Developing Character:
The Learning for Life Early Childhood Integrated
Academic and Character Development Program
Foundational Research Base

October 13, 2014
Executive Summary

Young children with emotional regulation problems may also have issues with self-regulation and academic learning (e.g., Blair, 2002; Raver & Knitze, 2002). Multiple studies suggest that poor emotional control and understanding also relate to lower levels of school readiness (e.g., Denham et al., 2012a, 2012b). Character education or social-emotional programs in early childhood seek to address these issues.

This paper summarizes the foundational research base for Learning for Life’s Early Childhood Integrated Academic and Character Development program. Specifically, this paper describes the research behind character education programs in early childhood, research supporting use of specific program components and instructional strategies, and research on the importance of ideal implementation.

Learning for Life offers an integrated, research-based character education program

Learning for Life provides early childhood students with instruction in nine character education topics, such as personal safety and persistence. Research suggests character education instruction positively benefits prekindergarten students. For example, researchers find that students who participate in character education programs have greater social readiness for school (e.g., Allen, 2009; Ashdown & Bernard, 2012), better emotional regulation (e.g., Bierman et al., 2008), and greater academic performance (e.g., Webster-Stratton, Reid, & Stoolmiller, 2008). Additionally, instruction in specific topic areas, such as personal safety and persistence, can increase knowledge, academic, and social-emotional outcomes (e.g., Berhenke, Miller, Brown, Seifer, & Dickstein, 2011; Mokrova, O’Brien, Calkins, Leerkes, & Marcovitch, 2013; Nemerofsky, Carran, & Rosenberg, 1994).

Learning for Life uses research-based instructional strategies and collaborative approaches

Learning for Life utilizes explicit instructional techniques, active learning opportunities, and small group time. It emphasizes mastery goals and works to involve parents in instruction. Multiple studies emphasize the importance of providing explicit instruction and active learning opportunities in character education (e.g., Ashdown & Bernard, 2012; Berkowitz & Grych, 2000). Small group time and a focus on mastery goals are also important, potentially leading to greater academic engagement (Carlton & Winsler, 1998; Wasik, 2008) and higher student motivation (Carlton & Winsler, 1998). Finally, parental involvement in early childhood classrooms can support students’ academic success (e.g., Miedel & Reynolds, 1999; Wurtele et al., 1992).

Working toward ideal character education implementation

To realize the greatest possible outcomes, schools should understand factors associated with ideal program implementation. Based on available research, there are three best practices for implementation in early childhood settings:

1. Schools should implement programs as intended, with some room for flexibility.
2. Schools should embrace character education as an ongoing, whole school initiative.
3. Parents and teachers must work together to be positive role models for early childhood students.
Summary

Character education and social-emotional programs during early childhood can positively support students’ social and academic readiness. Learning for Life aims to positively influence student outcomes by providing all students with a strong foundation for future social and academic success.
Acknowledgements

I am grateful for all of the time and support provided by Mr. Marty Walsh at Learning for Life. I am also greatly appreciative of Learning for Life’s commitment to research and interest in students’ physical, psychological, and academic welfare. I would also like to thank my colleagues at Magnolia Consulting, LLC for their support on this foundational research paper, especially Dr. Stephanie Baird Wilkerson and Dr. deKoven Pelton.

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# Table of Contents

Introduction .................................................................................................................................................. 1

Learning for Life offers an integrated, research-based character education program in early childhood ........................................................................................................................................ 3

Learning for Life uses research-based instructional strategies and collaborative approaches ..... 6

Working toward ideal character education implementation ................................................................. 10

Conclusion ............................................................................................................................................... 12

References ............................................................................................................................................. 14

Appendix. Range of effect sizes by research topic area .................................................................... 19

Notes ..................................................................................................................................................... 21
Introduction

As Mrs. Hutcherson called out to her, Annie looked away, still upset over a failed attempt to build a block castle. Her teacher grew more frustrated, because Annie always seemed to let her emotions get the best of her. Mrs. Hutcherson shook her head and thought to herself, “Is Annie ready for school?”

Emotion and cognition are highly interrelated. Students with emotional difficulties may also experience more cognitive problems, such as poor attention and memory (Blair, 2002). Similarly, students with anti-social behavior tend to be less interactive in class activities and less accepted by their peers. In preschool, these students might receive less academic support from teachers. As a result, in later years these students may show less interest in academics, lower levels of learning, and lower attendance (Raver & Knitze, 2002). Studies show that a lack of emotional regulation or understanding predicts poor cognitive and academic outcomes.

Researchers who have examined associations between early social behaviors and school readiness have found that poor emotional skills at a young age can place students at an academic disadvantage. Studies show that:

- Aggressive prekindergarten students have lower levels of adjustment in prekindergarten and kindergarten, and lower academic success (Denham et al., 2012b).¹
- Students at risk for social-emotional problems have lower academic performance, poorer relationships with teachers, poorer school adjustment, greater anger, fewer cooperative behaviors, and greater anxious and withdrawn behavior compared to more socially competent peers (Denham et al., 2012a).²
- Students with anti-social and behavior issues are more likely to have academic problems and to experience grade retention. Later in life, they are at greater risk of delinquency and dropping out of school (Alexander, Entwisle, & Horsey, 1997; Dombek & Connor, 2012; Raver & Knitze, 2002).³⁴
- By contrast, higher levels of social-emotional understanding and social skills in prekindergarten predict greater social competence and school readiness in prekindergarten, greater school adjustment during prekindergarten and kindergarten, greater attention in kindergarten, higher academic readiness in kindergarten, a lower likelihood of repeating kindergarten, and higher first grade academic performance (Denham, Way, Kalb, Warren-Khot, & Bassett, 2013; Rhoades, Warren, Domitrovich, & Greenberg, 2011; Winsler et al., 2012; Ziv, 2013).⁵⁶⁷⁸

Given the strong association between social-emotional understanding and school readiness, it becomes important to seek strategies for nurturing young students’ social-emotional awareness and understanding.

One potential method for promoting children’s social-emotional knowledge and skills is through character education. Berkowitz (2002) defines character as

…a complex psychological concept. It entails the capacity to think about right and wrong, experience moral emotions (guilt, empathy, compassion), engage in
moral behaviors (sharing, donating to charity, telling the truth), believe in moral goods, demonstrate an enduring tendency to act with honesty, altruism, responsibility, and other characteristics that support moral functioning. (pp. 48-49)

Character education programs that serve to build student social-emotional and moral skills offer one way to potentially prepare students for social and academic situations.

This foundational paper presents research underlying Learning for Life’s Early Childhood Integrated Academic and Character Development program, which offers lessons in several character topics including:

• Respect
• Responsibility
• Honesty/Trust
• Caring/Fairness
• Perseverance
• Self-discipline
• Courage
• Citizenship
• Life skills (e.g., fire safety, personal safety)

Learning for Life’s Early Childhood program includes 58 lessons (each approximately 45–60 minutes). Students learn concepts through explicit instruction, whole and small group discussions, reflection, and hands-on activities. The program also includes take-home activities for each lesson to reinforce concepts at home, student recognition stickers for completing lessons, and opportunities for teacher training.

This foundational research paper reflects existing research related to Learning for Life’s Early Childhood program components. The following sections detail research behind character education and social-emotional programs in early childhood; provide supporting research underlying several of Learning for Life’s program components, instructional strategies, and collaborative approaches; and describe three research-based best practices for ideal implementation of character education programs in early childhood. Throughout the paper, endnotes offer additional background on studies, including design, analyses, and effect sizes.
Learning for Life offers an integrated, research-based character education program in early childhood

Learning for Life offers a research-based program for early childhood students, educators, and parents. The program includes a wide array of character education topics and lessons. The following section details current research on the effectiveness of early childhood character education programs and the importance of education in two topic areas, personal safety and perseverance.

Effectiveness of character education programs in early childhood

Multi-study reviews find character education and social-emotional programs can positively benefit prekindergarten students. Studies suggest that students who participate in character education or social-emotional programs experience overall positive effects, higher social skills, more positive social interactions, and less aggressive and violent behavior compared to students who do not participate. Studies also suggest programs are more effective for prekindergarten students compared to students in older age groups (Beelman, Pfingsten, & Lösel, 1994; Durlak & Wells, 1997; Hahn et al., 2007; Lösel & Beelman, 2003).

In addition to findings from multi-study reviews, an examination of individual studies provides added insight into specific outcomes. For example, multiple studies suggest participation in character education or social-emotional programs in early childhood predicts the following student and classroom outcomes:

• greater social readiness for school (e.g., greater social-emotional competence, greater social skills, greater perspective-taking ability) (Allen, 2009; Ashdown & Bernard, 2012; Bierman et al., 2008; Brigman, Lane, Lane, Lawrence, & Switzer, 1999; Domitrovich, Cortes, & Greenberg, 2007; McMahon, Washburn, Felix, Yakin, & Childrey, 2000; Pickens, 2009; Stefan & Micela, 2013; Webster-Stratton, Reid, & Stoomiller, 2008),
• lower levels of aggression and fewer problem behaviors (Bierman et al., 2008; McMahon et al., 2000; Pickens, 2009; Stefan & Micela, 2013),
• less social withdrawal (Domitrovich et al., 2007),
• more effective problem solving (Stefan & Micela, 2013; Webster-Stratton et al., 2008),
• greater student engagement and on-task behavior (Bierman et al., 2008; Brigman et al. 1999),
• better listening skills (Brigman et al., 1999), and
• more positive classroom environments (McMahon et al., 2000; Webster-Stratton et al., 2008)

Thus, early childhood character education programs can effectively prepare students socially, academically, and cognitively for the school environment.

A closer look at two topic areas

Within character education programs, there are potential benefits of instruction in specific topic areas, such as personal safety and perseverance or resilience.

Teaching Personal Safety Skills

Reviews of the literature suggest that early childhood personal safety programs targeting abuse prevention positively influence student outcomes. Specifically, studies find that when students participate in abuse prevention programs (compared to non-participation), students have greater abuse prevention knowledge, including awareness of inappropriate touch, who to contact regarding abuse, and awareness resources. Additionally, studies report greater effects of participation for students in early childhood compared to students from older age groups (e.g., Davis & Gidycz, 2000; Nemerofsky et al., 1994; Ratto & Bogat, 1990; Sarno & Wurtele, 1997; Rispens, Aleman, & Goudena, 1997; Wurtele, Kast, & Melzer, 1992; Wurtele & Owens, 1997).

Educating on Perseverance and Resilience

Teaching other life skills, such as perseverance, can help promote resiliency in early childhood (e.g., Janas & Nabors, 2000). Perseverance (i.e., persistence) relates to important outcomes later in life. For example, researchers find that students with greater persistence at age three have higher language and math performance in kindergarten (Mokrova et al., 2013). Furthermore, studies suggest greater persistence at the beginning of kindergarten relates to lower levels of hyperactivity, greater social and interpersonal competence, greater on-task behavior, and higher academic performance in kindergarten (e.g., Berhenke, Miller, Brown, Seifer, & Dickstein, 2011).

Summary

Overall, research suggests that character education and social-emotional programs in early childhood promote children’s social-emotional and school readiness. Within character education programs, education in various life skills, such as personal safety and persistence, can build student knowledge and support long-term social and academic benefits.
LEARNING FOR LIFE’S EARLY CHILDHOOD PROGRAM INCLUDES SEVERAL CHARACTER EDUCATION TOPICS

Learning for Life’s Early Childhood program addresses nine core character education topics and subtopics including:

- Respect (e.g., respecting diverse cultures, classroom manners)
- Responsibility (e.g., decision-making, understanding needs versus wants)
- Honesty/Trust (e.g., importance of being truthful, do not cheat)
- Caring/Fairness (e.g., having empathy, sharing)
- Perseverance (e.g., never giving up, comfort with making mistakes)
- Self-discipline (e.g., managing anger, coping)
- Courage (e.g., standing up for others, bravery)
- Citizenship (e.g., learning about community, appreciating the American flag)
- Life Skills (e.g., abuse prevention and personal safety, eating healthy)

In the Life Skills and Honesty/Trust topic areas, teachers spend time discussing personal safety and abuse prevention through various activities and resources. One activity is a short video, Play it Safe, that uses a puppet game show format to educate children about four rules of personal safety (e.g., saying “no” if you feel uncomfortable, telling a parent or trusted adult before going anywhere). The program also provides a Parent’s Guide, “How to Protect Your Children from Child Abuse” and provides take-home activities that encourage families to review the four personal safety rules with their children.

Under the Perseverance topic, students learn about persistence through various activities encouraging them to never give up and to be comfortable making mistakes. For example, students practice walking with a book on their head and stacking blocks into a tall tower. When students experience difficulty or failure, they are encouraged to avoid frustration and to keep persevering. In another lesson, students have discussions about why it is okay to make mistakes and are encouraged to be supportive of their peers when they make mistakes during a game.
Learning for Life uses research-based instructional strategies and collaborative approaches

Throughout the program, Learning for Life incorporates a variety of research-based instructional strategies and collaborative approaches to support student learning. These include: explicit instruction, active learning, small group activities and discussion, mastery-oriented learning, and parental involvement. The following section describes extant research behind these strategies and approaches.

Explicit character education

“Schools cannot assume that the language, concepts, behaviors, and skills of good character are written into the genetic code; learned at home, from television, or in the neighborhood; or absorbed through the invisible hand of the general curriculum. Like arithmetic, the teaching of character values such as ‘responsibility’ and ‘respect’ must be purposeful and direct. Students should see and hear the words, learn their meanings, identify appropriate behaviors, and practice and apply the values.” (p. 19, Brooks & Kann, 1993)

Active learning in character education

Character and social-emotional education should provide students with opportunities for active and experiential learning (Anderson, 2000). Active learning opportunities can help students to learn through discovery instead of being told how something works (Berkowitz & Grych, 2000), can support students in autonomy and independence (Berkowitz & Grych, 2000), and can offer time for students to build confidence and apply what they learn (Janas & Nabors, 2000).

Small group activities and discussion in classes

Small group activities and discussion provide teachers with unique opportunities to discuss concepts with fewer students (Berkowitz & Grych, 2000). Such activities lead to several benefits including:

• more positive teacher-student interactions (e.g., asking questions, receiving feedback),
• more chances for students to improve language development through close interactions with peers and teachers,
• opportunities for students to be engaged and interested in small group discussions,
• chances for teachers to differentiate or tailor instruction to meet student needs, and
• situations where teachers can informally assess students and acquire a better understanding of student knowledge (Carlton & Winsler, 1998; Wasik, 2008).

Mastery-oriented learning in classrooms

According to achievement goal theory (e.g., Urdan & Schoenfelder, 2006), students are motivated to achieve through mastery or performance goals. When students have mastery goals, they are concerned with learning and self-improvement. When students have performance goals, they are preoccupied with achievement and social comparison. To realize positive outcomes, teachers should strive for mastery goals by offering challenging tasks, recognizing students for improvement and individual achievement (versus social comparison), and giving students opportunities for independence and choice (Urdan & Schoenfelder, 2006).

Achievement goal theory is relevant to prekindergarten classrooms because recent studies suggest that preschool students differ in their motivations for learning, with 50 to 75 percent of students having mastery learning goals and the remaining possessing performance goals (Bustamante, 2014; Smiley & Dweck, 1994). In studies specific to prekindergarten classrooms, researchers continue to emphasize the basic tenants of achievement goal theory (e.g., Urdan & Schoenfelder, 2006). Specifically, teachers should use rewards infrequently and focus more on effort or improvement, instead of social comparison, to increase children’s’ intrinsic motivation (i.e., interest in learning for the sake of learning) (Carlton & Winsler, 1998). Like adults, prekindergarten students with mastery orientations show interest in challenges and have greater achievement, whereas performance-oriented students show greater motivation for easier tasks (Smiley & Dweck, 1994; Turner & Johnson, 2003). For example, when encountering a difficult task, prekindergarten students with a performance orientation are more likely to feel pessimistic and unsure of their ability (Smiley & Dweck, 1994).

Parental involvement in education

Parents have a profound impact on their child’s emotional, character, and academic development. Research suggests that different parenting characteristics relate to children’s character traits (e.g., How do parents respond to their children? Do parents model positive behaviors?) (Berkowitz, 2002). Parental characteristics, such as positive and supportive parent-child relationships, also predict important academic and motivational outcomes, such as mastery goal orientations (Turner & Johnson, 2000).
In addition to benefits of positive parent-child relationships, greater parent involvement in prekindergarten classrooms can also make a difference. Research suggests that greater prekindergarten parental involvement in schools predicts higher academic achievement through Grade 8, a lower likelihood of grade retention, and better prekindergarten outcomes (e.g., greater social skills, fewer behavior problems, better student-teacher relationships) (Miedel & Reynolds, 1999; Powell, Son, File, & San Juan, 2010; Reynolds, Mavrogenes, Bezrucko, & Hagemann, 1996; Serpell & Mashburn, 2012). As another example, research by Miedel and Reynolds (1999) suggests that prekindergarten parents who participate in classrooms on a weekly or more frequent basis have children who are 38% less likely to repeat a grade. Similarly, parents who participate in six or more classroom activities have children who are 39% less likely to repeat a grade.

Greater parental involvement not only benefits early childhood classrooms, but might also enhance character education and personal safety program outcomes. Ongoing home-to-classroom connections can build parent-teacher relationships and parental awareness of the programs (e.g., Cohen, 2006). For example, Wurtele et al. (1992) suggests parental involvement in a prekindergarten abuse prevention program predicts greater knowledge gains for students who learn from parents and teachers, compared to students who learn only from parents or only from teachers. Another benefit of incorporating home-to-school connections might involve higher parental involvement. Webster-Stratton et al. (2008) gave parents homework on their child’s social-emotional curriculum and found parents who were less involved before the program became more involved. Furthermore, parents who were already involved became slightly more involved in the classroom (Webster-Stratton et al., 2008). This positive cycle of greater parental involvement might contribute to other positive effects.

**Summary**

Research suggests providing time for explicit instruction, active learning, and small group discussions is important and linked to positive outcomes. An emphasis on student effort or improvement can help foster intrinsic motivation and academic success. Finally, by involving parents, teachers can enhance student outcomes and potentially improve communication.
LEARNING FOR LIFE’S EARLY CHILDHOOD PROGRAM INCLUDES A VARIETY OF INSTRUCTIONAL STRATEGIES AND TECHNIQUES

Learning for Life’s Early Childhood program uses several different instructional techniques including:

1) Explicit instruction- Students receive explicit instruction in character traits, with multiple examples and activities for each trait. For example, in one of the lessons on courage, students discuss what courage means and read a story about Pocahontas. After the study, students discuss several of Pochahontas’s behaviors and how she was courageous.

2) Active learning opportunities- After some instruction, students receive multiple opportunities to explore topics individually, allowing for varied ways to interact with content. For example, in a lesson on sharing, students discuss sharing and play several games to illustrate the concept (e.g., creating a sharing wreath).

3) Small group activities and discussion- Many of the Learning for Life lessons can be taught in small or large groups, providing teachers with additional opportunities to assess student learning and understanding. For example, in a lesson on self-control, teachers can discuss the tale of the Rabbit and Squirrel in small groups.

4) Mastery-oriented learning- Learning for Life recognizes students for individual effort and mastery of concepts throughout the program. Teachers display a recognition chart, and students receive a sticker when they complete lessons in a topic area. For example, after completing the four lessons, “Being a Good Worker,” “Sharing,” “Generosity,” and “Community,” students receive a Helping sticker.

5) Involving parents- Learning for Life includes family/home activities for all 58 lessons. Each activity helps to reinforce daily lesson concepts at home. For example, after a lesson on “Good Friends,” parents and children discuss what it means to be friendly compared to unfriendly and work together on a recipe for “friendship soup.” The program also includes a parent’s guide to protecting children from abuse, an introduction to the Play it Safe video, and a Play it Safe brochure with additional information for parents.
Working toward ideal character education implementation

Studies and reviews of character education and social-emotional programs regularly emphasize the importance of quality implementation (e.g., Bajovic, Rizzo, & Engemann, 2009; Berkowitz & Bier, 2004; Bulach, 2002; Durlak & DuPre, 2008). In programs with significant and positive outcomes, researchers report high levels of program implementation (e.g., greater character education implementation in elementary schools linked to greater academic achievement; Benninga, Berkowitz, Kuehn, & Smith, 2003). By contrast, when researchers find mixed or negative effects of character education programs, they often cite poor implementation as a potential explanatory factor (e.g., Hanson, Dietsch, & Zheng, 2012; Social and Character Development Research Consortium, 2010).

Based on available research, there are three best practices for ideal implementation of character education programs in early childhood:

**BEST PRACTICE #1**
Schools should implement programs as intended, with some room for flexibility.

When implementing a character education program, schools should use the program as developers intended (Berkowitz & Bier, 2004; Burton, 2008). A review of 33 different character education programs suggests that character education positively benefits students when implemented as suggested by developers (Berkowitz & Bier, 2005). However, character education programs should also allow for some flexibility in implementation so that teachers can adjust the program to meet student needs (Burton, 2008).

**BEST PRACTICE #2**
Schools should embrace character education as an ongoing, whole-school initiative.

Character education should be an ongoing, whole school initiative, with an underlying understanding that effects might not be seen immediately (Anderson, 2000; Berkowitz, 2005). As part of the initiative, schools should set the expectation that everyone at the school, including school staff, will possess and model good character (Berkowitz & Bier, 2004, 2005; Brooks & Kann, 1993; Burton, 2008). Preschools might also utilize different types of displays and activities to support whole school implementation, such as displays of character education topics and visuals highlighting monthly character education traits (Trout, 2008). Students can benefit from visual reinforcements that promote character education (Brooks & Kann, 1993).
What children observe is important. Children pay attention to nuances surrounding emotions and social interactions, and as a result, teachers and parents need to model positive behaviors to children (e.g., Berkowitz, 2002; Berkowitz & Bier, 2005; Berkowitz & Grych, 2000; Bajovic, Rizzo, & Engemann, 2009). To support a common message, adults should work together to exhibit and model the same behaviors (e.g., Berkowitz & Bier, 2004; Cohen, 2006).

Several studies suggest that teachers, along with parents, play a central role in children’s social-emotional development. For example, positive and secure attachments to teachers are essential in prekindergarten (Berkowitz & Bier, 2004; Janas & Nabors, 2000; Raver & Knitze, 2002), as prekindergarten students with closer teacher relationships have better social skills, fewer problem behaviors, higher levels of intrinsic motivation, and greater academic achievement (Burchinal et al., 2008; Carlton & Winsler, 1998; Curby, Brock, & Hamre, 2013; Howes et al., 2008; Mashburn et al., 2008).

As mentioned earlier, parents also play an important role, and ultimately, character education programs can be more effective when there is dual support from parents and teachers (Berkowitz, 2002; Berkowitz & Bier, 2004; Berkowitz & Bier, 2005; Brooks & Kann, 1993).
Conclusion

Social-emotional awareness and regulation strongly relates to cognition and is an integral part of school readiness (e.g., Blair, 2002; Denham et al., 2012b; Denham et al., 2013). Given this association, it becomes important to build students’ social-emotional knowledge and skills. One method involves use of a character education or social-emotional program in early childhood.

This paper summarized the foundational research base for the Learning for Life Early Childhood Integrated Academic and Character Development Program. Sections of the paper described the research base behind character education program effectiveness, research supporting use of different character education topics, research underlying use of different instructional strategies and collaborative approaches, and research behind the importance of ideal program implementation.

Several studies find early childhood character education programs can have positive effects on students’ social readiness for school (e.g., Allen, 2009; Ashdown & Bernard, 2012), emotional reactivity (e.g., Bierman et al., 2008), academic behaviors (e.g., Stefan & Micela, 2013; Webster-Stratton et al., 2008), and overall classroom environments (e.g., McMahon et al., 2000). Instruction in specific topic areas, such as personal safety and persistence, offers potentially positive outcomes. Specifically, personal safety programs can build student awareness of abuse prevention techniques (e.g., Nemerofsky et al., 1994) and persistence training might be helpful, as students with greater persistence have better academic and social-emotional outcomes (Berhenke et al., 2011; Mokrova et al., 2013).

Research-based programs that incorporate parental support and focus on student mastery through explicit instruction and small-group, active learning opportunities can positively benefit students. Several studies suggest that greater parental involvement in early childhood classrooms can benefit students academically (e.g., Miedel & Reynolds, 1999; Wurtele et al., 1992). Furthermore, when classrooms emphasize mastery goals and utilize explicit character education instruction, students’ motivation and social competence can increase (e.g., Ashdown & Bernard, 2012; Carlton & Winsler, 1998). Small group activities, classroom discussions, and active learning opportunities can also lead to several benefits, such as more positive interactions, greater academic engagement, and greater student autonomy (e.g., Berkowitz & Grych, 2000; Carlton & Winsler, 1998; Wasik, 2008).

When using character education programs in early childhood, schools should understand the importance of ideal program implementation to realize the greatest possible outcomes. Based on the available research, there are three best practices:

1. Schools should implement programs as intended, with some room for flexibility.
2. Schools should embrace character education as an ongoing, whole-school initiative.
3. Parents and teachers must work together to be positive role models for early childhood students.

In summary, character education and social-emotional programs in early childhood offer a possible support for students’ academic and social readiness. Through a research-based early
childhood program, Learning for Life aims to positively influence student outcomes by supporting students in building a positive foundation for social and academic success.
References


Social and Character Development Research Consortium (2010). *Efficacy of Schoolwide Programs to Promote Social and Character Development and Reduce Problem Behavior*


Appendix. Range of effect sizes by research topic area

Effect sizes represent standard deviation differences between two conditions or two time points. For example, an effect size equal to 1.0 translates to a one standard deviation difference between groups (e.g., pretest/posttest, treatment/control). Readers can interpret the strength of an educational intervention using effect sizes and some basic guidelines from Hattie (2009), who examined the distribution of 146,142 educational effect sizes. Hattie (2009) found that many educational studies report positive results and the average reported effect size is higher than zero (average effect size = 0.40). As a result, Hattie (2009) suggested using 0.40 as a benchmark for determining the relative strength of an educational intervention. Table A1 briefly describes the proposed categories and effect size ranges described in Hattie (2009).

Table A1. Hattie (2009) interpretation of effect sizes

<table>
<thead>
<tr>
<th>Hattie (2009) Category</th>
<th>Effect Size Range</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse effects</td>
<td>Below 0.0</td>
<td>Negative effect sizes; Decreases in student outcomes (e.g., achievement/performance)</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>0.0 to 0.15</td>
<td>Effect sizes usually found due to typical student improvement over the course of a year (i.e., maturation/development)</td>
</tr>
<tr>
<td>Teacher effects</td>
<td>0.15 to 0.40</td>
<td>Effect sizes usually found for teacher average impacts on student performance over the course of a year (i.e., teacher influence accounts for a 0.15 to 0.40 standard deviation increase in student growth)</td>
</tr>
<tr>
<td>Zone of desired effects</td>
<td>Above 0.40</td>
<td>Effect sizes representing the greatest potential impacts on students</td>
</tr>
</tbody>
</table>

The studies cited in this report found positive effect sizes for programs that addressed nine character education topics addressed in the Learning for Life Early Childhood Integrated Academic and Character Development Program (see Table A2). All effect sizes fell between the Hattie (2009) categories of teacher effects and zone of desired effects.
Table A2. Range of reported effect sizes in studies cited in Learning for Life Early Childhood Integrated Academic and Character Development Program foundational research report

<table>
<thead>
<tr>
<th>Topic Area</th>
<th>Effect Sizes (Range)(^a)</th>
<th>Hattie (2009) Effect Size Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RE(^b) DE TE ZDE</td>
</tr>
<tr>
<td>Social-emotional skills and school readiness</td>
<td>0.01–2.14</td>
<td>X X X</td>
</tr>
<tr>
<td>Early childhood character and social skills programs</td>
<td>0.21–2.87</td>
<td>X X X</td>
</tr>
<tr>
<td>Abuse prevention in early childhood</td>
<td>0.27–2.35</td>
<td>X X X</td>
</tr>
<tr>
<td>Task persistence/perseverance</td>
<td>0.32–0.90</td>
<td>X X X</td>
</tr>
<tr>
<td>Explicit character education programs</td>
<td>0.87–1.37</td>
<td>X X X</td>
</tr>
<tr>
<td>Fostering mastery goals</td>
<td>0.45–0.73</td>
<td>X X X</td>
</tr>
<tr>
<td>Parent involvement in education</td>
<td>0.12–0.85</td>
<td>X X X</td>
</tr>
<tr>
<td>Teacher positive support</td>
<td>0.13–0.21</td>
<td>X X X</td>
</tr>
<tr>
<td>Parent perceptions of teacher responsiveness</td>
<td>0.43–0.61</td>
<td>X X X</td>
</tr>
</tbody>
</table>

\(^a\) Magnolia Consulting calculated effect sizes using information provided by articles cited in the foundational report. Positive effect sizes represent more positive student outcomes (e.g., achievement, performance).

\(^b\) RE = Reverse effects, DE = Developmental effects, TE = Teacher effects, ZDE = Zone of desired effects
Notes

1. Denham et al. (2012b) assessed 352 children (ages 3 and 4) and examined how social-emotional expression predicted academic outcomes in preschool and kindergarten. Students rated as more aggressive had lower levels of adjustment in preschool ($\beta = -0.11, p < .05$, effect size = -0.22) and kindergarten ($\beta = -0.28, p < .01$, effect size = -0.58). Additionally, there was a trend for students with higher levels of aggressive behaviors in preschool to have lower academic success ($\beta = -0.18, p < .07$, effect size = -0.37). Researchers also found that students’ aggressive behaviors mediated the relationship between emotion knowledge/understanding and school adjustment.

2. Denham et al. (2012a) investigated different social skills patterns in a sample of prekindergarten children to understand how early social skills relate to kindergarten social skills and academic performance. The study sample included 275 children (4.5 years old) and a subsample of 106 students followed into kindergarten. Students at risk for social-emotional problems in prekindergarten had significantly lower academic performance ($F(2,90) = 10.62, p < .001$, effect size = 0.69), poorer relationships with teachers ($F(2,92) = 10.95, p < .001$, effect size = 0.67), poorer adjustment ($F(2,92) = 13.45, p < .001$, effect size = 0.76), greater anger ($F(2,92) = 10.18, p < .001$, effect size = 0.67), less cooperative behaviors ($F(2,92) = 18.27, p < .001$, effect size = 0.89), and more anxiety ($F(2,92) = 3.46, p < .05$, effect size = 0.39) in kindergarten compared to students classified as socially-emotionally competent.

3. Alexander et al. (1997) examined longitudinal predictors of high school dropout using data from 790 students in 20 elementary schools. Overall, first grade students who experienced greater classroom engagement (i.e., less externalizing behaviors, more on-task behaviors, higher adaptability) were less likely to dropout by the end of high school compared to their peers with more difficulties (odds ratio = 0.42, effect size = -0.48). As a result, students with greater engagement problems in first grade were 2.5 times more likely to drop out of school.

4. Dombek and Connor (2012) conducted a study with 114 first grade students and 43 teachers to understand factors associated with grade retention. Overall, students with lower self-regulation scores (i.e., social skills, academic skills, attention skills) were more likely to be retained than their peers (Wilks’ Lambda $(4,64) = .784, p = .003$). In post-hoc analyses, researchers also noted that there was a trend for students who were retained to have poorer social skills compared to students who were not retained ($F(1,67) = 3.69, p = .06$, effect size = 0.47).

5. Denham, Way, Kalb, Warren-Khot, and Bassett (2013) examined how head start students’ emotional and behavioral responses to peer conflict predicted kindergarten school adjustment and academic outcomes. The study included 298 4-year old students, who were followed into kindergarten. In response to peer provocation situations, students who expressed more sadness ($\beta = 0.20, p < .01$, effect size = 0.41) and socially appropriate responses ($\beta = 0.10, p < .10$, effect size = 0.20) had better school adjustment in prekindergarten. Furthermore, prekindergarten students who expressed more sadness and socially appropriate responses to the situations also had more positive school adjustment in kindergarten ($\beta = 0.32, p < .05$, effect size = 0.68 [sadness]; $\beta = 0.19, p < .05$, effect size = 0.39 [socially appropriate]) and higher levels of academic readiness in kindergarten ($\beta = 0.45, p < .001$, effect size = 1.01 [sadness]; $\beta = 0.26, p < .01$, effect size = 0.54 [socially appropriate]).

6. Rhoades, Warren, Domitrovich, and Greenberg (2011) examined relationships between emotional knowledge in prekindergarten and academic achievement in first grade. The study included 341 at-risk students followed for three years (from prekindergarten through first grade). Using structural equation modeling, researchers found that higher levels of emotion knowledge in preschool predicted higher levels of first grade academic achievement ($\beta = 0.39, p < .05$, effect size = 0.85). Furthermore, higher levels of emotional knowledge in preschool predicted higher levels of attention in kindergarten ($\beta = 0.51, p < .05$, effect size = 1.19), and higher levels of kindergarten attention predicted higher first grade academic performance ($\beta = 0.51, p < .05$, effect size = 1.19). Furthermore, kindergarten attention served as a mediator of the relationship between preschool emotion knowledge and first grade academic performance.

7. Winsler et al. (2012) examined relationships between different prekindergarten and demographic predictors and children’s likelihood of repeating kindergarten. The study sample included 13,191 at-risk children followed longitudinally from prekindergarten through kindergarten. Using logistic regression, researchers found...
prekindergarten students with higher social skills were less likely to repeat kindergarten (i.e., kindergarten retention) (odds ratio = 0.99, \( p < .05 \), effect size = -0.01).  

8 Ziv (2013) examined the relationship between social understanding/competence variables and academic readiness in preschool students. The study sample included 198 preschool children. Using structural equation modeling, Ziv (2013) found that students with greater understanding and interpretation of social cues had higher levels of teacher-reported school readiness at the end of preschool (e.g., language ability, motivation to learn, attention) (\( \beta = 0.61, p < .001 \), effect size = 1.54). Furthermore, teachers rated students who were better at interpreting social cues as more socially competent (\( \beta = 0.73, p < .001 \), effect size = 2.14). Higher levels of teacher-reported social competence also predicted higher levels of teacher-reported school readiness (\( \beta = 0.29, p < .001 \), effect size = 0.61). Additionally, teacher-reported social competence scores mediated the relationship between students’ social cue performance and level of school readiness.  

9 This foundational research paper is not an efficacy study of Learning for Life’s Early Childhood program. Researchers did not investigate the impact of Learning for Life’s character education program in any studies cited in this report.  

10 Effect sizes represent standard deviation differences between two conditions or two time points. For example, an effect size equal to 1.0 translates to a one standard deviation difference between groups (e.g., pretest/posttest, treatment/control).  

11 Durlak and Wells (1997) conducted a meta-analysis of 177 programs in childhood and adolescence that targeted prevention of social-behavioral adjustment problems. The overall effect size for the effectiveness of school-based programs was 0.35. Programs focusing on interpersonal problem solving had positive effects in prekindergarten (effect size = 0.93) and elementary samples (effect size = 0.36). Programs focused on improving children’s emotional awareness and expression were especially effective in prekindergarten (effect size = 0.70) but also effective in elementary age (7–11) (effect size = 0.24) and older populations (age 11+, effect size = 0.33).  

12 Beelman, Pfingsten, and Lösel (1994) conducted a meta-analysis of 49 studies of social competence training programs for students aged 3- to 15-years-old. To be included in the analysis, studies needed an explicit training focus on improving student play, cognitive skills (e.g., problem solving), or emotional skills (e.g., anger). The weighted mean effect size for the prekindergarten group was \( d = 0.96 \), suggesting social competence program participation positively benefited students. Prekindergarten students (ages 3–5) also had high effect sizes for higher social skills (effect size = 1.12) and more positive social interactions (effect size = 0.43). Researchers found greater effect sizes for prekindergarten students compared to all other age groups.  

13 Hahn et al. (2007) examined the effectiveness of different PreK-12 prevention programs that aimed to reduce violence or aggression by educating students about violence and aggression or other related social-emotional issues, such as self-awareness, self-esteem, positive social interactions, conflict resolution, etc. In prekindergarten, participation in these treatment programs resulted in a 33% decrease in aggressive and violent behavior.  

14 Lösel and Beelman (2003) conducted a meta-analysis of 84 studies to determine program impacts of social skills training on preventing violent and antisocial behavior in children and adolescents. The mean effect size was 0.36, suggesting social skills training programs had positive effects on student behavior. Furthermore, researchers found positive effects for students in early childhood (ages 4–6) immediately after the intervention (effect size = 0.31) and at a follow-up date (effect size = 0.74).  

15 Allen (2009) conducted an evaluation of the Peacemakers (violence prevention) program in Florida prekindergarten classrooms. The 5-hour program teaches coping, problem solving strategies, and social skills to students (one 1-hour session weekly for five weeks). [Note. Teachers use explicit instruction in teaching different emotions and ways to deal with negative emotions.] In a quasi-experimental study design, researchers assigned students to receive the Peacemakers program (treatment) or no intervention (control). The study included 161 students from 31 classrooms and 21 schools. Teachers rated treatment group students as having more social skills in conflict situations (\( \eta^2 = 0.19 \), effect size = 0.97) compared to control students.
16 Ashdown and Bernard (2012) examined the impact of providing elementary students with explicit instruction in social-emotional competence. The study sample included 99 students from four classrooms. Researchers randomly assigned two classrooms to use the explicit social-emotional program (You Can Do It!) and two to receive no social-emotional instruction (comparison). Overall, students who received explicit instruction in social-emotional skills/competence had more positive social well-being ($\eta^2 = 0.16$, effect size = 0.87), higher social-emotional competence ($\eta^2 = 0.22$, effect size = 1.06), and more positive social skills ($\eta^2 = 0.32$, effect size = 1.37) compared to students in comparison classrooms.

17 Bierman et al. (2008) investigated the impact of an enriched prekindergarten program (including social-emotional and literacy research-based instructional activities and strategies) on student social-emotional and literacy outcomes. Social-emotional strategies came from the Preschool Providing Alternative Thinking Strategies (PATHS) Curriculum, which emphasizes prosocial skills, emotion management and understanding, self-control, and problem solving through 33 whole-group lessons. Researchers randomly assigned classrooms to participate in the treatment (traditional prekindergarten instruction plus PATHS and literacy components) or control (traditional prekindergarten instruction only) conditions. The study included 356 four-year-old children from 44 classrooms. Using HLM analyses, researchers found that students in the treatment group were more effective at recognizing emotions (effect size = 0.23, $p = 0.03$), had lower levels of aggression (effect size = -0.21, $p = 0.04$) and fewer ineffective responses in problem-solving situations (effect size = -0.28, $p = 0.03$), and more effective responses in problem-solving situations (effect size = 0.35, $p = 0.005$) compared to control students. Additionally, teachers rated treatment students as less aggressive compared to control students (effect size = -0.28, $p = 0.05$). Finally, blind observers rated treatment students as more engaged in school and on-task during class (effect size = 0.29, $p = 0.02$).

18 Brigman et al. (1999) investigated program impacts of the Ready to Learn (RTL) program on prekindergarten students’ (ages 4 and 5) social skills and success. RTL teaches listening skills, attention skills, and social skills in traditional prekindergarten instruction. Study participants included 144 students from 10 classrooms at three preschools. Researchers randomly assigned classrooms to use the RTL program in addition to their traditional instruction (treatment) or to only use traditional instructional approaches (control). Compared to control groups, students in treatment groups had greater on-task behavior ($F[2,142] = 14.71$, $p = 0.001$, effect size = 0.64), more positive social skills as rated by teachers ($F[2,142] = 5.41$, $p = 0.005$, effect size = 0.39), and greater listening skills ($F[2,142] = 6.27$, $p = 0.003$, effect size = 0.42; on 1 of 2 listening skill measures). There was no significant difference between groups for the first listening comprehension measure.

19 Domitrovich, Cortes, and Greenberg (2007) studied the impact of the Promoting Alternative Thinking Strategies program (PATHS) on prekindergarten student social skills. PATHS includes 30 emotional awareness, social skills, and problem solving lessons delivered to the whole class. Researchers followed 20 randomly assigned classrooms over nine months. Treatment classrooms participated in PATHS in addition to their traditional curriculum and control classrooms only used their traditional prekindergarten curriculum. Students in the treatment condition (compared to control) had higher levels of emotional awareness (effect size = 0.36), greater perspective taking ability (effect size = 0.28), and were less likely to incorrectly perceive peer emotions as anger (effect size = 0.40). Teachers also rated treatment (compared to control students) higher in social-emotional competence (effect size = 0.46) and social skills (effect size = 0.48) and lower in social withdrawal (effect size = 0.24). Finally, parents rated treatment students higher in social-emotional competence compared to control students (effect size = 0.36).

20 McMahon et al. (2000) used a treatment-only design to understand relationships between program participation in Second Step: A Violence Prevention Program and prekindergarten student outcomes. The program includes lessons on empathy, problem-solving, and anger management and aims to reduce aggression while increasing prosocial characteristics. After participating in the intervention, students had significantly higher emotional knowledge ($\eta^2 = 0.24$, effect size = 1.12) and preschool students had significantly fewer teacher-reported problem behaviors ($\rho = 0.03$). Researchers also observed that verbal aggression ($\eta^2 = 0.19$, effect size = 0.97), classroom disruptions ($\eta^2 = 0.17$, effect size = 0.91), and physical aggression ($\eta^2 = 0.05$, effect size = 0.46) significantly decreased over time.

21 Pickens (2009) examined outcomes associated with training parents and teachers in a social-emotional program. The Peace Education Foundation (PEF) program teaches conflict resolution strategies, emotional skills, and social skills. Teachers participated in a 2-day training and parents had the option of attending a 3-hour workshop. The quasi-
experimental design included 10 treatment schools (PEF program) and five comparison schools (business as usual). Teachers rated prekindergarten treatment students as having higher levels of positive social skills ($F[1,1330] = 21.91, p < .001$, effect size $= 0.55$) and lower levels of problem behaviors ($F[3,291] = 4.45, p = .004$, effect size $= 0.25$) at the end of the study compared to comparison students.

Stefan and Micela (2013) investigated the effectiveness of the Social-Emotional Prevention Program (SEP) on prekindergarten students. The program educates students in social and emotional skills, provides teacher training, and offers parent program and social skills training. This randomized control trial included 89 treatment students and 69 control students from 14 Romanian classrooms. Using HLM analyses, researchers found that students in treatment groups could identify emotions better (effect size $= 0.50$), recognize different emotional expressions with greater proficiency (effect size $= 0.36$), and identify positive problem solving strategies better (effect size $= 0.62$) compared to control students. Teachers rated treatment students higher in social competence (effect sizes $= 0.34-0.36$), emotional competence (effect size $= 0.52$), and lower in behavior problems (effect size $= 0.53$) compared to control students. Finally, parents rated treatment students as significantly higher in social competence (effect size $= 0.36$), emotional competence (effect size $= 0.52$), and reported students had fewer behavior problems (effect size $= -0.27$) compared to control students.

Webster-Stratton et al. (2008) used an RCT to investigate the impact of the Incredible Years Teacher Classroom Management and Child Social and Emotion Curriculum on early elementary school student school readiness. In the program, students receive two lessons per month in various topic areas (e.g., social skills, communication, managing anger), parents receive homework on the program, teachers receive training, and teachers focus on positive classroom management and interactions. The study included 160 classrooms (head start to Grade 1), 1,768 students, and 119 teachers in the Seattle area identified as low socio-economic status (SES). After one year of implementation, trained (also blind to condition) observers rated students in character development schools as significantly more ready for school (socioemotionally) compared to students from control classrooms (effect size $= -0.82$). Students who started the study at very low levels of social-emotional skills saw greater effects (effect size $= -2.87$). [Note that lower scores reflect greater readiness/social-emotional skills]. The program also positively impacted intervention students with more conduct problems at pretest compared to control (effect size $= -0.29$ to -1.65). The classroom atmosphere also improved more in the intervention compared to the control condition (effect size $= 1.03$). Finally, children in the intervention group performed better than control students in identifying positive problem solving strategies ($\eta^2 = 0.04$, effect size $= 0.41$) and in labeling positive emotions ($\eta^2 = 0.14$, effect size $= 0.81$).

Davis and Gidycz (2000) conducted a meta-analysis of 27 different studies of child sexual abuse programs for children ages 3-13. Researchers found programs had an overall positive effect (effect size $= 1.07$) and a large weighted mean effect size for prekindergarten (effect size $= 2.14$). Prekindergarten effect sizes had larger effect sizes compared to older age groups.

Nemerofsky et al. (1994) conducted a quasi-experimental study to examine prekindergarten knowledge outcomes associated with participation in a sexual abuse prevention program. Overall, students who participated in the program had greater knowledge of sexual abuse prevention techniques compared to students who did not receive the program ($F[1,1330] = 1835.30, p < .001$, effect size $= 2.35$). Additionally, older students had greater knowledge of abuse prevention techniques than younger students ($F[3,1330] = 23.43, p < .001$, effect size $= 0.27$). For example, 4-5 year old students had more knowledge than 3-year olds ($p < .05$).

Ratto and Bogat (1990) compared 19 preschool students who received a sexual abuse prevention program to 20 preschool students who did not receive the same program. At immediate and follow-up posttests, treatment students had higher knowledge of personal safety on a close-ended measure (immediate: $F[1,35] = 30.45, p < .001$, effect size $= 1.87$; follow-up: $F[1,35] = 10.12, p < .01$, effect size $= 1.08$), but there were no significant differences between groups on an open-ended knowledge measure. There were also no significant differences between groups in levels of fear of abuse at immediate or follow-up assessments.

Rispens, Aleman, and Goudena (1997) conducted a meta-analysis of 16 studies of child sexual abuse prevention programs. Researchers found programs had a positive effect on student knowledge immediately after participation (effect size $= 0.71$) and at follow-up (effect size $= 0.62$). Younger populations had greater program effects (<5.5 years old, effect size $= 0.97$) compared to older populations (>5.5 years, effect size $= 0.67$).
Sarno and Wurtele (1997) compared preschool student knowledge following participation in a child sexual abuse prevention program (treatment) or generic personal safety program (comparison). Overall, students in the treatment condition had greater knowledge of appropriate reactions in sexual abuse situations compared to students in the comparison group ($F[1,73] = 21.12, p = .000$, effect size = 1.08).

Wurtele et al. (1992) compared a preschool sexual abuse prevention program (three treatment conditions: (a) parent-taught only, (b) teacher-taught only, (c) parent and teacher taught) with a generic personal safety program that did not reference sexual abuse prevention techniques (e.g., preventing fires, poison prevention; comparison condition) ($n = 172$ students). Overall, students in treatment conditions had greater knowledge of appropriate reactions in sexual abuse situations compared to students in the comparison group ($p < .001$). Treatment students also signified they understood they could contact a wide variety of individuals to disclose potential abuse (e.g., parents, teachers, police) and a greater percentage of treatment compared to comparison students understood available resources ($χ² < .05$).

In a review of five prekindergarten studies, Wurtele and Owens (1997) found participation in abuse prevention programs (compared to non-participation) predicted greater awareness of inappropriate touch and greater abuse prevention knowledge.

Mokrova et al. (2013) examined how task persistence at age 3 predicted academic achievement in kindergarten. In a sample of 263 children followed longitudinally, researchers found (using path analysis) that higher levels of persistence at age 3 (i.e., more time spent on a challenging task) predicted higher language performance ($β = 0.16, p < .01$, effect size = 0.32) and higher math performance ($β = 0.19, p < .001$, effect size = 0.39) in kindergarten.

Berhenke et al. (2011) examined how motivation constructs predicted school readiness in preschool students. The study sample included children from 131 families assessed in the fall of kindergarten. Researchers found that greater prekindergarten student persistence and on-task behavior on difficult/unsolvable tasks related to less hyperactive behavior ($β = -0.33, p < .05$, effect size = -0.70), higher social competence ($β = 0.41, p < .05$, effect size = 0.90), greater interpersonal competence ($β = 0.38, p < .05$, effect size = 0.82), greater on-task behaviors ($β = 0.41, p < .05$, effect size = 0.90), greater math performance ($β = 0.39, p < .05$, effect size = 0.85), and greater reading performance ($β = 0.31, p < .05$, effect size = 0.65).

Smiley and Dweck (1994) conducted an experiment with 78 preschoolers to understand motivational differences. Researchers found that 49% of prekindergarten children have a mastery motivation approach and 51% have a performance orientation. Researchers found no age-related or gender differences in the two groups. Mastery goal children were more interested in challenge, whereas performance goal students preferred easier work and showed greater concern about overall performance. When faced with a difficult/insolvable task, performance students had significantly more negative feelings compared to mastery students ($t(70) = 3.01, p < .01$, effect size = 0.73) and had less confidence that they would be successful on a future task ($χ²(1, N = 78) = 7.10, p < .01$, effect size = 0.63).

Turner and Johnson (2003) examined the link between mastery and performance in preschool. The sample included 169 at-risk preschool children. Researchers found that prekindergarten students with a mastery orientation also had greater achievement ($β = 0.22, p < .05$, effect size = 0.45).

Turner and Johnson (2003) examined the link between mastery and performance in preschool. Researchers found that prekindergarten students with more positive parent-child relationships were more likely to have a mastery orientation ($β = 0.35, p < .05$, effect size = 0.75).

Miedel and Reynolds (1999) predicted how levels of parent involvement during prekindergarten and kindergarten predicted student outcomes. There was a trend for greater frequency of parental involvement (e.g., weekly) during early childhood (preK-Kindergarten) to predict greater kindergarten reading achievement ($β = .06, p < .10$, effect size = 0.12). Further, greater parent participation in class/school activities during the prekindergarten/Kindergarten years significantly predicted student kindergarten reading achievement ($β = 0.08, p < .05$, effect size = 0.16) and eighth grade reading achievement ($β = 0.10, p < .01$, effect size = 0.20).
Researchers found significant correlations between total character education implementation scores and positive values, school-wide values, active parent/community in character education, promotion of values throughout the school day, staff model reactions in sexual abuse situations compared to students in the comparison group (2012) examined the impact of the Lessons in Character (LIC) program on elementary student outcomes. There were no significant program effects. However, researchers reported only 30% of teachers implemented the recommended number of lessons in the first year and only 23% implemented the recommended
number in the second year. Hanson et al. (2012) speculated that one possible reason for a lack of effects could be poor program implementation.

45 The Social and Character Development Research Consortium (2010) provided evaluation results on the impact of seven different character education programs on student behavior from Grades 3 to 5. They found no evidence of program effectiveness in multiple analyses of program impacts on student outcomes and perceptions of school climate. However, researchers noted poor implementation might have been responsible.

46 Burchinal et al. (2008) investigated how teacher quality and classroom climate related to prekindergarten student outcomes in the spring of kindergarten. The study included 878 prekindergarten participants followed into kindergarten. Researchers conducted observations of classroom climate and assessed students on several academic outcome measures in kindergarten. Overall, students who had more supportive, quality, and encouraging classroom environments in prekindergarten also had better social skills (ρ < .05).

47 Curby, Brock, and Hamre (2013) examined how levels of teacher-provided emotional consistency predicted prekindergarten student outcomes both in prekindergarten and kindergarten. Emotional consistency referred to consistent levels of teacher emotional support and responsiveness to student needs throughout the school day. The study included data from 2,938 prekindergarten students in 694 classrooms. Using HLM models, after controlling for mean levels of teacher emotional support and student demographic variables, higher levels of teacher emotional consistency predicted higher student language skills (b = 2.55, p < .05), higher rhyming performance (b = .94, p < .05), and better letter naming performance (b = 1.94, p < .05) in prekindergarten; and higher levels of social competence in kindergarten (b = 0.24, p < .05).

48 Howes et al. (2008) examined which prekindergarten classroom variables predicted student academic and social outcomes in a sample of 2,800 students from 701 randomly selected classrooms of 3- and 4-year old students. Researchers found that students who had closer relationships with their teachers had greater improvements in social skills during prekindergarten (effect size = 0.21) and fewer problem behaviors (effect size = -0.13).

49 Mashburn et al. (2008) investigated how different classroom and teacher characteristics in prekindergarten settings predicted student outcomes. The study included 2,349 prekindergarten children from 671 classrooms. Using HLM analyses, researchers found that when teachers provided higher levels of emotional support, students had higher student social skills (ρ < .05) and fewer problem behaviors (ρ < .01).