies and the changing context across activities and children, direct comparison by strategy-type was undertaken cautiously. The strategies selected for inclusion in the BSP were not comprised of like-items that could be quantified as comparable units. Some of the strategies were designed to take place in a planned and predictable manner. For example, structuring a three-part circle-time with a job assignment and visual cues were strategies that, once implemented, would by repeated on a regular and predictable basis. It was these kinds of planned strategies that were carried out by the lead Head Start teacher (T1) when she implemented the message helper strategy and three-part circle-time using cue cards each morning.

Other strategies were intended for use only when child behaviors in the classroom presented opportunities. For example, a problem-solving strategy using the solution cards
as visual cues would appropriately be implemented when two children were quarreling over toy ownership, but would not need to be implemented in the cases when the children solved the problem on their own using language.

A brief review of the BSP strategy implementation (refer to Table 4.10), showed that across prevention, teaching, and responding, teachers chose to implement some of each type of strategy. Three of six possible prevention strategies, four of six possible teaching strategies, and three of five possible responding strategies were implemented during observation sessions. The strategy that was implemented at the highest rate (facilitating play) was observed seven times, with most of the examples (four of seven) involving the assistant teacher (T3). This strategy was considered a “teaching” strategy in the BSP, and it included explaining the rules of a game, modeling appropriate behavior during the game, and helping the child to share a group goal, and give positive attention to others during the game.

Other strategies that were used at least four times included two related prevention strategies that involved structural changes to the morning circle: giving the focus child a regular job (message helper) and using a clear three-part activity cycle with visual cues (music, messages, line up). The morning circle strategies were most often carried out by the Head Start lead teacher (T1) as part of her lead teacher role (seven out of eight instances for the two strategies). This teacher showed more interest in addressing the behavior problems at morning circle, perhaps because she felt primarily responsible for the quality of teacher-led activities and appeared more committed to trying new strategies.

The remaining seven implemented strategies were observed one to three times each and included four “teaching” strategies (review of rules, “Stop, turn, and walk
away”, solution cards, and “Hi five”) and three “response” strategies (response to hitting procedure with the timer, praise, and teacher talk). With the exception of facilitating play, the lead Head Start teacher (T1) was observed carrying out all of the teaching strategies.

Given that ten strategies were observed and one additional strategy was reportedly in use, the six strategies that were not observed and were reported to not have been used included giving the child a job with a peer; using clean-up cards and a visual schedule to prepare the focus child for transitions; asking children who had run across the room to go back and walk, and reinforcing positive behaviors using two super friends activities (awards and inclusion of children’s photos on the classroom Super Friends Poster). The first three of these non-implemented strategies were “preventive” strategies having to do with easing the focus child through what was reported to be a challenging time – transition from individual choice time to group time. The materials to aide with transitions (visual schedule and helper cards) were made and demonstrated by the researcher to the teaching team as a whole. No single member of the team had clear role responsibility to assist the child during transitions, though it might have been expected that the special educator would take on the task as part of her role in supporting the children with special needs in the classroom. This was left to the teaching team to determine. The remaining four strategies were a combination of two teaching strategies (social stories and corrective walking) and two response strategies (super friend’s awards and poster). In this case, the response strategies were aimed at reinforcing prosocial replacement behaviors.

Third and perhaps most significant, implementation varied by teacher. The Head Start lead teacher (T1), accounted for 68% of the occurrences of observed strategies
implementation; the special education teacher (T2) accounted for 19% of observed implementation; the Head Start assistant teacher (T3) accounted for 13% of the observed implementation; and the Head Start program aide (T4) did not carry out any of the BSP strategies during observation. There are likely two factors that influenced this noticeable difference in frequency of implementation. Foremost were the role and classroom responsibilities of each teacher. The lead teacher was responsible for lesson planning and conducting group activities and so it was natural that teaching “Hi five” as a greeting and “Stop” as a response to hitting would fall to her. She also would be in a position to invite a child to help her with the morning message job, identified by the teaching team as a highly desirable job for the focus child. Of all the teachers, the program aide was least likely to be involved in adult/child interactions, as many of her duties involve classroom maintenance. This is also somewhat true of the assistant teacher, who was most available for adult/child interactions on the playground when she was not carrying out classroom duties such as supervising toileting and tooth brushing. Indeed, all four of her facilitated play interactions took place outside.

Of some interest is the role of the special education teacher. As the person responsible for addressing children’s IEP goals and for integrating children with special needs into the daily routines and learning activities at Head Start, it was expected that she would have a more active role in implementing the BSP. It may be that there are individual differences that account for her lower level of involvement in the BSP on a day-to-day basis. This possibility is more fully discussed in the section reporting results associated with teacher attitudes (Question Three).

Learning Environment Assessment

In order to assess the social emotional atmosphere of the classroom as a whole as
teachers began implementation of the BSP, a classroom checklist was used by the researcher. The *Learning Environment Assessment* includes 20 items (seven descriptors for the physical environment and 13 quality indicators for the social environment). Each quality indicator is scored as either present or not present, based on Hemmeter and Fox’s Teaching Pyramid Observation Tool (2007). These investigators stated that all of the quality indicators should be present in a high quality classroom. The classroom received a “Yes” for five of seven possible physical environment indicators and a “Yes” for eight of 13 possible indicators for the social environment. (See Chapter Three: Instrumentation for a description of the Learning Environment Assessment.)

Quality indicators receiving a “No” for the physical environment included the “Classroom is arranged such that there are no large wide open spaces to run”. As noted earlier, the classroom had running space that appeared to encourage roaming. In addition, the indicator addressing the posting of classroom rules also received a “No”, as the posted rules did not match the daily spoken reminders.

Quality indicators receiving a “No” for the social environment included the following:

1) Transitions are well organized with minimal wait time.

2) Teachers use problem solving behavior, such as affirming child feelings and suggesting possible choices, when reminding children of behavior consequences.

3) Teachers refer to a variety of emotions during the day.

4) Emotions/feelings vocabulary is displayed in pictures and words, and in books.

5) Children’s work is on display at eye level.

While the *Learning Environment Assessment* was not specifically reviewed with
the teaching team, many of the quality indicators were addressed through the FBA and BSP process, including transitions, open space, classroom rules, and modeling problem solving strategies. At the end of the observation sessions, the researcher again administered the environmental assessment. In the opinion of the researcher, the classroom had improved in both areas (physical and social indicators) but still received “No” for three indicators: open space that invited running, referring to a variety of emotions, and displaying and talking about feelings vocabulary.

Summary of Question One

Question One addressed the degree to which teachers implemented behavioral support strategies as part of a positive behavioral support plan. Based on the results from this study, teachers partially implemented the BSP and carried out selected interventions from all three types of strategies (prevention, teaching, and responding). Two factors appear to have played a part in which strategies were used, and how often and by whom they were employed.

First, teachers were more likely to continue with strategies they had been using before the FBA and BSP process. Two examples of this were the assistant teacher’s use of the facilitated play strategy both before and after BSP implementation, and the Lead Head Start teacher’s use of helper jobs as an incentive to encourage the focus child to join group activities.

Second and most significant, teachers implemented strategies at very different frequency levels. For example, the lead teacher (T1) accounted for 68% of implementation during BSP observations. This notably higher frequency (when compared to the other teachers), was associated with her lead role in the classroom, taking responsibility for classroom management and group instruction, and her proactive
relationship with the child (focusing on behavioral expectations engaging him in activities).

**Question Two: To what degree are changes in child behavior related to teacher implementation of the behavior support plan?**

Two considerations are important to examining data related to this question. First, did the child’s behavior change over the four weeks of BSP implementation and second, is there any evidence that changes were related to teacher implementation? Both will be addressed using data collected during observations and discussions with teachers. Child behaviors are displayed in Table 4.11. Behavior categories and frequencies were based on observation notes, analyzed and coded using a framework from Linder (2008) (See Chapter Three: Instrumentation), as well as behaviors identified by the FBA and BSP as target behaviors and replacement behaviors. The researcher considered coding for an additional behavior of concern, knocking down children’s block structures. It was decided to include that behavior under teasing, as it happened infrequently and had some of the same characteristics as other teasing actions. Taking objects was initially coded as a separate behavior, but also was folded into teasing during analysis.

**Changes in Child Behavior**

As evidenced by Table 4.11, there were changes in child behavior over time. In terms of decreasing inappropriate behaviors, during FBA observations teachers indicated that they were very concerned about physical actions towards other children, especially the targeting of two specific children (behavior coded as P). Initially, teachers had described two levels of physical contact, the milder poke and the more forceful hit, push,
Table 4.11

*Child Behaviors during the FBA and BSP Observations*

<table>
<thead>
<tr>
<th>Child Behavior</th>
<th>P (FBA)</th>
<th>N (FBA)</th>
<th>S (FBA)</th>
<th>S/P (FBA)</th>
<th>T (FBA)</th>
<th>C (FBA)</th>
<th>S/T (FBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>12</td>
<td>0</td>
<td>8</td>
<td>7</td>
<td>11</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>7</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>24</td>
<td>6</td>
<td>9</td>
<td>7</td>
<td>10</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>11</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
<td><strong>38</strong></td>
<td><strong>9</strong></td>
<td><strong>35</strong></td>
<td><strong>26</strong></td>
<td><strong>42</strong></td>
<td><strong>23</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>7</td>
<td>9.5</td>
<td>2.3</td>
<td>8.75</td>
<td>6.5</td>
<td>11</td>
<td>5.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>15</td>
<td>0</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>0</td>
<td>14</td>
<td>16</td>
<td>13</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>0</td>
<td>19</td>
<td>7</td>
<td>5</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>0</td>
<td>13</td>
<td>5</td>
<td>8</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>13</td>
<td>0</td>
<td>8</td>
<td>11</td>
<td>9</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>0</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>55</strong></td>
<td><strong>0</strong></td>
<td><strong>74</strong></td>
<td><strong>56</strong></td>
<td><strong>56</strong></td>
<td><strong>72</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>3.33</td>
<td>9.17</td>
<td>0</td>
<td>12.33</td>
<td>9.33</td>
<td>9.33</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4.11 Key: Child Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>P Pushing/hitting/squeezing</td>
</tr>
<tr>
<td>N Noncompliance</td>
</tr>
<tr>
<td>S Spitting</td>
</tr>
<tr>
<td>S/P Positive peer interaction</td>
</tr>
<tr>
<td>T Teasing</td>
</tr>
<tr>
<td>C Compliance with requests</td>
</tr>
<tr>
<td>S/T Positive teacher interaction</td>
</tr>
<tr>
<td>FBA Functional Behavior Assessment Observations</td>
</tr>
<tr>
<td>BSP Behavior Support Plan Observations</td>
</tr>
</tbody>
</table>

or squeeze. As it was not clear at what point the threshold between the two levels was crossed, the researcher treated the behaviors as one class of behavior. This made sense, given that both the milder poke and the harder hit appeared to be attempts to gain attention.

During some FBA observation sessions the frequency for behavior (P) was as
high as 13 and as low as zero times per hour. The frequency appeared to be related to which peers were present in school each day. On the two highest frequency days, the targeted girl classmate was present and received most of the hits. On the day when both the boy and girl peer targets were absent there were no hits. Hitting (P) decreased substantially between the FBA and BSP phases of the study, with the average dropping from 7 times an hour to 3.33 times an hour.

While teachers did not initially identify spitting (S) as a behavior of concern, it was tracked during the study when recorded during two FBA observation sessions. Spitting appears to have been a fleeting behavior, as it dropped to zero during the BSP phase. The motivation for spitting appeared to be attention-getting, in the same way that other teasing behaviors, such as growling, were also used to gain attention. Teasing (T) increased over time, changing from an average of 6.5 to 9.33 events an hour. Noncompliance remained about the same across the FBA and BSP observations.

There were increases in the frequencies of two prosocial behaviors: interactions with peers (S/P) and interactions with teachers (S/T). During BSP observations the child more often sought attention from peers by calling their names and commenting about their play. For example, during outdoor play the child spontaneously called to peers to praise their ball playing skills, checked with peers who fell on the playground, asking “Are you okay?”, and asking for attention by calling to a peer, “Look at me!” (BSP Observation #3). The child was also able to sustain play with adults and peers, especially during outdoor play where teachers were more likely to engage in active games such as hide and seek. One prosocial interaction, compliance (C), saw a slight decrease between FBA and BSP observations from 11 to 9.33 times per hour during observation sessions. In part, this was attributed to the number of requests made. On the days when therapists
worked with the child there were typically many more demands for language, including some that were ignored by the child.

To summarize changes in child behaviors, there was a substantial decrease in the most concerning set of behaviors (P) when comparing the FBA and BSP components of the study. There was also a substantial increase in prosocial “replacement” behaviors, such as greeting peers (S/P), calling for attention (S/P), and sustaining cooperative play when it was facilitated by teachers (S/T). At the same time, teasing increased by nearly 70%. It may be that this reflects an increased interest in interacting with other children. For example, on the days when the target classmates were absent and pushing/hitting decreased, the child appeared to seek attention from other peers by pushing and grabbing at toys. For example, the following was observed at the play dough table: “C rolls out his play dough for a minute and then grabs a peer’s play dough and puts it near the peer’s face (T)” (BSP Observation #1). (The significance of absences of the two children frequently targeted for hitting is discussed in Chapter Five.)

Compliance and noncompliance remained fairly stable. The number of requests made varied from day to day depending on which teachers and therapists were present in the room. The speech language pathologist consistently made the most language demands and so on those days opportunities for both compliance and noncompliance increased.

Changes in Child Behavior and Implementation of the BSP

The data indicate no clear causal connection between changes in child behavior and implementation of the BSP. For example, decreased levels of pushing/hitting may also have been associated with absences of target peers. At the same time, there was a noticeable increase in teachers’ attempts at facilitating play (S/T) and the child’s participation. This was especially true for outside play, where most of the cooperative
play took place. During FBA observations teachers were more likely to engage the child in solo adult/child play rather than directing the child’s attention to peer play. During BSP observations, teachers were observed prompting the child to smooth the transition into peer play: “Miss R, can I play? Well, there are only two rackets so you need to wait. He sits” (BSP Observation #6). A few minutes later, after the child has had his turn, he refused to give the racket to a waiting child and runs away with it for a moment. The teacher comments, “We can wait again. We’re taking turns. Look at the hour glass (playtime timer). That’s great.” C gives up the racket without protest and sits with the children who are waiting (BSP Observation #6).

Participation in the morning circle also increased noticeably once the lead teacher instituted a predictable three-part activity cycle for large group using visual prompts: music, morning messages, line-up for outdoors. Teachers reported that once the new structure was implemented there was only one instance in two weeks when the child left the group and so lost his “message helper” job. On the other days he participated in all three parts of the group time. This was a real change from the weeks prior to the new system, when teachers reported that the child left the group each day as soon as his job was done (BSP Review Meeting 4/7/09).

Summary of Question Two

Question Two addressed the degree to which changes in child behavior were related to teacher implementation of the behavior support plan. Results indicated that the child did change behavior during the implementation of the BSP, noticeably decreasing in “aggressive” behaviors such as hitting and pushing, and noticeably increasing in positive social interactions with both children and adults. While no causal link can be made based on the information gathered during the study, there were two related behavior
changes on the part of teachers. First, teachers gave more clear messages regarding
classroom rules about hitting and consequences for breaking the rules, and reported being
more consistent in their responses to hitting. Second, teachers made more attempts to
facilitate play with other peers and increased their own positive interactions with the
child. The child also became more cooperative at morning-circle time in response to
being given a job and a clear and predictable structure to the activity.

**Question Three: To what degree are changes in teacher behavior related to professional development support?**

This question was addressed through researcher observation based on the
strategies described in the Behavior Support Plan (Table 4.8) and level of implementation
by teachers (as described in Tables 4.9 and 4.10). Seven strategies were chosen for
coaching demonstration based on non-implementation by teachers during pre-coaching
BSP observations. The following strategies were the focus of coaching: two Prevention
Strategies including clean-up job cards and a visual schedule; two Teaching Strategies
including the addition of the scripted story, “I Play with My Friends”, and solution cards;
and three Responding Strategies aimed at prosocial behavior including Super Friends
Awards, teacher talk, and a Super Friends Poster. Following is a description of coaching
and a discussion of the results.
### Table 4.12

*Pre/Post Coaching BSP Strategies: Prevention*

<table>
<thead>
<tr>
<th>BSP Prevention Strategies</th>
<th>In Use Pre-Coaching</th>
<th>Targeted Coaching</th>
<th>In Use Post-Coaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Helper</td>
<td>Y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Classroom Rules Preset: “Hands on own body”</td>
<td>N</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Clean Up Cards</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Visual Schedule</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Limit play to “open” centers using boundary</td>
<td>Y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Restructure Morning Circle</td>
<td>Y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Restructure Transition and Free Play Activities</td>
<td>N</td>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

### Table 4.13

*Pre/Post Coaching BSP Strategies: Teaching*

<table>
<thead>
<tr>
<th>BSP Teaching Strategies</th>
<th>In Use Pre-Coaching</th>
<th>Targeted Coaching</th>
<th>In Use Post-Coaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Stop, turn and walk away”</td>
<td>Y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Solution Cards</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Social Stories</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Review Class Rules</td>
<td>Y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Jobs with a peer</td>
<td>N</td>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>
Table 4.14

*Pre/Post Coaching BSP Strategies: Responding*

<table>
<thead>
<tr>
<th>BSP Responding Strategies</th>
<th>In Use Pre-Coaching</th>
<th>Targeted Coaching</th>
<th>In Use Post-Coaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timer</td>
<td>Y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Super Friends Awards</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Praise</td>
<td>Y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Teacher Talk</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Photos of Children on a Super Friends Poster</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

*Coaching*

Coaching consisted of demonstration of the use of the materials for all the teachers during morning activities, lunch, and transition to a learning centers time known as “Work Time” in the High/Scope Curriculum. Each of the two demonstration sessions was followed by a coaching review meeting to discuss the use of the strategies. The researcher was clear about which strategies she was demonstrating by involving teachers in the strategy through the use of *teacher talk* (directing the teacher’s attention to the materials, and the words and actions of children involved in the demonstration). For example, at lunch time the researcher read the scripted story, “I Play with My Friends”, at each of three lunch tables and commented to the children and teachers at the tables about the story. The book was passed around so that children and could examine the illustrations (photos of children in the classroom). When the solution cards were presented, the researcher showed the card sets to children and teachers at each lunch tables and gave each teacher a set of cards on a ring in the presence of children. The children were very interested in the cards and several of them followed the researcher
around the classroom and watched as each teacher got her card set and decided where to put it, in her pocket or on her belt. The researcher explained to children and teachers that if children had a “problem” they could now go to a teacher and she could help them find a “solution” using the cards. Similar modeling took place for the other strategies over both coaching sessions.

Not all of the teachers were able to participate in the coaching review sessions at the end of the day because of scheduling; the program aide (T4) left the classroom to serve as a bus monitor and the Head Start assistant teacher (T3) left because of shortened work hours. The teachers who did participate, the Head Start lead teacher (T1) and the special education teacher (T2), indicated that the demonstrations were helpful. The special educator also indicated that carrying out the BSP might be too demanding and commented, “If we were not taking care of 15 other kids, if we could have a one-to-one (aide to work with the focus child) who was educated (it would be easier). If he (the focus child) is part of a group of children, it’s hard to do the thing that works. I don’t want to sound negative or asking for help…it takes a lot of time, over and over” (Coaching Review Session, 5/7/09). The researcher also discussed the practical use of the materials, for example where to put the container of super friends awards (small smiley face cards) so teachers could use them easily during the day and where to put classroom photos so they could be added to the super friends poster.

Results

Of the seven strategies that were the focus of coaching, three were observed being implemented by teachers the following week. The strategies that were carried over were: teacher talk, solution cards, and the social story. In the case of teacher talk, the special educator (T2) engaged in talking with another teacher in the presence of the child as a
way of highlighting to children the prosocial behavior and behavioral expectations while on the playground (BSP Observation #6). The lead teacher (T1) incidentally engaged in teacher talk with the researcher several times on coaching days (though not during formal observation sessions). In the case of the solution cards, the lead teacher kept her card set with her and used it independently two times during follow-up observations. She was also observed incidentally using the cards, both inside and outdoors with several children. The other teachers were not observed using the cards and did not carry the cards with them over the two days of follow-up observation, despite each card set’s small size and the earlier discussion about the importance of having the cards available. In the case of the scripted story, the lead teacher indicated that she had read it to children on her own, but that the focus child was not attending, as it was a large group story time – a difficult time for him to attend. She planned to read it again to smaller groups in order to ensure better attention.

Strategies that were not carried over were: the visual schedule, clean-up cards, super friends’ awards, and the super friends’ poster. The materials created to facilitate implementation of these strategies were kept near the lunch tables on a teachers’ cart that was centrally located in the classroom. Teachers had indicated that the visual schedule was a good idea. The special education teacher (T2) commented in general about the visuals, “They are wonderful tools and are easy to use. We know how” (Coaching Review Session, 5/6/07). There was some discussion about the use of the five-card set of clean-up cards being potentially unfair if their use was limited to the focus child (C). The special education teacher (T2) commented, “If everybody in the classroom needs to focus on C’s needs and not the others (then what about the rest of the class)?” (Coaching Review Session, 5/6/07). Teachers requested that more cards be made in case other
children also wanted to use them. In terms of the super friends poster, photos taken by the researcher were placed on the teachers’ cart to be added to the poster later by teachers. The special education teacher (T1) indicated that she would get a battery for her camera and continue taking photos of children for the poster very soon.

Summary of Question Three

Research results indicated that three of seven strategies were implemented after coaching. Most of the implementation was the work of the lead Head Start teacher. There were several factors that might have contributed to non-implementation, including individual teacher differences, technical barriers (the battery), unclear roles (for example, it was not determined by the team who would present the visual schedule at transition times.), and possible discomfort with individualized strategies that may give special treatment to select children (see special education teacher’s comments above).

Question Four: Which behavioral strategies are considered important and feasible and which kinds of professional development supports are viewed as helpful by teachers?

This question was addressed using three rating scales (Behavior Support Plan Acceptability Rating Form, the Behavior Strategy Rating Scale for prevention, teaching and responding strategies, and the Professional Development Support Rating Scale), as well as researcher notes from teacher meetings. Results for each of the rating scales with be discussed, along with relevant researcher notes, beginning with the two scales related to attitudes towards the BSP and ending with attitudes towards professional development.

Attitudes Towards the BSP

Behavior support plan acceptability rating form. This form was administered to all four teachers during development of the final version of the BSP (Table 4.15). Teacher responses varied on each of the eight items. In general teachers reported that
Table 4.15

*BSP Acceptability Rating Form*

<table>
<thead>
<tr>
<th>Behavior Support Plan (BSP)</th>
<th>ACCEPTABILITY RATING FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. How clear is your understanding of the Behavior Support Plan (BSP)?</strong></td>
<td>Not at all clear</td>
</tr>
<tr>
<td></td>
<td>T3</td>
</tr>
<tr>
<td><strong>2. How acceptable do you find the BSP?</strong></td>
<td>Not at all acceptable</td>
</tr>
<tr>
<td></td>
<td>T1, T2, T3, T4</td>
</tr>
<tr>
<td><strong>3. How confident are you that the BSP will be effective?</strong></td>
<td>Not at all confident</td>
</tr>
<tr>
<td></td>
<td>T3, T4</td>
</tr>
<tr>
<td><strong>4. How willing are you to carry out this BSP?</strong></td>
<td>Not at all willing</td>
</tr>
<tr>
<td></td>
<td>T3, T4</td>
</tr>
<tr>
<td><strong>5. How realistic in terms of time and resources do you think the BSP is?</strong></td>
<td>Not at all realistic</td>
</tr>
<tr>
<td></td>
<td>T3</td>
</tr>
<tr>
<td><strong>6. Do you think there might be advantages in following the BSP?</strong></td>
<td>Very few advantages</td>
</tr>
<tr>
<td></td>
<td>T2, T3</td>
</tr>
<tr>
<td><strong>7. How much time will be needed each day for you to carry out this BSP?</strong></td>
<td>Definitely too much time</td>
</tr>
<tr>
<td></td>
<td>T1</td>
</tr>
<tr>
<td><strong>8. How likely is the BSP to make substantial changes in behavior over the long run?</strong></td>
<td>Not at all likely</td>
</tr>
<tr>
<td></td>
<td>T3</td>
</tr>
</tbody>
</table>

*Note.* (Adapted from Lane & Beebe-Frankenberger, 2004; based on T. M. Reimers, and D. P. Wacker, 1988.)
they all found the BSP “acceptable” and were either “willing” or “very willing” to carry it out. They also agreed that there would be “advantages” to carrying out the plan. Teachers differed about how clear the plan was. Three of the teachers thought it was “clear” or “very clear”. Level of confidence in the plan varied from “somewhat confident”, to “unsure” and “confident”. Views of the plan’s long term effects also varied. Asked to rate the likelihood of the plan making substantial changes in the child’s behavior “in the long run”, teachers responses ranged from “somewhat likely” to that it was “likely”.

In discussion, teachers indicated that there might be barriers to carrying out the BSP. The lead Head Start teacher (T1) indicated that she thought the plan might take too much time. In retrospect, she turned out to be the teacher who put the most time into discussing the BSP, working with the researcher to prepare materials, and implementing the BSP strategies. The Head Start assistant teacher (T3) was the most skeptical in her view of the BSP. Generally quiet during teacher meetings, when asked her views she emphasized the importance of all the teachers being “on the same page” and stressed the importance of clarity and consistency for the child (BSP Review Session, 3/27/09). In an effort to improve acceptability of the plan, the researcher gave teachers the opportunity to review a draft version of the BSP, a process which included removing strategies for which teachers indicated skepticism and adding strategies that they were already using or which they suggested were helpful. For example, in the first version of the BSP the researcher/consultant suggested a teaching strategy related to increasing the focus child’s repertoire of appropriate greetings known as “the surprise game”. Instead, teachers decided to emphasize “Hi five” as a greeting and discarded “the surprise game” as an unnecessary strategy.
Behavior strategy rating scale. This scale was administered three times (Table 4.16, Table 4.17, and Table 4.18) to reflect teachers’ views about three different kinds of strategies: prevention, teaching, and responding. Responses, which ranged from positive to neutral, varied across teachers but not across types of strategies. For example, responses to statement one, “The strategy should prove effective for the child” ranged from Strongly Agree to Not Sure, for all three kinds of strategies. Most statements for all three kinds of strategies were favorable, either rated as Strongly Agree or Agree. The exception was item six, which was composed as a negative statement, such that disagreement with the statement signified approval of the strategies. This was unintended by the researcher; it was interesting to note that the teachers carefully read the questions and were able to change their response set in order to reflect their attitudes. One teacher (special educator, T1) pointed out the sentence to the researcher and made a point of scoring the item twice (see asterisk*).

As with the BSP Acceptability Rating Form results, the Head Start assistant teacher (T3) was the least sure of the BSP strategies overall, as measured by the Behavior Strategy Acceptability Rating Scales. The special education teacher (T2) was the most positive in her responses, rating seven of the ten questions as strongly agree. This strong agreement was in contrast to statements made during teacher meetings, in which she was the teacher who most often talked about barriers to implementation and spoke the most negatively about the child. She mentioned time as a barrier to making materials, the difficulty of carrying out the plan day to day, and the potential unfairness to other children (BSP Review, 5/6/09). She described the child as “upping the ante”, “playing games” with teachers (BSP Review 4/7/09), and “provoking” others and selecting “a new victim” when he began to hit a child he hadn’t hit before (BSP Review 5/6/09).
### Table 4.16

**Behavior Strategy Rating Scale - Prevention**

<table>
<thead>
<tr>
<th>Strategies: PREVENTION</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The strategy should prove effective in changing child’s behavior.</td>
<td>T2</td>
<td>T1 T4</td>
<td>T3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 *The strategy is consistent with strategies I have used before.</td>
<td>T2</td>
<td>T1 T4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 The strategy is a fair way to handle this child’s behavior.</td>
<td>T2</td>
<td>T3 T4</td>
<td>T1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 The strategy is a good way to address this child’s behavior.</td>
<td>T2</td>
<td>T1 T3 T4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 *The strategy makes a lot of sense to me.</td>
<td>T1 T2 T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 *There are better ways to handle this child’s behavior.</td>
<td>T1 T3 T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 The strategy will not have negative side effects for the child.</td>
<td>T2</td>
<td>T3</td>
<td>T1 T4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 The strategy will not have a negative impact on the class.</td>
<td>T2 T3 T4</td>
<td>T1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 I would recommend this strategy to others.</td>
<td>T2</td>
<td>T1 T3 T4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 The strategy will be beneficial to the child.</td>
<td>T1 T2 T3 T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*2. T3: “Some yes, some no.”
*5. T3: “Some yes, some no.”
*6. T2 filled in (1) but explained she meant (5).*

**Note.** Adapted from the Intervention Rating Profile-15 Source: J. C. Witt and S. N. Elliott (1985), as cited in Lane & Beebe-Frankenberger, 2004.
Table 4.17

Behavior Strategy Rating Scale - Teaching

<table>
<thead>
<tr>
<th>Strategies: TEACHING</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T2 T1 T4</td>
<td></td>
<td>T3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>T2 T1 T3 T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>T2 T4</td>
<td>T1 T3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>T2 T4</td>
<td>T1 T3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>T2 T1 T3 T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>T1 T3 T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>T2 T1 T3 T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>T2 T1 T3 T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>T2 T1 T4</td>
<td></td>
<td>T3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>T2 T4</td>
<td>T1</td>
<td>T3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.18

Behavior Strategy Rating Scale - Responding

<table>
<thead>
<tr>
<th>Strategies: RESPONDING</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The strategy should prove effective in changing child’s behavior.</td>
<td>T2 T4</td>
<td>T1</td>
<td>T3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The strategy is consistent with strategies I have used before.</td>
<td>T2 T4</td>
<td>T1 T2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The strategy is a fair way to handle this child’s behavior.</td>
<td>T2 T4</td>
<td>T1 T3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The strategy is a good way to address this child’s behavior.</td>
<td>T2</td>
<td>T1 T3 T4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The strategy makes a lot of sense to me.</td>
<td>T2 T4</td>
<td>T1 T3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>There are better ways to handle this child’s behavior.</td>
<td></td>
<td>T1 T3 T4</td>
<td>T2</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The strategy will not have negative side effects for the child.</td>
<td>T2</td>
<td>T1 T3</td>
<td>T4</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>The strategy will not have a negative impact on the class.</td>
<td>T2</td>
<td>T1 T3 T4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I would recommend this strategy to others.</td>
<td>T2</td>
<td>T1 T3 T4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The strategy will be beneficial to the child.</td>
<td>T2</td>
<td>T1 T3 T4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Head Start lead teacher (T1) most often rated statements as *Agree*. This teacher conveyed the most positive attitude at meetings. When commenting about the success of the “morning message helper” job, she observed warmly that since having the job his “eye contact is different. He’s looking over at teachers (feeling) proud” (BSP Review 3/27/09). In discussing changes to the morning circle format, she commented “We’ll try anything that works!” (BSP Review 4/7/09). The program aide (T4) was generally positive but had the lowest level of participation in meetings and implementation due to her role in the classroom and her schedule.

*Attitudes Towards Professional Development*

Attitudes were measured using the *Professional Development Rating Scale* (Table 4.19). All four teachers were asked to rank order six statements about professional development.

**Table 4.19**

*Rank Order of Statements Regarding Professional Development by Teachers*

<table>
<thead>
<tr>
<th>Professional Development Rating Scale</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
</tr>
</thead>
<tbody>
<tr>
<td>When we got started, talking about the child’s behavior was helpful.</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>When we got started, talking about the possible strategies teachers could use was helpful.</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>As the weeks went along, meeting to talk about how the child was doing was helpful.</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>As the weeks went along, meeting to talk about how teachers were putting the BSP strategies into place was helpful.</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Seeing demonstrations of the BSP strategies was helpful.</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Being given materials to use in order to carry out the BSP strategies was helpful.</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>
development from most to least helpful and then to answer three open-ended questions.

As with other measures, teachers varied somewhat in their responses and in some cases their responses stood in sharp contrast. For example, the lead teacher (T1) found being given materials the most helpful (a rating of 1). The assistant teacher (T3) found this least helpful (rating: 6), and the special educator (T2) found this somewhat helpful (rating: 3). All of the teachers rated either talking about the child’s behavior or talking about strategies “when we got started” in the FBA/BSP process as either a one or two.

Most surprising to the researcher was the low rating received by statement five – seeing demonstrations - which received ratings of four, five, and six. Both of the two key teachers, the lead Head Start teacher and the special educator rated demonstration (coaching) at six. Three of the four teachers mentioned use of the timer or “If you hit you sit” as the part of the BSP that was most helpful to the child.

Responses to the open-ended questions are given below:

1. What part of the BSP (Behavior Support Plan) seemed to be most helpful to the child?
   - Timer and visuals. (T1)
   - The timer. (T2)
   - The BSP provides supports for the child. It is respectful and mindful of the child’s overall needs. It is helpful in looking at the social emotional and cognitive needs. (T3)
   - I believe the most helpful part of the BSP plan was between the “If you hit you sit” and giving him the job for morning message helper. (T4)

2. When carrying out the BSP, what was most helpful to you as a teacher?
   - Being supported by the other staff in the room. (T1)
• All being on the same track. (T2)

• It is most helpful when all involved are working together as a team – clarity and consistency are most needed. (T3)

• What was most helpful was giving C a job to do to make him feel useful, when giving him a certain responsibility kept him focused on following rules. “Super friends” pictures with him (in the picture) also gave him positive feedback of him being a good friend.” (T4)

3. What additional support might be helpful to you as a teacher?

• More administrative support (observations of child and ideas and materials.) (T1)

• More parent classroom interaction. For parents to see and reinforce behaviors in the classroom. (T3)

• Continued support and following up on BSP plans – what works and what does not work. (T3)

• Additional support that would be useful for me to make things easier would be if C’s parents could use the same techniques at home. They would be able to support methods we are using here in class to bring home to use in similar situations. (T4)

Four themes emerged from the written responses. First, responses confirmed earlier information regarding the teachers’ approval of the timer strategy. Second, it was of note that the only teacher to comment on strategies designed to teach prosocial behaviors was the program aide, the teacher with the least access to team discussions and the least involved in implementing the BSP. Third, three of four teachers described teaming and consistency as important. Fourth, two of the teachers brought up the
importance of working more closely with the family.

Summary of Question Four

Question Four focused on teacher attitudes towards behavior strategies and professional development supports. Through the use of rating scales and written responses, teachers indicated that they were generally positive about the Behavior Support Plan. There was no marked difference in acceptability of the three different types of strategies: prevention, teaching, and responding. In examining which kinds of strategies were actually implemented, it became clear that preventive strategies that could easily be incorporated were favored (morning message helper) rather than strategies that required restructuring the room or new classroom materials. It was also noted through observation that teachers were more likely to respond to inappropriate behaviors using negative consequences (timer) rather than responding to positive replacement behaviors (super friends awards).

In terms of professional development, teachers indicated that talking about behaviors and strategies at the beginning of the process was most helpful and that seeing demonstrations of under-implemented BSP strategies was least helpful.

Summary

This chapter presented the results of the study. First, it set a framework for the research questions by describing the functional behavior assessment process and findings and the development and components of the Behavior Support Plan. It then addressed the four research questions.

Question One had to do with teacher implementation. Based on the results from the study, three observations can be made. First, teachers partially implemented the Behavior Support Plan. Second, teachers more readily implemented those strategies that
were extensions of what they were already doing and that did not call for rearranging basic structures in the room and adding new materials. Third, teachers implemented strategies at very different frequency levels.

Question Two addressed the degree to which changes in child behavior were related to teacher implementation of the behavior support plan. Results indicated that the child did change behavior during the implementation of the BSP, noticeably decreasing in “aggressive” behaviors such as hitting and pushing, and noticeably increasing in positive social interactions with both children and adults. While no causal link can be made based on the information gathered during the study, there were two related behavior changes on the part of teachers. First, teachers gave clearer messages regarding classroom rules about hitting and consequences for breaking the rules. Second, teachers made more attempts to facilitate play with peers and increased their own positive interactions with the child.

Question Three was focused on the degree to which changes in teacher behavior were related to professional development support. Research results indicated that three of seven strategies targeted for coaching demonstration were implemented after coaching. Most of the implementation was the work of the lead Head Start teacher. There were several factors that might have contributed to non-implementation, including individual teacher differences in classroom roles, teacher/child relationships, and attitudes towards the child and BSP strategies; technical barriers regarding making BSP materials; unclear roles regarding implementation; and discomfort with some individualized strategies.

Question Four was focused on teacher attitudes towards behavior strategies and professional development supports. Teachers indicated that they were generally positive about the Behavior Support Plan. There was no marked difference in acceptability of the
three different types of strategies: prevention, teaching, and responding. In terms of professional development, teachers indicated that talking about behaviors and strategies was most helpful and that seeing demonstrations of BSP strategies was least helpful.

In the final chapter the results of the study will be discussed, as well as limitations of the study and directions for future research.
CHAPTER FIVE: DISCUSSION

Using an embedded case study design, this study focused on the behavior and attitudes of four members of an early childhood teaching team carrying out a Behavior Support Plan (BSP) in a Head Start classroom. The investigator examined the extent to which teachers implemented the BSP, the relationship between teacher behaviors and changes in child behaviors, the extent to which additional professional development support in the form of coaching improved teacher fidelity, and teacher views on the feasibility and value of the behavior change strategies they were asked to carry out, and to what extent professional development supports for teachers were considered helpful. These questions were based on a careful review of the literature that yielded four theoretical propositions: first, that teachers are likely to lack fidelity when carrying out behavior support plans in the classroom; second, that child behaviors are more likely to improve when teachers implement a behavior with fidelity; third, that the addition of professional development support is likely to improve teacher fidelity; and fourth, that to the extent that teachers judged behavior support plan strategies to be feasible, they would be more likely to carry out those strategies.

This final chapter presents a discussion of the research results in light of each of the four study questions and the theoretical propositions on which the questions were based. Where appropriate, it also includes a consideration of rival explanations that might better account for research results. Following the discussion of the findings related to each of the four questions, the study’s limitations are described, as well as implications for practice and future research.

Question One: Behavior Support Plan Implementation

Question One focused attention on the degree to which teachers implemented
specific behavioral support strategies that were part of a positive behavioral support plan and was based on the proposition that teachers are likely to lack fidelity when carrying out plans in the classroom. The proposition stemmed from several studies and articles in recent years that have focused on the role of the teacher in behavior management and concerns about teacher fidelity.

Duda et al. (2004) reported that when early childhood teachers were given support from behavior specialists and participated in the functional behavior assessment process, they partially carried out the behavior support plans for two children. The teachers were reported to selectively carry out the strategies that called for structural and environmental modifications (such as rearranging seating) but not individualized verbal strategies (such as offering praise). These authors questioned whether teachers simply “ignored the more exacting interactional components” (p. 154) and suggested that future research examine what kinds of strategies are implemented and what kinds of supports for teachers are the most efficient and beneficial. Scott et al. (2005) studied teachers’ selection patterns when they were offered an array of BSP strategies based on functional behavior assessment (FBA). In a series of case studies, the researchers found that teachers were more likely to select negative consequences over instructional strategies even when the instructional strategies were closely tied to the findings of the FBA.

Elsewhere, Dunlap et al. (2001) discussed the importance of building capacity in the schools, given the training needs associated with effective teacher use of positive behavioral supports and the “logistical challenges such as time, resources, personnel, and administrative issues” (p. 29). Practitioner fidelity issues related to behavioral supports were also described as problematic by Gable et al. (2001) and Strain and Joseph (2004).

Given the concerns regarding teacher fidelity documented in the literature, the
first research question of the study addressed implementation and teacher fidelity by examining which BSP strategies were carried out and how often those strategies were used (see Table 4.10). Those findings will be briefly summarized here, followed by a discussion of possible factors that may have influenced teachers’ decisions about which strategies to implement.

**Summary of Results Related to Strategies Implementation**

The findings from this study indicated that teachers did noticeably increase their overall use of behavior support strategies when the BSP was put into place, changing from an average of 1.75 strategies in use per hour during the FBA phase of the study to 5.17 times per hour during BSP implementation. Teachers also spent more time with the child, increasing the level of positive adult/child interactions from 5.75 times per hour to 12 times per hour (See Table 4.9). This was a marked change, considering that during some of the early FBA observations teachers repeatedly failed to greet the child at arrival and were much more likely to speak to him regarding inappropriate behaviors than engage him in other kinds of social interactions. On the first day of observation the child was acknowledged 15 times in response to negative behavior compared to only three times for positive behavior.

At the same time, the results also indicated that teachers did not adopt all of the strategies agreed to in the final BSP and over a four week period implemented only 59% of the strategies (10 of 17) (See Table 4.10). These findings are in keeping with Duda et al. (2004) and confirm one of the propositions underlying this study: that teachers carry out behavior support plans with only partial fidelity. An examination of which strategies were implemented and which were not suggested several factors that may be associated with teachers’ selection process.
Factors Related to Partial Implementation

Type of Strategy as a Factor

First, type of strategy (prevention, teaching, responding) was examined as a factor. Based on Duda et al.’s (2004) findings that structural strategies were more readily implemented than strategies requiring individualized verbal interactions, the researcher had anticipated that type of strategy would make a difference. In particular, it was expected that teachers would be more likely to implement those prevention strategies that could be built into the daily routine compared to strategies that required more nuanced teaching by providing individualized attention throughout the day. Further, based on Scott et al.’s (2004) findings that teachers were more likely to select negative consequences over instructional strategies, the researcher expected that responding strategies would be selected more often than teaching strategies. Results from the current study indicated that type of strategy did play a role, but in ways that were less straightforward than expected. Familiarity with strategies, teacher roles, and teacher attitudes appeared to play much a stronger part in determining which strategies were used. In the following sections, type of consequences, familiarity of strategies, and teacher differences including role in the classroom will be examined.

Negative consequences as a preferred strategy. While many aspects of the BSP appeared to be implemented without regard for type of strategy, there was one notable way in which type of strategy appeared to operate as a factor. This was the teachers’ selective use of negative consequences as a preferred responding strategy. Use of a timer and “If you hit you sit” was based on teachers’ revisions to the draft BSP. Originally, the response to hitting was based on the idea that hitting was communication and so the suggested response was designed to offer the child alternative communicative behavior
choice. In the final version, the response was altered to include a timer and use of the phrase, “If you hit you sit” for all occasions when the child hit. Teachers indicated that they felt they were more successful with being direct and felt that with this strategy they were “on the same page” (BSP Review Meeting, 3.27.09).

While teachers reported that use of the timer did not detract from the focus on replacement behavior and said they talked with the child about why he needed to sit during the time-out periods, on the three occasions when the timer strategy was observed teachers never asked the child what happened, what he had wanted, or why he needed to sit. Instead, teachers focused their attention on getting him to remain seated by offering him books and engaging him in conversation about unrelated topics, such as alphabet letters. (The one exception to this was a teacher reminding him to keep his hands to himself as he was returning to play.) Given that the Positive Behavior Support Model (PBS) describes behavior as communication and the Functional Behavior Assessment conducted for the current led to the hypothesis that the function of hitting was likely attention seeking, the Behavior Support Plan (BSP) directed teachers to work with the child to substitute appropriate attention-seeking behavior for hitting. This rarely took place, however; teachers were not heard to ask the child what he wanted at the time he hit and what he could do the next time that might work better, though teachers reported that they often talked with him about his behavior and alternative behavior while he was sitting with the timer (BSP Review, 5/6/09). In this sense, teachers were not reliable reporters of their own actions.

Nonuse of positive consequences. As previously indicated, teachers failed to carry out two of the strategies modeled during coaching that would have served to reinforce positive behavior. Reinforcing positive behavior is essential when supporting behavior
change, as it makes it more likely that prosocial replacement behavior will increase over time as the inappropriate behavior decreases. In this case, during meetings teachers spoke enthusiastically about using a sticker-award system for “super friends” behavior (prosocial behavior such as sharing and solving problems). They went into detail about what the awards would look like, where they could be kept in the room, and who would prepare them. Nonetheless, the awards were not made by the teachers and demonstration of their use by the researcher did not lead to their use. Teachers did occasionally use verbal praise as a consequence for positive behavior. These findings are in keeping with Scott et al. (2005) who noted teachers’ preference for consequences employing negative consequences.

**Familiarity as a Factor**

Scott, Liauspin, Nelson, and McIntyre (2005) found that teachers tended to use familiar strategies, even when given new ideas and strategies through collaborative behavior planning. Familiarity also appears to have been a factor in the current study. When familiar strategies are appropriate and effective, as was the case in this study, their use can be both beneficial to the child and lead to increased acceptance by the teaching team. In this case, several of the most often implemented strategies were those that were already in place at the start of BSP planning. One example was the strategy known as *facilitating play*. As the most frequently used strategy (seven times) and the only BSP strategy used by the assistant teacher (T3), teachers were able to continue using a familiar strategy and also expanded the strategy by attempting to include the child more often in games with peers, rather than simply playing with the child as a teacher-child dyad.

In a second example, one of the more frequently used prevention strategies (four times), offered the child the predictable job of message board helper at morning circle-
time. This was an extension of earlier sporadic efforts to capitalize on the child’s natural interest in being helpful. As with facilitating play, the familiar strategy of helper job was made more explicit and was more consistently put to use. (This particular strategy was also suggested by the parents during the FBA Interview, 3/20/09). Prior to BSP implementation, the child was observed repeatedly asking for a job while teachers ignored his requests, even though he was seated and attentive (BSP Observation # 1, 4/7/09). At other times, he was given jobs in order to distract him from disrupting the group. When questioned, the lead teacher (T1) indicated with some exasperation that sometimes she wasn’t sure when to give him a job – he asked so often - and so she sometimes ignored his requests even when he was compliant, especially if he had been noncompliant earlier in the day. This discussion led to the decision to use a job schedule that would be predictable for both the child and teachers (BSP Review Meeting, 4/7/09).

Overall, the use of familiar strategies worked well for teachers and for the child. Teachers liked them and found they were a natural fit. In addition, when teachers were more consistent and self-reflective in carrying out the two strategies named above, the child was more often engaged in positive peer interactions and improved his participation at circle-time.

Differences in Teacher Characteristics as a Factor

It appears from the data that the factor most related to differential strategy implementation was individual differences in teacher attitudes, roles, and relationships. Teachers carried out strategies with very different frequencies, and varied widely in which strategies they chose to implement. The lead Head Start teacher (T1) carried out the vast majority of prevention and teaching strategies (9 out of 10 and 9 out of 14, respectively) and was responsible for 68% of implementation. At the other end of the
spectrum, the program aide (T4) carried out none of the strategies during observation. This difference appeared, in large part, to be tied to early childhood teaching experience, teacher roles, and relationships. Each will be examined in the following sections.

Teacher education and experience. A brief Teacher Demographics Checklist was used to determine levels of experience and education of the teachers participating in the study. All the teachers reported having some training in Positive Behavior Supports. Years experience in the classroom and certifications varied. In terms of years of experience, both the lead teacher and the special educator reported more than ten years of teaching experience. It may be notable that the special educator, in conversation, reported that much of her teaching experience was with older students and that she was relatively new to preschool. Considering the importance of her role in the classroom, she was less engaged with the child and with implementation of the BSP than might have been expected. Pianta et al. (2005) reported that for teachers with B.A. degrees, those who had specialized training in early childhood were associated with higher quality classrooms. While noting small effect sizes for this factor, Pianta et al., nonetheless, suggested that knowledge of early childhood practices could make a difference in classroom quality.

Teacher roles. Some BSP implementation relied on teachers to actively include a strategy into their daily routines or to actively teach children new skills. Because of the nature of her duties in the classroom, responsibility for implementing teaching strategies naturally fell to the lead teacher. She planned lessons, led groups, and took charge of the overall classroom throughout the day. The assistant teacher, who implemented a single BSP strategy facilitating play) when on the playground was most available for adult/child interactions at that time. Otherwise, she was busy with classroom maintenance, such as checking in children at bus arrival, and personal care activities with children, such as
washing hands, toileting, and setting the table, and so was less available to carry out the BSP when in the classroom. These routines are standardized in the Head Start classroom, where practices regarding hand washing, toileting, and meals are prescribed by program mandates related to hygiene and nutrition. The support staff (assistant and aide) is typically responsible for this element of the program. At the same time, these classroom routines provide opportunities to teach social skills “in the moment”, such turn-taking, gaining attention from a peer, following directions, and cooperation. There were times when both the assistant teacher and the program aide could have incorporated select BSP strategies into their tasks when the focus child was nearby, but they did not.

The role of the special educator was directed at supporting the children with special needs, at times giving attention to and providing alternative activities for children who refused to join the group or who were disruptive, and at other times facilitating expanded play and learning for those same children. It would seem that because the focus child was classified as a child with special needs and was receiving full time special education services within the Head Start classroom, the special educator would have had a more active role in the BSP. As it was, she implemented only five different strategies representing 19% of overall implementation. For this teacher, her role provided her with opportunities that were not used. This may be due, in part, to the relationship she had with the focus child.

Teacher-child relationships and attitudes towards the BSP. Pianta et al. (2005), Peisner-Feinberg et al. (2001), and others have described relationships as important to classroom quality in early childhood programs. In this study, teachers had noticeably different relationships with the child, characterized by different kinds of interactions. In some ways, observation data suggested that, for the child, the setting changed when the
teachers did. The speech language pathologist asked lots of questions and made language
demands (more noncompliance was recorded on her visit days). At the same time, she
was very encouraging, introduced the focus child to motivating games, and praised
positive behavior. The lead teacher often invited the focus child to help her get projects
ready, was proactive in engaging him in conversation, and often attempted to settle him
into activities when he was roaming the classroom. The assistant teacher helped him
settle into games on the playground, offering to be his play partner and complimenting
his skills. The program aide sometimes greeted him when he approached groups of
children at play.

The special educator appeared to have a more strained relationship. During
observation, her contact with the focus child was limited. She reported that he could be
“set off” by greetings and she appeared purposefully cautious around him. He also
seemed avoidant of her, at times leaving play areas when he noticed her entering. For
example, on one occasion the special educator approached him saying, “You’re five
today!” He growled, pushed her, and said, “I’m gonna be 20” and walked away (BSP
Observation #6, 5/13/09).

Another view of teacher attitudes towards the child and the BSP was revealed in
discussions that took place during FBA/BSP planning meetings and BSP review
meetings. Teachers spoke about the child and the BSP in unique ways. The lead teacher
often talked about the child and the plan with a pragmatic, solution-based approach -
what was working and what needed more work. The assistant teacher spoke in terms of
teaming and consistency. The special educator spoke in terms of the child as the problem
and barriers to implementation. Her language about the child included negative terms
such as “provoked”, “upped the ante”, “found a new victim”, and “He’s playing games”.

216
This child-centered approach to behavior, in which the problem is thought to reside in the child rather than factors in the environment, contributes to a pessimistic outlook and makes it less likely that external factors that might support behavior change will be identified. Indeed, when discussing environmental factors over which teachers might exercise some control such as scheduling and grouping, the special educator frequently listed difficulties in terms of a lack of time and resources, and problems getting appliances to work, such as a camera and printer. She also voiced concerns about designing individualized supports for the child based on limited feasibility and potential unfairness to other children. This was surprising in that by definition, special education is based on individualizing program supports and adapting curriculum in order to meet children’s needs.

The attitudes revealed during FBA/BSP planning and implementation meetings uniquely reflected differential commitment to the behavior change project. The lead teacher (T1) typically sat close to the table, facing the researcher and actively making comments and asking questions. The assistant teacher (T3) sat with her chair pulled back from the table, with steady attention to the discussion and making clearly articulated comments when asked. The special educator (T2) usually engaged in multi-tasking, with a laptop or papers on her lap and her body turned slightly away from the conversation. When she was able to be present, the program aide (T4) sat at the table, interested and attentive.

*Teachers and Teaming.* In addition to teacher-child relationships, the roles and relationships between adults working on the classroom team had an impact on the implementation the BSP, especially in terms of team leadership and communication. The team had been together since midyear (December) when the special education joined the
class to replace a teacher who was transferred. Other team members had been together since September. During the process of the FBA and the BSP, teachers met and talked several times about their views regarding child behaviors and their expectations for the classroom as a whole. Teachers reported that it was the first time they had all talked together about the classroom’s structure (physical set-up, activity schedule, and expectations for children) since the arrival of the special educator. In fact, teachers reported that the structure of the classroom had changed over time as more children with special needs joined the class during the school year. As a result, what was reported to have been a fairly clear structure in September had become less clear over time, especially in terms of which areas of the class were “open” to children at various times of the day, whether or not children should be allowed to roam the room or choose alternative activities at circle-time, and how to respond to hitting.

The assistant teacher, in particular, reported with some relief that there was more consistency over the course of BSP implementation, especially in terms of consequences for hitting. She commented, “When we, as teachers, got more in sync and did not back down, he knew he had no other option. It’s nice if other things could be tightened up. We’re not going to get a second chance” (BSP Review, 4/21/09).

Another aspect of implementation associated with teaming and communication had to do with the degree to which each teacher took responsibility for individual strategies. For example, members of the team seemed to understand that the lead teacher would offer the focus child the message helper job each morning just before circle-time. In contrast, while teachers spoke enthusiastically about the visual schedule, the task of showing the picture schedule to the child before transitions was not assigned to a specific person, and it never became part of the routine.
Three of the four teachers commented in their written responses on the *Professional Development Rating Scale* that the most helpful part of the BSP to teachers was working on teaming. It appeared to the researcher that this work would need to be ongoing in order to achieve more complete implementation of the BSP. There clearly were times when teachers, in addition to the lead teacher, had opportunities to use praise, teacher talk, the solution cards, and other strategies and did not take advantage of those times. During the coaching week, the lead teacher briefly expressed to the researcher the hope that the other teachers would soon begin to use more of the strategies but made no attempts to remind them or assign tasks. It appeared that more work on teaming was needed including: gaining a better understanding of the agency’s expectations for the general education-special education co-teaching model; planning for more team discussion around expectations, classroom structure, and BSP implementation; and developing leadership and team management skills on the part of the lead teacher.

*Summary of Factors Related to BSP Implementation Levels*

The BSP was partially implemented, as had been predicted in Proposition One. What was not predicted, however, was the wide range of fidelity levels. Teachers were very different in the degree to which they carried out the plan. Several factors appeared important to BSP implementation and might account reasonably for some of the variation.

In particular, the teachers’ roles on the classroom team, their relationship with the child, and their relationship with each other appear to have been the strongest influence on BSP implementation. In this study, the teacher with the strongest role in planning and teaching also appeared to have the most well-developed and positive relationship with the child. She also carried out the majority of the BSP strategies, especially in prevention and
teaching, and was the most active in meetings. It may be that experience in early childhood was also a factor, given that the special education teacher, who might have played a stronger part in carrying out the plan due to her role as special educator and multiple opportunities, had a modest engagement in the plan, limited experience in early childhood, and a limited relationship with the child. Implementation might have increased across teachers and included more strategies had the lead Head Start teacher, in her capacity as lead teacher, or the special educator, in her capacity as teacher for the children with special needs, assigned team members specific responsibility for strategies implementation and monitored the BSP.

The quality of adult communication and the effectiveness of the team was also a factor, as this classroom of teachers did not team together to monitor and coordinate their actions with an eye on broadening implementation. Instead, each teacher appeared to have a set of strategies or strategy she was willing to implement on her own. This left each teacher to select from the BSP strategies on her own, with apparently little feedback from the rest of the team. Finally, type of strategy appeared to play a small role as it related to the use of response strategies for negative and positive behaviors. Overall, implementation appeared to be mostly based on role and opportunity, familiarity, and individual preference.

Question Two: The Relationship between Child and Teacher Behaviors

Question Two was focused on the degree to which changes in child behavior were related to teacher implementation of the behavior support plan. This question was based on a simple proposition that the child would change his behavior if the teachers changed theirs, a key element in behavior change programs. According to the research in applied behavior analysis, behavior is dependent on the following elements: antecedent stimuli,
consequences that either reinforce or decrease behavior, and the individual’s learning history (Lewis, et al., 2004). In this study, the BSP called on teachers to alter the antecedents and the consequences to inappropriate behavior and to teach new behaviors. As described in the functional behavior assessment, there were two main behaviors of concern: hitting and noncompliance. Following is a summary and discussion of the results of the study related to behavior change for the child and teachers.

**Hitting**

According to the results discussed in Chapter Four, the child did change his behavior to some extent during BSP implementation, as would be predicted by the underlying proposition. Simply put, overtime he hit less and played more. During several weeks of observations, two kinds of behaviors changed. First “aggressive” behaviors such as hitting and pushing decreased; second, as he hit less he began to use more appropriate replacement behaviors to gain attention, such as using children’s names, complimenting children, and engaging more often in simple cooperative games (See Table 4.11). Teachers attributed these changes to the use of the timer strategy for hitting. They reported that the focus child was keenly aware of the timer as a negative consequence, and sometimes placed his hands behind his back when another child was bothering him, presumably in order to avoid the timer consequence (BSP Meeting, 3/27/09). It was very likely that the timer strategy was effective in reducing hitting, especially when coupled with the clear and consistent message that hitting was not acceptable.

This fact requires some discussion, however, given that the teachers changed the way in which the time-out/timer strategy was delivered by providing the focus child with *more* attention after hitting, rather than removing attention. Given that the hypothesized
function of hitting was attention seeking, it might seem that receiving attention from the teacher, who sat and talked with the child about topics of interest immediately after hitting, would serve as a maintaining consequence such that hitting behavior would be reinforced. That was not the case. Hitting was not maintained and the use of the modified time-out appears to have contributed to a decrease in frequency. This may be attributable to two factors. First, based on the results from the Functional Behavior Assessment, the child appeared to be using hitting as a communication tool to gain attention from his peers, not from adults. Therefore, it may be hypothesized that when he was moved away from peers in order to start the time-out procedure, the presence of the less-preferred adult attention did not serve as a reinforcer that might lead to more hitting. Second, the timer appeared to serve as an aversive, a concrete symbol that the focus child would need to stop playing, roaming, and seeking peers in order to sit apart from the activities of the classroom. This was indicated by the focus child’s actions regarding the timer (ceasing hitting when teachers mention the timer, running from the teacher holding the timer, refusing to take out the timer when directed).

Other changes in both antecedent and consequence behaviors on the part of teachers and peers also likely contributed to changes in child behavior. First, though not a topic of discussion at teacher meetings, teachers dramatically increased their positive interactions with the child over the course of BSP observations, more than doubling the number of times they engaged him in conversation, gave him jobs, suggested activities, and facilitated play with other children. This was associated with an increase in engaged behavior and reduced roaming – the time when hitting most often occurred. In addition, the lead Head Start teacher taught the children, including the girl who was a frequent target of hitting, to follow the three-step response (say “stop”, turn, and walk away). As a
result, the peer response to hitting was more often disapproving and peer attention was more often removed by turning away immediately after hitting. This change in consequences was very different from earlier child responses, when the child being hit typically became agitated but remained nearby and the focus child was sometimes able to continue with multiple hits without adult imposed consequences.

An additional factor not related directly to teacher behavior but which may be associated with a decrease in hitting was the reduced presence of the two frequently targeted peers. Due to child absences, on several days the two peers most frequently targeted were not present to “trigger” hitting behavior (see Functional Behavior Assessment, Table 4.2). Because the focus child almost exclusively hit the same two peers, their absences coincided with a noticeable decrease in hitting on some days during both the FBA and the BSP phases. For example, on the fourth day of FBA observation when both targeted peers happened to be absent, hitting dropped from 11 incidents during a one-hour period the day before, to zero.

Also noteworthy, on the days when the frequently targeted peers were absent or when they were playing in different areas of the classroom, the focus child increasingly became interested in several other children, including those who had more typical social play skills. With these peers, physical attempts to gain attention, such as driving a plastic lawn mower into a little girl he’d been following on the playground, were often ignored. The focus child received minimal feedback, a very different response from the smiling, poking, or agitated attention he had received from the two peers with special needs who were frequently targeted for hitting. This little girl simply ignored him, ignored the lawnmower, and never turned around (BSP Observation # 2, 4/8/09).

At the same time this kind of inappropriate attention-seeking was being ignored,
the focus child engaged in more appropriate attention-seeking and brief play behavior, for example riding bikes with other children. Instances of teacher facilitated peer contact also increased, as when the focus child followed up on a pretend play scheme introduced by the speech language pathologist by approaching a group of children and announcing happily, “All right, we have ice cream!” (BSP Observation #5, 5/12/09). While these events, the use of the timer and clear spoken messages regarding “no hitting”, the absence of frequently targeted peers, ignoring of inappropriate behavior by peers, increased positive teacher interactions, and increased attempts at positive engagement with peers on the part of the focus child, does not indicate a causal relationship to decreased hitting, it may be hypothesized that a combination of strategies was associated with the decrease.

**Noncompliance**

As reported in Chapter Four, noncompliance remained stable and compliance slightly dropped over the course BSP implementation (See Table 4.11). Keeping in mind that a response was considered noncompliant when the focus child failed to acknowledge a spoken request or follow a direction given by a teacher, it became obvious to the researcher over time that measuring compliance and noncompliance was complicated by fluctuating levels of demands - including requests for language production (such as answering questions), and requests for behavioral compliance – including requests to come, sit, share, and participate. Some teachers asked more questions and made more behavioral requests than others, apparently related to interaction style as well as events taking place in the moment. In addition, some of the examples of noncompliance may have been related to deficits in language skills rather than refusals. The child may have often ignored comments and requests made by others if they did not relate to his interest and if the language demand appeared difficult (See comments related to language
development delays and preference for self-selected activities according to the IEP in Chapter Four). For example in a series of questions and directions given by the speech language pathologist during a speech therapy session, the focus child responded to very few demands (BSP Observation #5, 5/12/0).

Because the number of requests varied from day to day depending on which teachers and therapists were present in the room and whether the child was alone or with others, it made more sense to look at compliance in terms of participation. Participation was especially important to teachers at group circle-time, as noncompliance on the part of one child could have an impact on other children’s behavior. During FBA discussions, teachers indicated that they were most interested in addressing noncompliance around routine demands (sitting with the group, waiting in line, putting toys away). During the BSP planning process, teachers focused attention on morning circle-time, a time of day when the focus child often refused to join the group or left the group mid-activity to roam the classroom. As had been made clear in Chapter Four, teachers made two structural changes that greatly increased the child’s participation, such that in the last two weeks of tracking BSP implementation, teachers reported that the child remained at circle each day except for one. Teachers were very pleased with the improvements in compliance at morning circle-time, though they did not introduce any of the structural changes to the afternoon circle-time, despite suggestions to do so. In the afternoon, the child’s behavior remained a mix of compliance and noncompliance, depending on where he was seated for story and whether or not the teacher structured the circle-time in ways that were predictable and motivating.
There were two behaviors of concern reported: hitting and non-compliance. Regarding hitting, it seems likely that use of the time-out/timer consequence was associated with reducing hitting. In addition, other behavior strategies may have been contributed to some extent to the change in hitting behavior, including clear messages communicating disapproval, reduced attention and feedback due to absences of frequently targeted children and ignoring, additional support from teachers during play, and an increasing repertoire of replacement behaviors aimed at seeking attention from peers. Based on their comments focusing on use of the timer during meetings, teachers did not seem attentive to the range of changes that were taking place in the classroom environment that may have affected the child’s behavior. Instead they attributed the decrease in hitting to the use of the timer and child absences. In this way, opportunities to further assist with appropriate attention-seeking behavior were often ignored by the teaching staff, though not the speech language pathologist, who more often suggested prosocial alternatives to the focus child when he was engaged in inappropriate behavior.

It should also be noted that as hitting decreased, teasing in the form of name calling, taking objects, and making faces increased. While teasing is not considered a “prosocial” way to gain attention, for the focus child, teasing was an improvement over hitting – more tolerated by others and sometimes more effective in gaining sustained attention. Teasing behaviors were already part of the focus child’s behavior repertoire and as such were readily accessible as replacement behaviors. Aside from the lead teacher’s emphasis on using “Hi five” as a greeting, the classroom team did not teach the child new social entry skills, and it appears that he relied on what he knew in his repeated attempts to connect socially with his classmates. Given that both hitting and teasing
occupied the same functional category for the child – ways to get attention – teasing was an improvement in behavior, likely selected by the child in lieu of hitting and in the absence of other more appropriate behaviors.

Regarding non-compliance, when measuring noncompliance using the coding system that recorded the child’s responses to language demands and behavior demands together, noncompliance did not improve. When viewed based on participation and following directions at morning circle compliance did improve. Teachers did not, however, carry the strategies associated with improvements in behavior during the morning circle-time over to the afternoon.

*Changes in Child Behavior Related to Teacher Behavior*

Based on the findings, teachers altered both antecedents and consequences in ways that made it more likely for the child to decrease hitting and engage in new behavior, as suggested by the underlying proposition. Related to hitting, teachers implemented strategies to make consequences for hitting less attractive and at the same time increased efforts to facilitate social greetings and peer play as replacement behaviors for attention seeking. In addition, while compliance with requests for language (such as answering questions) and behavior (such as remaining seated) did not change overall, there was a noticeable improvement in participation in morning circle when structural changes were made. This may have been the consequence of at least some of the strategies teachers used to reduce unacceptable behaviors.

Somewhat surprisingly, despite their success at altering morning-circle participation, the teachers did not carry over structural changes to the afternoon. When asked, teachers reported that the afternoon story circle was less problematic because the focus child was interested in books. However, during two informal afternoon
observations, the focus child was noncompliant and left the group several times, in keeping with the “old” pattern of behavior previously demonstrated in the morning. Clearly, participating in the FBA and BSP process alone did not make teachers better observers or ensure carryover of strategies. Teachers might be amenable to additional data collection to obtain a more accurate picture of afternoon behavior and may be open to making changes in the future, but the impetus for these efforts most likely needs to come from outside the classroom, either through continuing consultation or agency level support and supervision. This is in keeping with research and practitioner experience indicating that on-going supports are needed for change to be sustained (CSEFEL, 2008; Smith, 2005; Smith & Fox, 2003).

Question Three: Teacher Behavior and Professional Development Support

This question was focused on the degree to which teachers’ implementation of the BSP would change when additional professional development support was provided, based on the proposition that professional development support improves teacher fidelity. This proposition appeared straightforward to the researcher, based on theory and research indicating that teachers benefitted from professional development that was practical, relevant to the classroom, and that resulted in improved student outcomes (Dunlap, et al., 2000; Guskey, 1987, 2002; Snyder & Wolfe, 2008). It seemed reasonable to expect that professional development delivered in the classroom that was highly related to student outcomes and that targeted specific skills and strategies would be more likely to result in changes in teachers’ behavior in ways that increased BSP implementation fidelity. The results of the study related to professional development, briefly summarized here, proved to be less straightforward than anticipated.
In brief, there were two different levels of professional development support offered. The first, referred to as *review*, consisted of reviewing child behavior and behavior change with teachers at BSP review meetings. The second level of support, referred to as *coaching*, consisted of identifying those strategies that were observed to be used by teachers less often despite opportunities, and then discussing those strategies at BSP review meetings and demonstrating the strategies in the classroom. It was assumed that once strategies at the “low implementation” level were highlighted through discussion and demonstration, their use would increase, leading to greater teacher fidelity in carrying out the BSP as a whole.

After the first two weeks of BSP implementation, seven strategies were observed being implemented. Ten strategies were not yet implemented by teachers and of those, seven were chosen for coaching (See Table 4.12, Table 4.13, and Table 4.14). The researcher was already concerned that the BSP had included too many strategies for teachers to incorporate into their repertoires; thus, rather than attempting to coach all ten non-implemented strategies, seven strategies were chosen for coaching. Of the seven, six were chosen based on the fact that they involved the use of props. The researcher assumed that those strategies that were associated with physical props, such as stickers and cards, would be the most concrete and salient to teachers. The seventh strategy, teacher talk, was a strategy already being informally used by the lead teacher (T1). The seven strategies chosen for coaching included two prevention strategies (clean-up job cards and a visual schedule), two teaching strategies (the addition of the scripted story, “I Play with My Friends”, and solution cards), and three responding strategies aimed at reinforcing prosocial behavior (super friends awards, a super friends poster, and teacher
Six of the seven coached strategies included props. The seventh strategy, teacher talk, was chosen because it had been an earlier focus of Positive Behavior Support training and was being informally used by at least one of the teachers (lead teacher).

Results indicated that implementation was increased for three of seven targeted strategies after coaching. As with the pre-coaching BSP phase, most of the implementation was the work of the lead Head Start teacher. There were several factors that might have contributed to non-implementation, including individual teacher differences, unclear roles (for example, it was not determined by the team who would present the visual schedule at transition times), and possible discomfort with individualized strategies that may give special treatment to select children (see special education teacher’s comments in previous sections).

**Teacher Roles and Individual Differences as Factors**

Based on research in the field of professional development, (Dunlap et al., 2000; Fox & Little, 2001; Showers, Joyce, and Bennett, 1987) the proposition underlying Question Three stated that if teachers were provided with effective additional professional development support they would improve teacher fidelity when carrying out the BSP. Findings indicated that this was not the case. During two post-coaching observations only three of the seven coached strategies were implemented and of those, two were used by the teacher who was the high implementer during pre-coaching. It seems more likely that factors other than the professional development had an influence. As noted earlier in Chapter Four, teacher roles and individual differences may be related to teachers’ use of BSP strategies.

**Teacher Roles**

First, in terms of teachers’ roles, it seems reasonable to assume that some of the
limited use and non-use of strategies could be accounted for by varying teacher roles on the classroom team, especially for the assistant teacher and program aide who had non-child related duties to carry out each day. At the same time, all the teachers had opportunities to implement strategies that were neglected. This is especially true for the special educator who was purportedly available to support the focus in terms of role and opportunity. For example, the use of an individualized visual schedule is a well regarded prevention strategy in the special education community (Bryan & Gast, 2000; Mesibov, Browder, & Kirkland, 2002) This strategy was familiar to the special education teacher prior to coaching and was reported to be favorably viewed according to conversations during BSP planning. Despite this, and despite being the person in the classroom who was directly responsible to assist children with special needs, the special educator did not implement the visual schedule strategy. Even after coaching, with the exception of the teacher talk strategy (saying something to another teacher for the benefit of instructing the child), she did not increase or broaden her implementation of the BSP.

Teacher Differences

In this study it appeared that both role definition and teacher differences (e.g., attitudes and relationships) were more salient factors than professional development support when accounting for high and low implementation of the BSP across teachers. More than 20 years ago Showers, Joyce, and Bennett summarized 30 years of research and classroom experiences and synthesized several consistent findings related to professional development for teachers (1987). Some of the findings related to teacher characteristics, including the idea that competent and confident teachers were more likely to benefit from professional development than their less competent and less confident colleagues, and that teachers described as flexible were more likely to incorporate new
methods into their teaching repertoires. Recently, Brownell et al. (2006) examined differential implementation of new instructional strategies across teachers and concluded that the role of teacher qualities (as described briefly here) made a significant impact on level of implementation. Findings from this case study of eight teachers indicated that there were notable differences between teachers considered to be “high adopters” and those who were “moderate” or “low adopters” (p. 176). These researchers described high adopters as those who “quickly incorporated new practices in their classrooms” (p. 176), moderate adopters as those who “used certain practices and ignored others” (p. 176), and low adopters as those who used very few strategies and who were more resistant during discussions about new strategies. Four qualities were identified that appeared to influence teachers’ level of adoption: knowledge of curriculum and pedagogy; knowledge and student-friendly beliefs about managing student behavior; student-focused views of instruction, and the ability to reflect on student learning.

The results of this present study suggest that being provided with materials and professional development support in the form of coaching - explanation and demonstration of select strategies - was not enough to for all teachers to adopt those strategies. The teachers who were low implementers prior to coaching did not adopt the coached strategies and continued to be low implementers post-coaching. (One exception to this was one instance of the special educator using teacher talk to help a child understand expectations on the playground). The lead Head Start teacher, who was the high implementer during pre-coaching, adopted two coached strategies and continued to be the high implementer after coaching.
Rival Explanations

Based on the proposition that adding professional development support in the form of coaching would increase the use of low-implementation strategies, the researcher had expected that the teaching staff as a whole would more readily implement those BSP strategies that were selected for coaching. This was not the case; instead one teacher (T1) adopted two of the seven modeled strategies, and another teacher (T2) used an additional modeled strategy on one occasion. Because of this, the researcher considered other explanations that might better account for the results. According to Yin (2003), “the simple or direct rival explanation would be that the observed outcomes were in fact the result of some other influences besides the intervention” (p. 112). For this study, it appears that other factors might account for the low level of implementation even after coaching; those factors were teacher roles and differences in teacher characteristics such as experience, training, and attitudes.

Roles. First, it is likely that the low implementation levels of the assistant teacher and program aide had to do with their classroom roles and more limited opportunity and responsibility for BSP implementation. The program aide in particular was less involved in teacher meetings and neither the assistant teacher nor the aide took responsibility for the Teachers’ Work Plan that was part of the final version of the BSP. It seemed clear during discussions that the Head Start teacher and the special education teacher had primary responsibility for the BSP and for classroom management overall. Because of this, low implementation by the two paraprofessionals was not surprising. At the same time, both of these support teachers had opportunities to occasionally use BSP strategies that were ignored. Without specific assignment, the program aide and assistant teacher were less likely to expand their roles to include BSP implementation, despite
opportunities to do so.

Teacher differences. Second, low implementation on the part of the special educator was not accounted for by classroom role, and it is likely that Brownell et al.’s 2006 findings regarding teacher qualities offers a more suitable explanation. While teacher qualities were not directly assessed in this study, there was some indication of differences in teacher attitudes towards the child and child behaviors, based on statements made at teachers’ review BSP review meetings. In particular, the special educator was less student-friendly and more pessimistic and negative in her statements about behavior management, less proactive in her use of strategies, implementing more response strategies than teaching and prevention strategies. She appeared to be less student-focused and reflective about student learning, and was more likely to blame the child. For example, rather then viewing the child’s inappropriate hitting behavior in terms of attention-seeking, a communicative attempt which could be shaped towards more appropriate forms of communication, she described his actions in negative language. The special educator also expressed more reservations about the BSP and about individualized instruction in general (one of the core tenets of special education), for example, expressing worries that special treatment in the form of a visual schedule and clean-up jobs for the focus child would not be fair to the rest of the class.

In contrast, the Head Start lead teacher was more proactive regarding the student and behavior management overall. She implemented the bulk of the prevention and teaching strategies and was more likely to engage the child before behaviors occurred. Not surprisingly, it was this teacher who added two strategies to her repertoire after coaching.

While relationships were not directly addressed in the Brownell et al. study
(2006), it is important to mention here that the quality of the adult-child relationship also appeared to be related to implementation levels in the present study. The lead teacher, who was also the high-adopter (to borrow Brownell et al.’s language), had frequent interactions with the focus child, giving him jobs to do and attempting to engage him proactively in learning activities. The special educator was a low-adopter and also had infrequent contact with the child. It may be that positive adult-child relationship is related to Brownell et al.’s description of high-adopters who were knowledgeable about teaching, student-focused, proactive in behavior management, and reflective about learning.

Summary of Changes in Teacher Behavior Related to Professional Development Support

Question Three focused on changes in teacher behavior related to professional development support. The empirically-based proposition that served as a foundation for this question stated that if teachers were provided with additional professional development support they would increase implementation of strategies and improve teacher fidelity. Findings indicated that this was not the case. Coaching did not make a difference in strategy implementation for three of the four teachers. The fourth teacher, the Head Start lead teacher, consistently accounted for most of the BSP implementation both before and after coaching. Therefore, it appears that two rival explanations might better account for implementation levels. The first rival explanation, that classroom role made a difference in BSP implementation, appears to better account for low implementation on the part of the assistant teacher and program aide and partially accounts for high implementation on the part of the lead teacher. The second rival explanation, that individual differences in teacher qualities made a difference in BSP implementation and that the teacher who was more proactive, student-focused, and
reflective was more likely to implement recommended strategies, appears to better account for the implementation levels of the special education and lead Head Start teacher.

Question Four: Teacher Attitudes

Question Four was focused on which strategies aimed at child behavior were considered by teachers to be important and feasible and which kinds of professional development supports were viewed by teachers as helpful? The first part of the question was based on previous research which had shown that to the extent that teachers judged behavior support plan strategies to be feasible, they would be more likely to carry out those strategies. Two studies in particular informed the current study. First, Boardman, Arguelles, Vaughn, Hughes and Klingner (2005) reported that teachers were less inclined to implement new research-based programs because of the ongoing demands on their time and attention. This was particularly true of teachers working with children with emotional behavior disorders. Time, lack of access to materials, classroom responsibilities, and the unique needs of students all contributed to less commitment to trying new ideas. Because of this, the researcher made a concerted effort to involve teachers in selecting BSP strategies that were considered feasible and important, some of which were already present in their teaching repertoires. In addition, the researcher provided materials when the teacher reported that they did not have time to work on BSP materials.

Second, Duda et al. (2004) found that even when teachers rated behavior strategies as feasible and appropriate, they were inconsistent in which strategies they chose to implement and which strategies were ignored. For this reason, the researcher in the current study offered additional professional development support in the form of
coaching for those strategies which were under-implemented, with the expectation that the addition of coaching would be associated with higher levels of implementation of selected strategies.

The second part of the question was related to teacher attitudes towards professional development. Research on effective professional development has indicated that, at the very least, several elements need to be in place for professional development to be successful. These include multiple opportunities to make connections between new ideas and current practice (Joyce, Showers, & Bennett, 1987), teacher communication (Joyce et al., 1987; US Department of Education, 1999), coaching (Boyle, Lamprianou, & Boyle, 2005; Clark & Stroud, 2002; Showers, Joyce, & Bennett, 1987; Showers & Joyce, 1996), and making connections between teacher behavior and student outcomes (Fishman, Marx, Best, & Tal, 2003; Guskey, 2002; Kennedy, 1999). Given the research suggesting that relating new ideas to current practice, teacher discussion, coaching, and relating teacher behavior to outcomes were all prerequisites for effective implementation, the current study as designed, included teachers in the functional behavior assessment and behavior support planning process, and offered discussion opportunities and coaching during implementation. The researcher was also interested in knowing which supports were considered more helpful by teachers and presented them with an assessment instrument that involved rank ordering of professional development supports in terms of preference, from most to least helpful. The assessment also asked for responses to open-ended questions in order to allow for new themes that might emerge related to professional development and the BSP.

Because Question Four addressed teacher attitudes related to two distinct areas, the behavior support plan and professional development, each will be discussed
Teacher Attitudes towards the Behavior Support Plan

Through the use of rating scales, teachers indicated that they were generally positive about the Behavior Support Plan. There was no marked difference in acceptability of the three different types of strategies: prevention, teaching, and responding. Based on the expectation that favorable attitudes would be associated with higher rates of implementation and given similar favorability ratings, the researcher predicted that the three kinds of strategies (Prevention, Teaching, and Responding) would be implemented to the same degree. Indeed, teachers did implement strategies in each of the three categories: three of six possible prevention strategies, four of six possible teaching strategies, and two of five possible responding strategies. This finding did not indicate, however, that teachers’ choices during BSP implementation were associated with favorable ratings, or that lower implementation was related to negative attitudes.

The Influence of Teacher Roles and Teacher Attitudes

As noted in earlier discussions, teacher roles and teacher attitudes appeared to be important as factors in strategy selection. With that in mind, and given that comparisons between strategies and types of strategies is not straightforward, given that the BSP strategies were not comprised of like-items, it cannot be concluded from this study that there is a relationship between teacher attitudes (as reported on the rating scales) and strategies implementation. In fact, strategy selection turned out to be an individualized process. Type of strategy, whether preventing, teaching or responding, did not appear to be an important consideration, whereas classroom role, familiarity with the strategy, teacher attitudes, and the quality of the adult-child relationship were important to the selection process. In the future it might be more fruitful to ask teachers to rate their
attitudes on specific strategies for which there was ready opportunity for implementation, 
given varying teacher roles and the nature of the strategy (that is, whether it could be a 
repeated strategy built into the schedule of activities or whether it was “incidental” based 
on passing events). It might also be helpful to have teachers become more self-reflective 
about their own contributions to the BSP by tracking the variety and frequency of the 
strategies they were using.

*Emphasis on Addressing the Most Concerning Behaviors*

Finally, as noted in Chapter Four and as might be expected given previous 
research findings, those BSP strategies that were closely associated with immediate 
changes in the most distressing child behaviors (hitting, leaving circle-time activities) 
were favored over those strategies that may have appeared less relevant, such as 
reinforcing friendship skills and improving social greetings. At the initial FBA meeting, 
all teachers reported being very concerned with hitting and disruptions at circle-time, 
whereas they did not report being as concerned about the focus child’s friendship and 
play skills. This was also evident in the discussions that took place during the BSP 
meetings, when teachers emphasized how well the time-out/timer and morning helper 
strategies were working, and in written comments where three out of four teachers named 
the timer as the strategy that was most helpful to the child. Only the program aide, whose 
participation in teacher discussions was limited, emphasized the importance of teaching 
prosocial behaviors in her written comments.

While it is understandable that teachers focused on problem behaviors first, 
especially because safety was involved, to the extent that teachers were focused on 
addressing the most concerning behaviors *in lieu of* teaching prosocial replacement skills, 
the child was less likely to demonstrate social competence in the future. Because gains in
social competence, along with improvements in problem behavior, is associated with long term success in school and in the community (CSEFEL, 2008; Shonkoff & Phillips, 2000), it is important for teachers to implement behavior plans in ways that lead to both fewer problem behaviors and more prosocial behaviors. In the current study, teachers needed more guidance in supporting the child’s positive attempts at communicating with his classmates. Though the focus child became less physical in attention-seeking behavior, many of his attempts were still inappropriate and still resulted in peer rejection (Teasing had increased as hitting decreased). Over the long term, this child will benefit from more support to learn appropriate social skills, including social greetings, social entry skills, cooperative behaviors, and appropriate social problem-solving techniques.

**Teacher Attitudes Towards Professional Development Supports**

When asked to rate professional development using the rating scale, teachers indicated that talking about behaviors and strategies at the beginning of the process was most helpful and that seeing demonstrations or coaching of under-implemented BSP strategies was least helpful. In keeping with research findings indicating that teachers valued professional development that directly involved them, it may be that teachers felt more actively included and available during the FBA conversations. FBA meetings were scheduled to allow teachers to set time aside from their usual responsibilities and actively share their ideas. Everyone had an opportunity to speak, and their ideas became part of the behavior plan. In contrast, during coaching teachers were asked to observe demonstrations of the strategies in which they had shown the least interest while also carrying out their typical classroom duties. In addition, teachers may have felt more impetus to see behavior change early in the FBA process due to the high level of hitting that was initially reported. It is possible that once the focus child’s inappropriate hitting
behavior was reduced to a tolerable level, there was less interest in adding the coached strategies to teachers’ repertoires, as teachers felt that the immediate problem had been addressed. In addition, teachers may have seen less direct value in using strategies to enhance social interaction and skills once hitting and leaving the circle-time had decreased.

The Importance of Relationships and Teaming

The importance of teamwork was identified by three of four teachers in their final review of the BSP. This was a theme that had already emerged in earlier meetings and comments, for example when teachers emphasized the need for communication and consistency and the lead teacher expressed a desire for more participation in the BSP from her colleagues. Also related to adult teaming, two teachers mentioned the importance of working more closely with the family. This emphasis was in keeping with guidelines for conducting team-based functional behavior assessments (Lucyshyn et al., 2002). Indeed, adult relationships and teaming may be worthwhile factors to examine in the future if teachers and families are to fully and effectively implement behavior support plans.

Summary Regarding Teacher Attitudes

The fourth and final question of the study addressed teachers’ attitudes regarding the BSP and professional development. While teachers were generally positive in their responses to the BSP when completing rating scales, some of the discussions during BSP meetings reflected more pessimism about feasibility of implementing the BSP, with time noted at the largest barrier. Once again, roles and relationships, as well as a strategy’s clear connection to the behaviors that were of most concern, appeared to be more important factors than type of strategy. In terms of which professional development
activities were considered helpful, teachers had a clear preference for discussion during the initial phase of planning rather than making materials or seeing demonstrations.

Limitations of the Study

As pointed out by Merriam (1988), the same “special features of case study research that provide for its selection (as a suitable research design) also present certain limitations” (p. 33). This was certainly true for the current study. These limitations include circumscribed generalizability, potential for researcher bias, and possible changes in participant behavior as a response to research. First, as a case study of a complex phenomenon taking place within a bounded system (Stake, 1995, 2005, as cited in Cresswell, 2007) the research findings served to describe a unique group of individuals operating in a unique context. With that in mind, it was only possible to describe events in terms of outcomes, factors, and relationships for four teachers embedded in a single case study at a particular Head Start agency. As with any case study, there has been no attempt to generalize findings to a larger population of teachers, or to make claims regarding professional development in general. That would be the province of experimental research. Instead, the researcher interpreted the findings in relation to the original propositions (or rival explanations, as appropriate).

Potential researcher bias was a second limitation. This is because, though case study inquiry yields in depth descriptions of a real-life phenomenon, readers and researchers cannot assume that even a finely detailed description includes all the factors influencing events. What looks like the whole story may be only a partial record, based on the data selected and recorded by the researcher as relevant to the study. Case study depends on the researcher’s ability to ethically and reasonably select what to record and to analyze and report what has been recorded. Cautionary statements about bias at the
outset of a project and due diligence on the part of the researcher throughout the study do not ensure an “accurate” account of a phenomenon. What they may ensure is that the reader becomes aware of potential bias when weighing the findings. Indeed, acknowledging the limitations of a study based on potential researcher bias is a defining feature of naturalistic study, which does not claim to set the researcher outside the events being recorded and which is based on the conceptualization that our understanding of all events is shaped by both participants and observers (Lincoln & Guba, 1981; Denzin, 2001).

Third, the presence of the researcher/consultant as observer might have caused teachers to alter their behavior (Isaac & Michael, 1997). Teachers were told at the start of the study that both child and teacher behaviors would be a focus. Teachers might have made assumptions about researcher expectations and worked to meet those expectations, or might have avoided trying out new teaching skills due to performance anxiety.

Implications for Practice

According to previous research and this study’s limited findings, adequate support for teachers is crucial if positive behavioral supports are to be offered with sufficient integrity and fidelity to effectively address children’s behavioral needs. The question has been, what is adequate in terms of benefitting teachers and what is feasible and affordable in terms of time and resources (Guskey, 2002, 2003). Based on the findings of this study, there are three implications in particular that are important to improving teacher practices.

The first has to do with how to support behavior change across teachers. Results from this and other studies (Gable et al., 2003; O’Neill et al, 2001; Quinn et al., 2001) have indicated that while participation in the functional behavior assessment and
behavior planning process was valued by teachers, participation alone did not lead to full implementation of behavior support strategies. Merely identifying challenging behaviors and successfully implementing strategies aimed at reducing those “red flag” behaviors that are troubling to others does not necessarily lead to improved social competence, more cooperative behaviors, and school success. In addition to “managing” behavior, more teachers will need to have a deeper understanding of child development and will need to understand the importance of fostering social competence along with managing problem behaviors.

Based on the results of this study, simply showing teachers what to do is not enough. Rather, teachers need more information about the importance of teaching prosocial skills and more time to reflect on their own behaviors as they relate to the child. Certainly, this is likely to be an easier task for those teachers who already possess some of the characteristics of Brownell et al.’s “high adopters” (2006), including self-reflection, flexibility, content knowledge, and student-friendly classroom management style. For this study, the lead teacher occupied a role that provided her with the responsibility and the opportunity to carry out much of the behavior support plan. In addition, she had a good relationship with the child and was very willing to adopt new strategies. She was the classroom “high adopter”. For the other teachers, the “moderate” and “low” adopters who were less available, less proactive, and more focused on the child as the “problem”, individualized coaching and feedback regarding their own teaching performance may be not only helpful, but necessary if change is to take place. This requires a level of supportive supervision not typically found in Head Start, but which may be available long term if it is built into a relationship-based supervision model.
This leads to the second implication for practice which has to do with teaming and leadership. Clearly, sitting at the table together for discussion was not enough to coordinate teachers’ ongoing efforts towards behavior change. The early childhood community stresses the importance of teaming (Dinnebeil et al., 2008) but does not necessarily give teachers the skills and authority needed to work effectively as a team. In keeping with the emphasis on the value of collaboration and respect for individual styles frequently promoted in the early childhood community (Dinnebeil et al., 2008), each team member in this study spoke respectfully of the others and most appeared to understand their roles and duties in relation to the mechanics of the classroom. At the same time, the team was less effective than it might have been because it operated with almost no central management and apparently had no system to talk about assisting children with social skills developing social skills, and did not monitor outcomes. The lead teacher would have benefitted from training related to leadership, goal-directed planning, and supervision and accountability at the classroom-level. This might have helped to assure that preparations were completed at the start of the BSP phase and that implementation was coordinated. The Head Start agency who hosted this study had already recognized the need for additional training of lead teachers as classroom managers. This had been discussed earlier in the year when supervisors observed that several teams lacked coordination and follow through regarding behavior plan implementation.

The third implication for practice has to with relationships. It became clear through this study that the relationship each teacher had with the child could contribute to effectively carrying out the behavior support plan or could detract from its effectiveness. It also appeared that the teacher with the most positive relationship with the child was
also the teacher who was the most proactive about implementing the plan on behalf of the child. The importance of relationships has been described by Pianta et al. (2006) and is the foundation of the preschool positive behavior support model (Center on the Social Emotional Foundations for Early Learning, 2008; Fox et al., 2003). Early childhood programs that are attempting to implement the positive behavior support model would be wise to emphasize relationships - the “bottom of the pyramid” - (Fox et al., 2003) as the foundation of their efforts. Knowing that many programs are interested in marshalling their energies and resources for those children at the “top of the pyramid” who demonstrate the most challenging behavior, an emphasis on relationships and supportive environments continues to be the key to both promoting social competence and reducing problem behavior (M. L. Hemmeter, personal communication, December 3, 2007).

Future Research

Two clear avenues for future research are suggested by the findings of this case study. First, related to concerns about partial implementation and classroom leadership, it will be important to investigate more closely the role that agency, site, and classroom level supervision might play in effective classroom-based BSP implementation. Both the preschool and school-age models of positive behavior support are based on agency-wide change encompassing all classrooms, all teachers, and all children (Center on the Social Emotional Foundations for Early Learning, 2008; Technical Assistance Center on Positive Behavioral Supports and Intervention, 2008). Practical knowledge about how supervision might support necessary changes in teacher behaviors and attitudes leading to effectively implementation of Positive Behavior Support is needed.

For example, as a part of the current study, a member of the supervisory team was consulted during initial BSP planning in order to lend support for structural changes
including rearranging furniture to create distinct learning centers in the classroom and reduce running in open areas. Such changes would have brought the classroom into alignment with the agency’s curriculum and assured environmental changes important to the carrying out the BSP (Duda et al., 2004); however, there was no clear direction given to classroom teachers about what was required, perhaps because it seemed to be a classroom rather than an agency issue. In any case, the suggested changes were not included in the final BSP and were not implemented. A better understanding of how school supervision models can be enhanced to effectively organize and monitor the quality of BSP implementation in the classroom could help to close the “research-to-practice gap” in positive behavior support (Quinn et al., 2001, p. 265).

A second avenue for future research has to do with differences in teacher characteristics including attitudes and relationships. In this study, teacher characteristics, in particular receptivity to new strategies and the quality of the adult-child relationships appeared to be important factors. In discussing their conception of high-moderate-low adopter status, Brownell et al. (2006) suggested that differentially providing professional development support to teachers might address the gaps in effective practice from teacher to teacher and classroom to classroom. Certainly in the present study it became clear that coaching could have been tailored to give individual teachers practice in the specific strategies that were most available to them, given their respective roles on the classroom team. Future research should focus on how to better account for teacher characteristics when planning professional development in order to systematically offer more effective and individualized supports.
REFERENCES


20 U.S.C. 141434 C.F.R. §300.324(a)(2)(i)).


http://challengingbehavior.fmhi.usf.edu/joseph.pdf


Lavigne, J., Arend, R., Rosenbaum, D., Binns, H., Christoffel, K., & Gibbons, R.


Lavigne, J., Arend, R., Rosenbaum, D., Binns, H., Christoffel, K., & Gibbons, R.


school-wide system of effective behavioral support: Investigation of a school-
wide social skills training program and contextual interventions. *School

Leyser, Y., & Tappendorf, K. (2001). Are attitudes and practices regarding
mainstreaming changing? A case study in two rural school districts. *Education,
121*(4), 751-761.

support: Maximizing student success in schools. In R.B. Rutherford, Jr., M.M.
Quinn, & S.R. Mathur (Eds.). *Handbook of Research in Emotional and
Behavioral Disorders*, (pp. 487-50). New York: Guilford Press.

Publications.

Brookes Publishing.

Brookes Publishing.

LoCasale-Crouch, J., Konold, T, Pianta, R., Howes, C., Burchinal, M., Bryant, D.,
profiles in state-funded pre-kindergarten programs and associations with teacher,
program, and classroom characteristics. *Early Childhood Research Quarterly, 22*,


Technical Assistance Center on Social Emotional Intervention for Young Children [TACSEI]. [formerly: Center for Evidence-Based Practice: Young Children with Challenging Behavior]. Available at Web site: http://www.challengingbehavior.org/about.htm


APPENDIX A
Teacher Demographic Checklist

Name:

Gender:

__ F
__ M

Attended Positive Behavioral Support (PBS) Training

__ Y
__ N

Level of Education:

__ High School Diploma or Equivalency Diploma
__ Child Development Associate (CDA) Certificate
__ Two year college degree
__ Four year college degree
__ Masters level college degree

Years Teaching Experience

(note grade levels – early childhood, elementary, Jr-Sr high, adult)

__ 1-2
__ 2-5
__ 5-10
__ More than 10
APPENDIX B

FUNCTIONAL ASSESSMENT INTERVIEW FORM

Child’s Name:
Age:
Date of Interview:
Interviewer:
Respondents:

A. DESCRIBE THE BEHAVIOR(S)

1. What are the behaviors of concern? For each, define how it is performed, how often it occurs per day, week, or month, how long it lasts when it occurs, and the intensity in which it occurs (low, medium, high).

2. Which of the behaviors occur together (e.g., occur at the same time; occur in a predictable “chain”; occur in response to the same situation)?

<table>
<thead>
<tr>
<th>Behavior</th>
<th>How often</th>
<th>How long</th>
<th>Intensity (L-M-H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. IDENTIFY EVENTS THAT MAY AFFECT THE BEHAVIOR(S)

1. What medications does the child take, and how do you believe these may affect his/her behavior?
   a. behavior?

2. What medical complication (if any) does the child experience that may affect his/her behavior (e.g., asthma, allergies, rashes, sinus infections, seizures)?
3. Describe the *sleep cycles* of the child and the extent to which these cycles may affect his/her behavior.

4. Describe the *eating routines and diet* of the child and the extent to which these routines may affect his/her behavior.

5. Describe the extent to which you believe activities that occur during the day are predictable for your child. To what extent does the child know what he/she will be doing and what will occur during the day (e.g., when to get up, when to eat breakfast, when to play outside)? How does your child know this?

6. What choices does the child get to make each day (e.g., food, toys, activities)?

**C. DEFINE EVENTS AND SITUATIONS THAT MAY TRIGGER BEHAVIOR(S)**

1. Time of Day: *When* are the behaviors most and least likely to happen?

2. Settings: *Where* are the behaviors most and least likely to happen?

3. Social Control: *With whom* are the behaviors most and least likely to happen?

4. Activity: *What* activities are most and least likely to produce the behaviors?
5. What one thing could you do that would most likely make the challenging behavior occur?

6. What one thing could you do to make sure the challenging behavior did not occur?

D. IDENTIFY THE “FUNCTION” OF THE CHALLENGING BEHAVIOR(S) AND HOW WELL IT WORKS FOR THE CHILD.

1. Think of each of the behaviors listed in Section A, and define the function(s) you believe the behavior serves for the child (i.e., what does he/she get and/or avoid by doing the behavior?)

<table>
<thead>
<tr>
<th>Behavior</th>
<th>What does he/she get OR avoid?</th>
<th>How often does behavior result in a “payoff”?</th>
<th>How much delay is there between behavior &amp; payoff?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. HOW DOES THE CHILD COMMUNICATE?

1. What are the general expressive communication strategies used by or available to the child (e.g., vocal speech, signs/gestures, communication books/boards, electronic devices, etc.)? How consistently are the strategies used?

2. If your child is trying to tell you something or show you something and you don't understand, what will your child do? (repeat the action or vocalization? modify the action or vocalization?)

With regard to receptive communication ability:

1. Does the child follow verbal requests or instructions? If so, approximately how many? (List, if only a few).

2. Is the child able to imitate someone demonstrating how to do a task or play with a toy?
3. Does the child respond to sign language or gestures? If so, approximately how many? (List, if only a few).

4. Does the child respond to yes/no questions (when asked “do you want…”)?

**F. EXPLAIN CHILD’S PREFERENCES AND PREVIOUS BEHAVIOR INTERVENTIONS**

Describe the things that your child really enjoys. For example, what makes him/her happy? What might someone do or provide that makes your child happy?

What kinds of things have you or your child's care providers done to try and change the challenging behaviors?

**G. DEVELOP SUMMARY STATEMENTS FOR EACH MAJOR TRIGGER AND/OR CONSEQUENCE**

<table>
<thead>
<tr>
<th></th>
<th>distant setting</th>
<th>immediate trigger</th>
<th>behavior</th>
<th>maintaining consequence</th>
<th>function</th>
<th>replacement behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX C

**LEARNING ENVIRONMENT ASSESSMENT**  
(Revised) Early Childhood Settings

**Physical Setting:** Classroom  
**Length of Program Day:** five hours (2 x 2.5)  
**Date:** 5/13/09  
**Age Range:** four year old class  
**Staff (teachers, assistant teachers, volunteers, etc.):** four  
**Completed by:** C. Gleason

<table>
<thead>
<tr>
<th>Physical Environment</th>
</tr>
</thead>
</table>
| 1. Learning centers have clear boundaries (physical). | Y N  
| 2. Classroom arranged such that all children can move easily around the room. | Y N  
| 3. Classroom is arranged such that there are no large, wide open spaces to run. | Y N  
| 4. Number and variety of activity centers are adequate to support the number of children (at least 4 centers; 1 center per every 4 children). | Y N  
| 5. Materials in all centers adequate to support the number of children in areas. | Y N  
| 6. Materials/centers are prepared before children arrive at the center or activity. | Y N  
| 7. Classroom rules are posted, illustrated with visual for each rule, limited in number (3-5), and stated positively (all have to be true to score a “yes”). |  

**Physical Environment Subtotal “Y”** 6 1

Adapted from *Teaching Pyramid Observation Tool for Preschool Classrooms, Hemmeter & Fox, 2007*

<table>
<thead>
<tr>
<th>Social Environment</th>
</tr>
</thead>
</table>
| 1. Daily schedule is balanced between child and teacher directed activities. | Y N  
| 2. Transitions are well organized with minimal wait time. | Y N  
| 3. Teachers engage children in conversation. | Y N  
| 4. Directive language used by teachers is limited & is appropriate to tasks. | Y N  
| 5. Children are generally engaged in group activities. | Y N  
| 6. Teachers are engaged with children (play, reading, conversation) throughout the day. | Y N  
| 7. Teachers use positive language (“Walking feet”, not, “Don’t run”). | Y N  
| 8. Teachers give group and individualized directions. | Y N  
| 9. Teachers use problem solving behavior, such as affirming child feelings and suggesting possible choices, when reminding children of behavior consequences. | Y N  
| 10. Teachers refer to a variety of emotions during the day. | Y N  
| 11. Emotions/feelings vocabulary is displayed in pictures & words and in books. | Y N  
| 12. There is a comfortable and inviting “quiet area” where children can settle down. | Y N  
| 13. Children’s work is displayed at their level. | Y N  

**Social Environment Subtotal “Y”** 10 3

**Physical and Social Environment Total “Y”** 16 4

Adapted from *Teaching Pyramid Observation Tool for Preschool Classrooms, Hemmeter & Fox, 2007*

**Is there a classroom-wide token system (sticker charts, for example)? Describe:** None
LEARNING ENVIRONMENT ASSESSMENT  
(Revised) Early Childhood Settings

**Physical Setting:** Classroom

**Length of Program Day:** five hours (2 x 2.5)

**Date:** 3/27/09

**Age Range:** four year old class

**Staff (teachers, assistant teachers, volunteers, etc.):** four

**Completed by:** C. Gleason

### Physical Environment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Learning centers have clear boundaries (physical).</td>
</tr>
<tr>
<td>2</td>
<td>Classroom arranged such that all children can move easily around the room.</td>
</tr>
<tr>
<td>3</td>
<td>Classroom is arranged such that there are no large, wide open spaces to run.</td>
</tr>
<tr>
<td>4</td>
<td>Number and variety of activity centers are adequate to support the number of children (at least 4 centers; 1 center per every 4 children).</td>
</tr>
<tr>
<td>5</td>
<td>Materials in all centers adequate to support the number of children in areas.</td>
</tr>
<tr>
<td>6</td>
<td>Materials/centers are prepared before children arrive at the center or activity.</td>
</tr>
<tr>
<td>7</td>
<td>Classroom rules are posted, illustrated with visual for each rule, limited in number (3-5),</td>
</tr>
</tbody>
</table>

**Physical Environment Subtotal “Y”** 5 2

Adapted from *Teaching Pyramid Observation Tool for Preschool Classrooms, Hemmeter & Fox, 2007*

### Social Environment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Daily schedule is balanced between child and teacher directed activities.</td>
</tr>
<tr>
<td>2</td>
<td>Transitions are well organized with minimal wait time.</td>
</tr>
<tr>
<td>3</td>
<td>Teachers engage children in conversation.</td>
</tr>
<tr>
<td>4</td>
<td>Directive language used by teachers is limited &amp; is appropriate to tasks.</td>
</tr>
<tr>
<td>5</td>
<td>Children are generally engaged in group activities.</td>
</tr>
<tr>
<td>6</td>
<td>Teachers are engaged with children (play, reading, conversation) throughout the day.</td>
</tr>
<tr>
<td>7</td>
<td>Teachers use positive language (“Walking feet”, not, “Don’t run”).</td>
</tr>
<tr>
<td>8</td>
<td>Teachers give group and individualized directions.</td>
</tr>
<tr>
<td>9</td>
<td>Teachers use problem solving behavior, such as affirming child feelings and suggesting possible choices, when reminding children of behavior consequences.</td>
</tr>
<tr>
<td>10</td>
<td>Teachers refer to a variety of emotions during the day.</td>
</tr>
<tr>
<td>11</td>
<td>Emotions/feelings vocabulary is displayed in pictures &amp; words and in books.</td>
</tr>
<tr>
<td>12</td>
<td>There is a comfortable and inviting “quiet area” where children can settle down.</td>
</tr>
<tr>
<td>13</td>
<td>Children’s work is displayed at their level.</td>
</tr>
</tbody>
</table>

**Social Environment Subtotal “Y”** 8 5

#### Physical and Social Environment Total “Y” 13 7

Adapted from *Teaching Pyramid Observation Tool for Preschool Classrooms, Hemmeter & Fox, 2007*

Is there a classroom-wide token system (sticker charts, for example)? Describe: None
Motivation Assessment Scale

by V. Mark Durand and Daniel Crimmins

Name ____________________________  Today's Date __/__/___
Rater ____________________________

Behavior Description ____________________________

Setting Description ____________________________

GENERAL INSTRUCTIONS

Name: Enter the name of the individual with the problem behavior.
Rater: Enter the name of the person filling out the scale or being interviewed.

Behavior Description:
Enter a specific behavior (e.g., hit his head) rather than a more general description of the individual's behavior (e.g., he gets upset).

Setting Description:
Specify the situation where the behavior is a problem (e.g., at home after dinner, during lunch, during one-on-one teaching).

INSTRUCTIONS TO RATERS

Rate each of the 16 items on the following two pages by circling the number that corresponds to about how often the individual engages in the behavior indicated, in the setting which has been selected.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Would the behavior occur continuously, over and over, if this person was left alone for long periods of time? (For example, several hours.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>2. Does the behavior occur following a request to perform a difficult task?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>3. Does the behavior seem to occur in response to your talking to other persons in the room?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>4. Does the behavior ever occur to get a toy, food or activity that this person has been told that he or she can't have?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5. Would the behavior occur repeatedly, in the same way, for very long periods of time, if no one was around? (For example, rocking back and forth for over an hour.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>6. Does the behavior occur when any request is made of this person?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>7. Does the behavior occur whenever you stop attending to this person?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>8. Does the behavior occur when you take away a favorite toy, food, or activity?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>ITEM</td>
<td>RESPONSE</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>9. Does it appear to you that this person enjoys performing the behavior? (It feels, tastes, looks, smells, and/or sounds pleasing.)</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>10. Does this person seem to do the behavior to upset or annoy you when you are trying to get him or her to do what you ask?</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>11. Does this person seem to do the behavior to upset or annoy you when you are not paying attention to him or her? (For example, if you are sitting in a separate room, interacting with another person.)</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>12. Does the behavior stop occurring shortly after you give this person the toy, food or activity he or she has requested?</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>13. When the behavior is occurring, does this person seem calm and unaware of anything else going on around him or her?</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>14. Does the behavior stop occurring shortly after (one to five minutes) you stop working or making demands of this person?</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>15. Does this person seem to do the behavior to get you to spend some time with him or her?</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>16. Does this behavior seem to occur when this person has been told that he or she can't do something he or she had wanted to do?</td>
<td>0 1 2 3 4 5 6</td>
</tr>
</tbody>
</table>
SCORING

Transfer the numeric Response for each item to the blanks below. Scores are organized into columns by type of motivation. Total each column of numbers (Total Score) and calculate the Mean Score (Total Score divided by 4) for each motivation. Determine the Relative Ranking for each motivation by assigning the number "1" to the motivation with the highest Mean Score, "2" to the motivation with the second-highest Mean Score, and so forth.

<table>
<thead>
<tr>
<th>Sensory</th>
<th>Escape</th>
<th>Attention</th>
<th>Tangible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. _____</td>
<td>2. _____</td>
<td>3. _____</td>
<td>4. _____</td>
</tr>
<tr>
<td>5. _____</td>
<td>6. _____</td>
<td>7. _____</td>
<td>8. _____</td>
</tr>
</tbody>
</table>

Total Score = _____  _____  _____  _____
Mean Score = _____  _____  _____  _____
Relative Ranking = _____  _____  _____  _____
## APPENDIX E

### PKBS-2

**Preschool and Kindergarten Behavior Scales**

**Summary/Response Form**

**Second Edition**

<table>
<thead>
<tr>
<th>Section</th>
<th>Child Information</th>
<th>Section</th>
<th>Reviewer Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child's Name</td>
<td>__________________</td>
<td>Rated By</td>
<td>__________________</td>
</tr>
<tr>
<td>Age: ____ Years ____ Months Sex: M ☐ F ☐</td>
<td>Relationship to Child</td>
<td>Date Completed</td>
<td>__________________</td>
</tr>
<tr>
<td>Is this child receiving services in a school or in a school-related program (e.g., Preschool, Head Start)? ____ Yes ____ No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, what is the name of the school and the program?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If this child has a disability, please list the special education service category or classification:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please rate the child on each of the items on pages 2 and 3 of this rating form. Ratings should be based on your observations of this child's behavior **during the past 3 months**. The rating points after each item appear in the following format:

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Never**

If the child does not exhibit a specified behavior, or if you have not had an opportunity to observe it, circle 0, which indicates Never.

**Rarely**

If the child exhibits a specified behavior or characteristic, but only very infrequently, circle 1, which indicates Rarely.

**Sometimes**

If the child occasionally exhibits a specified behavior characteristic, circle 2, which indicates Sometimes.

**Often**

If the child frequently exhibits a specified behavior or characteristic, circle 3, which indicates Often.

Please complete all items and do not circle between numbers.

© 2002 by PRO-ED, Inc.

Additional copies of this form (#10362) may be purchased from

PRO-ED, 8700 Shadel Creek Blvd., Austin, TX 78757-6099
800/697-3362, Fax 800/397-7653, www.proedinc.com

---

293
<table>
<thead>
<tr>
<th>Social Skills Scale</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Works or plays independently</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. is cooperative</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Smiles and laughs with other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Plays with several different children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Tries to understand another child's behavior (&quot;Why are you crying?&quot;)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Is accepted and liked by other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Follows instructions from adults</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Attempts new tasks before asking for help</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Makes friends easily</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Shows self-control</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. Is invited by other children to play</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12. Uses free time in an acceptable way</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13. Is able to separate from parent without extreme distress</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. Participates in family or classroom discussions</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. Asks for help from adults when needed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Sits and listens when stories are being read</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. Stands up for other children's rights (&quot;That's his!&quot;)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18. Adapts well to different environments</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19. Has skills or abilities that are admired by peers</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. Comforts other children who are upset</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21. Invites other children to play</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22. Cleans up his or her messes when asked</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. Follows rules</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24. Seeks comfort from an adult when hurt</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25. Shares toys and other belongings</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26. Stands up for his or her rights</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>27. Apologizes for accidental behavior that may upset others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>28. Gives in or compromises with peers when appropriate</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>29. Accepts decisions made by adults</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>30. Takes turns with toys and other objects</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>31. Is confident in social situations</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>32. Responds appropriately when corrected</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>33. Is sensitive to adult problems (&quot;Are you sad?&quot;)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>34. Shows affection for other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Problem Behavior Scale</td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>1. Acts impulsively without thinking</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Becomes sick when upset or afraid</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Teases or makes fun of other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Does not respond to affection from others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Clings to parent or caregiver</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Makes noises that annoy others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Has temper outbursts or tantrums</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Wants all the attention</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Is anxious or tense</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Will not share</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. Is physically aggressive (hits, kicks, pushes)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12. Avoids playing with other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13. Yells or screams when angry</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. Takes things away from other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. Has difficulty concentrating or staying on task</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Disobeys rules</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. Has problems making friends</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18. Is afraid or fearful</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19. Must have his or her own way</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. Is overly active—unable to sit still</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21. Seeks revenge against others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22. Defies parent, teacher, or caregiver</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. Complains of aches, pain, or sickness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24. Resists going to preschool or day care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25. Is restless and fidgety</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26. Calls people names</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>27. Is difficult to comfort when upset</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>28. Withdraws from the company of others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>29. Bullies or intimidates other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>30. Seems unhappy or depressed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>31. Has unpredictable behavior</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>32. Is jealous of other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>33. Acts younger than his or her age</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>34. Destroys things that belong to others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>35. Is moody or temperamental</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>36. Is overly sensitive to criticism or scolding</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>37. Whines or complains</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>38. Gets taken advantage of by other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>39. Disrupts ongoing activities</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>40. Tells lies</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>41. Is easily provoked—has a &quot;short fuse&quot;</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>42. Bothers and annoys other children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

PKBS-2 3
Please use the following space to provide any additional information about this child that you believe would be useful for understanding his or her behavior.

<table>
<thead>
<tr>
<th>Norm tables used:</th>
<th>Home Rater</th>
<th>School Rater</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PKBS-2 Scales</th>
<th>Raw Score</th>
<th>Standard Score</th>
<th>Percentile Rank</th>
<th>Risk Level (if indicated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Skills Subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Cooperation (SC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Interaction (INT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Independence (IND)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Score (sum of subscale standard scores)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Standard Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Behavior Subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalizing Problems (EP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalizing Problems (IP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Score (sum of subscale standard scores)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Standard Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Higher Social Skills scores indicate greater levels of social adjustment.
Higher Problem Behavior scores indicate greater levels of problem behavior.
All standard scores are based on a normative mean of 100 and a standard deviation of 15.

PKBS-2
# APPENDIX F

## Behavior Support Plan (BSP)

### ACCEPTABILITY RATING FORM

Directions: For each of the questions below, circle the response (1-5) that fits best.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How clear is your understanding of the Behavior Support Plan (BSP)?</td>
<td>Not at all clear</td>
<td>Somewhat clear</td>
<td>Not Sure</td>
<td>Clear</td>
<td>Very clear</td>
</tr>
<tr>
<td>2. How acceptable do you find the BSP?</td>
<td>Not at all acceptable</td>
<td>Somewhat acceptable</td>
<td>Not Sure</td>
<td>Acceptable</td>
<td>Very acceptable</td>
</tr>
<tr>
<td>3. How confident are you that the BSP will be effective?</td>
<td>Not at all confident</td>
<td>Somewhat confident</td>
<td>Not Sure</td>
<td>Confident</td>
<td>Very confident</td>
</tr>
<tr>
<td>4. How willing are you to carry out this BSP?</td>
<td>Not at all willing</td>
<td>Somewhat willing</td>
<td>Not Sure</td>
<td>Willing</td>
<td>Very willing</td>
</tr>
<tr>
<td>5. How realistic in terms of time and resources do you think the BSP is?</td>
<td>Not at all realistic</td>
<td>Somewhat realistic</td>
<td>Not Sure</td>
<td>Realistic</td>
<td>Very realistic</td>
</tr>
<tr>
<td>6. Do you think there might be advantages in following the BSP?</td>
<td>Very few advantages</td>
<td>A few advantages</td>
<td>Not Sure</td>
<td>Several advantages</td>
<td>Many advantages</td>
</tr>
<tr>
<td>7. How much time will be needed each day for you to carry out this BSP?</td>
<td>Definitely too much time</td>
<td>It might take too much time</td>
<td>Not Sure</td>
<td>Fairly reasonable amount of time</td>
<td>Very reasonable amount of time</td>
</tr>
<tr>
<td>8. How likely is the BSP to make substantial changes in behavior over the long run?</td>
<td>Not at all likely</td>
<td>Somewhat likely</td>
<td>Not Sure</td>
<td>Likely</td>
<td>Very likely</td>
</tr>
</tbody>
</table>

*Adapted from Lane & Beebe-Frankenberger, 2004; based on T. M. Reimers, and D. P. Wacker (1988). ‘Parents’ Ratings of the Acceptability of Behavioral Treatment Recommendations Made in an Outpatient Clinic: A Preliminary Analysis of the Influence of Treatment Effectiveness.’ Behavior Disorders, 14, 7-15.*
## APPENDIX G

### BEHAVIOR STRATEGY RATING SCALE

The purpose of this scale is to gather information that will aid in the selection of behavior strategies. Circle the number which best describes your agreement or disagreement with each statement.

<table>
<thead>
<tr>
<th>Strategy:</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The strategy should prove effective in changing child’s behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. The strategy is consistent with strategies I have used before.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. The strategy is a fair way to handle this child’s behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. The strategy is a good way to address this child’s behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. The strategy makes a lot of sense to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. There are better ways to handle this child’s behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. The strategy will not have negative side effects for the child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. The strategy will not have a negative impact on the class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. I would recommend this strategy to others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10 The strategy will be beneficial to the child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

APPENDIX H

The purpose of this scale is to gather information concerning which supports are perceived as helpful to teachers implementing a behavior support plan for a child with challenging behaviors. Rank all six statements below from 1 to 6 by labeling the most helpful item at #1 and the least helpful item as #6. Then answer the three questions.

<table>
<thead>
<tr>
<th>Professional Development Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>When we got started, talking about the child’s behavior was helpful.</td>
</tr>
<tr>
<td>When we got started, talking about the possible strategies teachers could use was helpful.</td>
</tr>
<tr>
<td>As the weeks went along, meeting to talk about how the child was doing was helpful.</td>
</tr>
<tr>
<td>As the weeks went along, meeting to talk about how teachers were putting the BSP strategies into place was helpful.</td>
</tr>
<tr>
<td>Seeing demonstrations of the BSP strategies was helpful.</td>
</tr>
<tr>
<td>Being given materials to use in order to carry out the BSP strategies was helpful.</td>
</tr>
</tbody>
</table>

What part of the BSP (Behavior Support Plan) seemed to be most helpful to the child?

When carrying out the BSP, what was most helpful to you as a teacher?

What additional support might be helpful to you as a teacher?