The Learning for Life
Foundational Research Base

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

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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.

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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

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).[3,4]
- 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).[5,6,7,8]

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

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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)

"If society is to flourish and the world in which we live is to be safer and more benevolent, then it must be populated by individuals with healthy character. An essential ingredient in making this possible is how young children are educated and raised in our society. Early childhood educators have a very significant role to play in fostering character development in our youth." (p. 69, Berkowitz & Grych, 2000)

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.[9] 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.[10]

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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).[11,12,13,14]

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),[15,16,17,18,19,20,21,22,23]
- 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).[24,25,26,27,28,29,30]

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).[31] 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).[32]

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)

Students need explicit instruction in character education. Teachers cannot expect that students are receiving the information elsewhere. During explicit instruction, teachers can provide students with information on specific character education traits, their meaning, and how to apply the behaviors in everyday life (Brooks & Kann, 1993; Burton, 2008). Research studies support the effectiveness of explicit instruction during early childhood. For example, students who received explicit social-emotional instruction had more positive social well-being, higher social-emotional competence, and greater social skills compared to students who did not receive social-emotional instruction (e.g., Allen, 2009; Ashdown & Bernard, 2012).

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),

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- 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).[33,34] 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).[35]

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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).[36,37,38,39] As another example, research by Miedel and Reynolds (1999) [40] 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.[41] 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).[42] 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).[43] 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).[44,45]

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).

Parents and teachers must work together to be positive role models for early childhood students.

> *"It is pointless to expect children to be respectful and responsible if the adults in their lives do not act respectfully and responsibly. Many educators ague that they are not character educators and often they do not want to be. If you work with or around children, you cannot not be a character educator. Abstaining is not an option. Your behavior will affect children's character development, for good or ill. Cleaning up our acts and walking the talk is necessary for character education to be effective."*
> *(p. 60, Berkowitz, 2002)*

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).[46,47,48,49]

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).

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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.

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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

Hattie (2009) Category	Effect Size Range	Brief Description
Reverse effects	Below 0.0	Negative effect sizes; Decreases in student outcomes (e.g., achievement/performance)
Developmental effects	0.0 to 0.15	Effect sizes usually found due to typical student improvement over the course of a year (i.e., maturation/development)
Teacher effects	0.15 to 0.40	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)
Zone of desired effects	Above 0.40	Effect sizes representing the greatest potential impacts on students

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.

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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

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

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

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The Learning for Life K-12 Integrated Academic and Character Development Program Foundational Research Base

July 10, 2014

Executive Summary

Research over the past 30 years suggests that schools can teach character development, resulting in a wide array of positive intrapersonal, interpersonal, and academic outcomes.

This foundational research report examined the research base behind components of Learning for Life's K-12 Integrated and Academic Character Development Program, which aims to build student character through various research-based, age-appropriate, and integrated character education themes, activities, and instructional strategies. The report also offers research-based guidelines for optimal implementation of character education programs.

Learning for Life includes different components by school level

Elementary school students can benefit from Learning for Life's instruction in character trait education, personal safety education, and parental involvement. Research suggests that character-based education and personal safety programs positively impact elementary student outcomes, including successful transitions to middle school (e.g., Battistich et al., 1989; Taylor et al., 2002) and greater student awareness of abuse-prevention techniques (e.g., Davis & Gidycz, 2000; Oldfield et al., 1996). Additionally, involving and engaging parents in initiatives can promote student achievement (e.g., Adamski et al., 2013).

At the middle school level, students can learn about character trait education, career exploration, and civics education. Research suggests character-based education in middle school positively influences student outcomes, including student adjustment during school transitions (e.g., Farrell et al.,

2003; Taylor et al., 2002). Career exploration opportunities can also engage students, supporting higher career interest and confidence (e.g., O'Brien et al., 1999; Wyss et al., 2012). Finally, civics education can support middle school students' knowledge, achievement, and community engagement (e.g., Galston, 2001, 2007; Wilcox, 2010).

In high school, students in Learning for Life's program can benefit from character trait education, moral and civics education, career and college awareness-building, and life skills instruction. As with earlier grade levels, high school character education initiatives can improve student outcomes and support students during college transition (e.g., Hahn et al., 2007; Parker et al., 2006). Moral dilemma discussions and service learning experiences offer opportunities for moral development and expanded civic knowledge and participation (e.g., Bajovic et al., 2009; Hart et al., 2007). Research also suggests college and career awareness-building opportunities benefit high school students, supporting positive college and career outcomes (e.g., Hooker & Brand, 2009; McWhirter et al., 2000). Furthermore, life skills instruction can build a foundation for future success (e.g., Duckworth & Seligman, 2005).

Learning for Life includes several research-based components and instructional strategies for grades K-12

Throughout all levels of the program, Learning for Life incorporates research-based components and instructional strategies. For example, when character education programs are aligned with Common Core and state standards in literacy, teachers have time to address literacy and character development simultaneously (e.g., Jones et al., 2010; Marshall et al., 2011). Additionally, research suggests mastery and distributed learning

opportunities are effective strategies for increasing student motivation and long-term retention (e.g., Ames, 1992; Cepeda et al., 2006). Furthermore, active and cooperative learning activities can increase student engagement and achievement, and explicit instruction opportunities can support student understanding (e.g., Ashdown & Bernard, 2012; Burenheide, 2012; Kyndt et al., 2013). Finally, teacher training opportunities can promote higher levels of implementation (e.g., Berkowitz & Bier, 2005).

Strengthening positive outcomes: The importance of optimal implementation

Schools need high levels of implementation to maximize character education program effectiveness. Based on available research, I suggest four guidelines for optimal implementation of character education programs:

1. Schools should implement character education programs over an extended period.
2. Students need positive teacher role models and supportive classroom environments.
3. Schools should offer safe and supportive environments committed to whole-school implementation of character education.
4. Schools should seek community and parental support to maximize implementation of character education programs.

Conclusion

Learning for Life's program aims to build student character through an array of research-based and integrated character education themes, activities, and instructional strategies. When schools implement Learning for Life with optimal levels of implementation, they maximize the potential for a wide array of positive outcomes.

Acknowledgements

Introduction

American society argues that character is important. Individuals frequently emphasize the importance of character in everyday life, from school (e.g., Character Education Partnership, 2014b), to careers (e.g., Covey, 2013), and even the presidency (e.g., Noonan, 2002), but what *is* character? Dr. Marvin Berkowitz (2002), Co-Director of the Center for Character and Citizenship at the University of Missouri St. Louis, describes character as an individuals' moral ability to choose appropriate behaviors in different situations and contexts. Character includes interpersonal intelligence and positive youth development, such as high levels of social and emotional competence, social skills, self-confidence, positive identity, effective decision-making, and goal setting (Catalano et al., 2004; Payton et al., 2008). Thus, an individual with character operates at high levels of intrapersonal and interpersonal knowledge and understanding.

Building character in childhood and adolescence is important because it sets the stage for future success. Consider that higher levels of social-emotional skills and competence predict higher levels of academic achievement in elementary school (Elias & Haynes, 2008), middle school (Wentzel, 1991), and high school (Parker, Creque, Barnhart, Harris, Majeski, Wood, Bond, & Hogan, 2004). As a result, K-12 students with high social-emotional knowledge realize higher levels of achievement, suggesting the importance of building social-emotional and character skills.

Fortunately, schools can effectively educate children and adolescents in these elements. When students participate in character education and social-emotional programs, in comparison to non-participation, students have higher social-emotional skills, more positive social-emotional interactions, higher self-image perceptions, less emotional distress, less depression and anxiety, fewer conduct and antisocial problems, and higher academic achievement (Durlak, Weissburg, Dymnicki, Taylor, & Schellinger et al., 2011; Durlak & Wells, 1997; Sklad et al., 2012).[50,51] Furthermore, when schools implement character education, studies suggest students are less likely to abuse substances, including illicit substances, cigarettes, alcohol, and marijuana (Lewis et al., 2012; Sklad et al., 2012);[52,53] have lower levels of school absenteeism; and have higher levels of academic motivation (Bavarian et al., 2013).[54]

This foundational research report examines the research base behind Learning for Life's Integrated Academic and Character Development program, which offers K-12 students the opportunity to learn various character education topics. Topics include:
- Explicit character trait education (e.g., respect, responsibility),
- Personal safety,

- Resolving interpersonal conflicts,
- Relationship building,
- Decision-making,
- Civics and moral education,
- College and career exploration and awareness,
- Life skills (e.g., self-discipline, money management), and
- Language arts and health.

At each grade level, the program provides specific instruction in character and social-emotional skills. In elementary school, program developers emphasize character trait education, personal safety, and parental involvement. In middle school, the program targets character trait education, career exploration, and civics education. Finally, in high school, the program provides character trait education, moral and civics education, career and college awareness-building, and life skills instruction.

Across grade levels, the program has several unique features and instructional strategies including, integration with traditional literacy instruction, mastery and distributed learning opportunities, active and cooperative learning activities, small and large group discussions, explicit instruction in character education skills, computer-assisted instruction, and teacher training opportunities.

This foundational report summarizes the research base behind Learning for Life program components within and across school levels.[55] In the sections that follow, I summarize existing research on the effectiveness of character education programs at different school levels, review the research base behind several of Learning for Life's components and instructional strategies, and offer several research-based guidelines for optimal program implementation. Throughout the report, endnotes provide additional study background, including design, analyses, and effect sizes.

Learning for Life includes different components by school level

To offer developmentally appropriate curricula, Learning for Life divided their Integrated Academic and Character Development Program into three main areas of emphasis. There is a program for elementary school, middle school, and high school, each with lessons specific to particular grade levels. Learning for Life's elementary (K-6) program focuses on character education and personal safety, while directly supporting parental involvement through daily take-home activities. In middle school (grades 7-8), Learning for Life's program highlights character education, career exploration, and civics instruction. Finally, in high school (grades 9-12), the program emphasizes: character education, civics education through service learning, moral education, career and college awareness building, and life skills. The following sections detail extant research on the effectiveness of these components for the three different school levels.

Elementary School

When elementary school students participate in character education programs focusing on intrapersonal and interpersonal skills, conflict resolution, and prosocial behavior, research suggests students experience a wealth of positive outcomes. Some of these include:

- greater concern for others (Battistich, Solomon, Watson, Solomon, & Schaps, 1989; Munoz & Vanderhaar, 2006),[56,57]
- greater uses of problem-solving strategies (Battistich et al., 1989; Webster-Stratton, Reid, & Stoolmiller, 2008),[58]
- greater prosocial behavior and fewer problem or violent behaviors (Battistich et al., 1989; Hahn et al., 2007; Parker, Nelson, & Burns, 2010),[59]
- greater interpersonal understanding (Jones, Brown, Hoglund, & Aber, 2010; Webster-Stratton et al., 2008),[60]
- greater intrapersonal understanding and competence (e.g., lower levels of depression, higher well-being) (Jones, Brown, Hoglund, & Aber, 2010; Snyder et al., 2012),[61]
- greater student independence (Munoz & Vanderhaar, 2006),
- more positive and supportive classrooms and school climates (Munoz & Vanderhaar, 2006; Parker, Nelson, & Burns, 2010; Snyder, Vuchinich, Acock, Washburn, & Flay, 2012; Webster-Stratton et al., 2008),
- greater student involvement in and satisfaction with school (Snyder et al., 2012),

- higher student reading and math scores (Munoz & Vanderhaar, 2006; Snyder et al., 2010),[62]
- fewer student absences and suspensions (Snyder et al., 2013),[63] and
- overall positive effects (Durlak & Wells, 1997).[64]

In addition to the extensive range of positive outcomes in elementary school, participation can support students when they transition to middle school. In one study (Taylor, Liang, Tracy, Williams, & Seigle, 2002), students who spent at least two years in a social-emotional program in elementary school experienced greater program effects compared to students who spent less than one year in the program. Specifically, girls with more exposure in elementary school had greater middle school adjustment and were more assertive. Boys with more exposure had lower incidences of fighting and higher reports of self-control during middle school.[65]

Elementary school students can also benefit from personal safety and abuse prevention instruction. When effectively implemented, personal safety programs have the potential to positively impact student outcomes. For example, previous research studies find that students have increased knowledge of short- and long-term abuse-prevention techniques after participation (Oldfield, Hays, & Megel, 1996; Rispens, Aleman, & Goudena, 1997; Wuertele, Saslawsky, Miller, Marrs, & Britcher, 1986).[66,67]

The National Center for Missing and Exploited Children and abuse prevention research provide several best practices for abuse prevention programs. Research-based recommendations emphasize the importance of providing developmentally appropriate lessons; repeating instruction over multiple years; allowing for active participation; fully implementing the program over multiple sessions; teaching students to recognize danger, inappropriate touch, and saying no; and encouraging children to tell an adult if they feel uncomfortable (Davis & Gidycz, 2000; Rispens, Aleman, & Goudena, 1997; Hawkins, 1999). By following these recommendations, research suggests developers can strengthen program effectiveness.

Additionally, parent influence is an important variable in elementary school character education, as parents make a positive difference in their child's character development. Berkowitz (2002) suggests that several parenting characteristics directly relate to children's character traits: (1) parental responsiveness and support (e.g., paying attention to children); (2) parental induction (e.g., when giving punishment, a parent discusses how the child's actions make others feel); (3) demanding behavior (e.g., setting high goals for children); and (4) positive role modeling (e.g., modeling self-control and helping).

When parents have greater school involvement and connectedness, students have higher achievement and higher levels of responsibility, cooperation, class enjoyment, and play (Adamski, Fraser, & Piero, 2013; Griffith, 1996; Lee & Bowen, 2006; McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004).[68,69,70,71] In contrast, when parents perceive several barriers to school involvement, students have more behavioral issues and lower academic performance (McWayne et al., 2004).

Once schools recognize the important role of parents in character education, they can promote higher levels of parental involvement. One way to do so is through take-home lessons that connect parents to daily classroom activities. Webster-Stratton et al. (2008) found that when teachers gave parents homework related to their child's social-emotional curriculum, parents

were more likely to participate in the classroom, and parents who had been less involved increased their level of participation.[72]

Overall, character education programs in elementary school can offer effective solutions for supporting students interpersonal, intrapersonal, social-emotional, and academic success. Personal safety components can offer an added benefit by building elementary student awareness of abuse prevention techniques. Finally, by involving elementary school parents in the program, schools can provide parents with a larger and effective role in their child's character education.

LEARNING FOR LIFE'S ELEMENTARY SCHOOL PROGRAM

Learning for Life's Integrated Academic and Character Development program in elementary school is integrated into language arts instruction, providing 61 lessons related to character trait development and personal safety. Students learn about eight core character traits: respect, responsibility, honesty/trust, caring/fairness, perseverance, self-discipline, courage, and citizenship.

There are also K-4 personal safety and abuse prevention lessons, with an associated video—"It Happened to Me"—that shows children discussing personal safety rules. For example, children review the rule, "Tell your parents or another adult you trust if you feel confused or scared." Through the lessons and video, students have multiple opportunities to actively engage in personal safety discussions through role play, reflection opportunities, and computer-based lessons and exercises.

Finally, each elementary school lesson includes a family/home activity, offering parents opportunities to reinforce character development lessons at home. For example, in a 2nd grade lesson on choices (under the theme of responsibility), students take home a handout to open parent-child discussions on identifying and making good choices versus bad ones. All parent take-home activities are available in English and Spanish.

Middle School

Character education can also benefit middle school students. Many researchers report positive influences of character education programs on middle school student behavior, such as higher levels of prosocial behavior and lower rates of violent behavior, aggression, discipline problems, and delinquency (Farrell, Meyer, Sullivan, & Kung, 2003; Hahn et al., 2007; Spence, Sheffield, & Donovan, 2003).[73,74,75] Additionally, there are positive intrapersonal impacts of character education, such as lower levels of depression and higher levels of problem solving, with greater impacts for students at risk for depression (Spence, Sheffield, & Donovan, 2003).[76]

Character and social-emotional education in middle school can also support student adjustment. Interpersonal skills, self-regulation, and control are all significant predictors of student adjustment, GPA, positive and negative mood, and life satisfaction in middle school (Shoshani & Sloane, 2013).[77] These relationships might explain why students with greater exposure to character education programs, with an embedded social skills training component, have better adjustment and positive outcomes in the middle school transition when compared to students who receive less support (Taylor et al., 2002).

Positive effects of character education are not isolated to adjustment and outcomes during the middle school transition. When students start high school with higher levels of social-emotional competence, they have higher GPAs, greater academic and athletic confidence, and higher levels of self-worth (Qualter, Whiteley, Hutchinson, 2007).[78] Thus, character education in middle school can support students in the present and build social-emotional competence for the future.

Middle school students can also benefit from opportunities to explore different career pathways. When participating in a one-week career exploration program, at-risk middle school students saw greater connection between interests and careers, and started to have more confidence in their career pathways (O'Brien, Dukstein, Jackson, Tomlinson, & Kamatuka, 1999).[79] As another example, after participating in a computer-based, career exploration program, middle school students felt more confident about career exploration and the connection between schools and careers (Turner & Lapan, 2005).[80] Finally, students who learned about different careers from interviews with professionals had higher career interest compared to students who did not participate (Wyss, Heulskamp, & Siebert, 2012).[81] Thus, career exploration programs offer middle school students opportunities to build career interest and confidence.

In addition to career exploration activities, middle school students can benefit from civics education support. According to the latest National Assessment of Educational Progress (NAEP) report (National Center for Education Statistics, 2011), only 23% of 8th grade students mastered civics concepts with scores unchanged from 2006. In American society, civic knowledge is fading, with fewer people voting and viewing politics as important, which makes civic participation and engagement efforts difficult (Galston, 2001, 2007). Civic knowledge is important for student and citizen understanding surrounding public policies and political events, societal trust, and future political participation (Galston, 2001). Providing additional civic education experiences offers one way to build students' civic knowledge and interest in politics (Galston, 2001, 2007).

When schools implement civic education initiatives, middle school students can achieve at higher levels. For example, Wilcox (2010) found that high achieving middle schools provide numerous opportunities for students to gain civic experience and education through various community partnerships (e.g., students take senior citizens to prom, businesses "adopt a school").[82]

There are also several research-based practices for civic education. For example, researchers emphasize the importance of educating students in a positive climate that discusses political issues, such as voting and elections, and providing opportunities for students to participate in school-based organizations or service (Galston, 2007; Wilcox, 2010).

Ultimately, character education in middle school can positively influence adolescent behavior, problem solving, and adjustment. Likewise, career exploration activities can provide middle school students with opportunities to investigate different career pathways, building career interest and confidence. Finally, middle school students need additional civic education opportunities, which can lead to greater societal involvement and engagement.

LEARNING FOR LIFE'S MIDDLE SCHOOL PROGRAM

Learning for Life's middle school program includes 44 integrated language arts lessons across three main topic areas: character education, career education, and citizenship. Students study four character education traits—respect, responsibility, honesty/trust, and self-discipline—while also learning about relationship-building (e.g., problem solving, communication skills).

The career exploration component offers instruction in time management, goal setting, and career exploration opportunities. For example, Learning for Life offers students chances to explore different career options through applied lessons and encourages students to interview adults in careers of interest.

Middle school civics lessons provide students with opportunities to discuss freedom, liberty, laws, separation of powers, and diversity. For example, in a lesson on justice, students dissect a court case and the lesson encourages learning extensions by visiting a local courthouse.

High School

Character education programs can positively influence high school student outcomes. For example, when high school students participate in character education programs emphasizing social-emotional skills and morality, students have greater awareness and understanding of social-emotional and moral issues, greater academic confidence, and positive behavior (e.g., more prosocial behaviors, fewer discipline referrals) (Hahn et al., 2007; Holtzapple et al., 2011; Romanowski, 2005; Qualter, Whiteley, Hutchinson, & Pope, 2007).[83] Furthermore, one study suggests that when high schools provide social-emotional instruction, schools can see a decrease in violent behavior (Hahn et al., 2007).[84]

By building social-emotional competence in high school, teachers set the stage for college success and persistence. Studies suggest that first-year college students with higher levels of social-emotional competence have greater academic success in higher education and are more likely to stay in college after their first year (Parker, Hogan, Eastabrook, Oke, & Wood, 2006; Parker, Summefeldt, Hogan, Majeski, 2004).[85,86]

In addition, moral education can potentially support students' moral understanding and development (e.g., Bajovic, Rizzo, & Engemann, 2009; Berkowitz, 2002; Berkowitz & Bier, 2004). In a meta-analysis of studies examining the effectiveness of moral education, Schlaefi and colleagues (1985) found that moral education promotes moral reasoning. The study also showed that programs that explicitly utilize moral dilemma discussions are more effective than programs without an explicit focus (Schlaefi et al., 1985).[87]

When providing moral dilemma instruction, there are several best practices for use with high school students. First, students need time to reflect on moral dilemmas, especially when they disagree with the ethical perspective (Berkowitz, 2002). Second, students can learn more from moral dilemma discussions if there are a wide variety of classroom perspectives. As a result, teachers might provide richer learning opportunities if they pair students in mixed belief groups when discussing moral dilemmas (Berkowitz, 1985).

In addition to moral education instruction, high school students can benefit from lessons and activities designed to build career and college knowledge and awareness; research suggests that high school adolescents need this additional support. Consider the following statistics:

- 81% of high school dropouts desire more real-world opportunities in their school and request a clearer association between school and careers (Bridgeland, Dilulio, & Morrison, 2006).
- 88% of middle and high school students are unaware of how information they learned in school relates to future careers and career pathways (Johnson, 2000).
- When asked about their desired career, 87% of middle and high school students show minimal awareness of what is involved (Johnson, 2000).

Research suggests that some students want college and career experiences in high school.

- Over 50% of middle and high school students request career instruction in schools (Johnson, 2000).
- 70% of juniors believe high school work experiences would prepare them for the workforce (Phillips, Blustein, Jobin-Davis, & White, 2002).
- 10th through 12th graders want more information about career opportunities in schools and 12th graders request work experiences and better career counseling (Witko, Bernes, Magnusson, & Bardick, 2005).

When considering these findings, two points are evident. First, students want to understand relationships between schooling and careers. Second, students need additional career support and instruction.

Programs that include career awareness components can positively influence students' college and career pathways. For example, students participating in career education programs during high school demonstrate decision-making improvements, greater confidence in career-related tasks, more positive beliefs surrounding their career future, and more positive career expectations compared to students who do not participate (McWhirter,

Rasheed, & Crothers, 2000).[88] Once students leave school and start careers, students who participated in career education have more positive perceptions of job quality, greater career preparedness beliefs, and more positive outlooks about career pathways (Gore, Kadish, & Aseltine, 2003).[89] Additionally, students in career education and mentoring programs are more likely to take the ACT/SAT, graduate from high school, and attend college (Neumark & Rothstein, 2003; Visher, Bhandari, & Medrich, 2004).[90,91]

One way to further support high school student's college readiness is through programs that seek to build students' knowledge about college, including information on college admission, options for payment, academic requirements, and key differences between K-12 and higher education. This type of knowledge can be particularly relevant for students without college role models and offers one way to improve individuals' interest and engagement in school, while also preparing them for higher education (Hooker & Brand, 2010). In providing college knowledge, supportive classroom and school environments, and school-career connections, schools can realize a multitude of positive outcomes, such as higher academic achievement and graduation rates, better college planning, and a higher likelihood of employment after high school (Hooker & Brand, 2009; Roderick, Coca, & Nagoka, 2011).[92]

In addition, high school students can benefit from a particular form of civics education—service learning. Greater participation in service learning activities predicts greater participation in future societal activities, with more service learning experiences predicting higher levels of civic knowledge and a higher likelihood of voting and community service in adulthood (Galston, 2001; Hart, Donnelly, Youniss, & Atkins, 2007).[93,94] Furthermore, when students have greater voice and leadership roles in service learning, they experience more positive outcomes, including feeling more confident, having a greater desire to make a difference, paying more attention to politics, and having more positive attitudes toward others (Morgan & Streb, 2001).[95]

Another method of supporting high school student interpersonal and intrapersonal success involves education in life skills such as self-discipline, which supports readiness for the future and is linked to important life outcomes. Duckworth and Seligman (2006) find that females typically have higher self-discipline and that, in turn, students with higher levels of self-discipline have a higher GPA.[96] Furthermore, self-discipline is a better predictor (compared to IQ) of GPA, admission to high school, time spent on homework, time spent watching television, and time of day students begin homework (Duckworth & Seligman, 2005).[97]

Additionally, life skills instruction in money management and social skills can promote positive outcomes. In one study by Donohue and colleagues (2005), students who participated in money management training had more knowledge and skills after participation. Students viewed learning about investments, budgeting, and credit as particularly helpful.[98] As a result, money management training offers one pathway to building student awareness of future life scenarios. In terms of social skills, Sarason and Sarason (1981) reported that when high school students participated in a social skills intervention, they provided a larger number of solutions and effective alternatives to consider in problem-solving situations, were rated higher by a job interviewer, and had better eye contact during a job interview (compared to a control group).[99]

Overall, high school students can benefit from instruction in a wide array of topic areas. Studies suggest character education improves student interpersonal, intrapersonal, and academic outcomes. Additionally, moral dilemma discussions can promote moral reasoning. College and career awareness activities offer career exploration and college knowledge opportunities.

Service learning discussions and activities potentially encourage students to actively engage in their community, building civic knowledge and future civic participation. Finally, life skills training can set a foundation for future success, through review of various skills such as self-discipline, money management, and social skills.

LEARNING FOR LIFE'S HIGH SCHOOL PROGRAM

Learning for Life's program includes 83 lessons in high school, divided into two books, "A Personal Compass for Daily Living" and "A Roadmap for the Future."

"A Personal Compass for Daily Living" includes character education (i.e., perseverance, honesty, respect, compassion, courage, self-control, responsibility, love of country), service learning (e.g., community service projects and discussions), and explicit moral discussions (e.g., moral dilemmas surrounding jury duty and workplaces). Through integrated language arts lessons, students discuss, actively engage in, cooperatively examine, and independently investigate different concepts. For example, in a character education lesson, high school students read a story and discuss honesty and dishonesty through debates and reflective questioning.

"A Roadmap for the Future" includes career education, college knowledge, and life skills instruction. Students learn various aspects of college knowledge (e.g., financing college education, choosing classes) and participate in career education activities (e.g., learning about job interviews, job interests, and aptitudes). Additionally, students can build life skills in a variety of lessons (e.g., self-discipline, money management, effective communication skills). For example, in a self-discipline lesson, teachers encourage students to reflect on areas of personal improvement in their school, home, and personal lives.

Learning for Life includes several research-based components and instructional strategies for grades K-12

Learning for Life includes several research-based components and instructional strategies for grades K-12: Common Core and state standards integration, a focus on student mastery and distributed learning, active and cooperative learning activities, explicit instruction, and teacher training resources. The following sections detail the research base behind each component or instructional strategy.

Common Core and State Standards Integration

Curriculum standards and state laws advocate for the importance of character education. For example, in Kentucky, schools ask students to understand conflict-resolution strategies, and in Utah English classrooms, students consider perspective taking and empathy (Stiff-Williams, 2010). Furthermore, 18 states currently mandate character education in schools and 18 encourage character education (see Figure 1 on the following page) (Character Education Partnership, 2014a). Because of these mandates, schools need effective character education tools.

"Teachers, principals, and parents will understandably ask, how can we think of attempting to squeeze a new emphasis, such as character education, into the already packed standards curriculum…There is, however, a solution: fuse the teaching of character with the routine instruction of mandated state standards." (Stiff-Williams, 2010, p. 116)

Integrated character education programs offer one solution and are important for quality implementation. Teachers need to believe they can effectively integrate character education programs into their current routine (Durlak & DuPre, 2008) and students believe integrated character education programs are more effective (Romanowski, 2003). When teachers are unable to implement character education programs effectively, many cite a lack of time as a barrier (Hahn, Noland, Rayens, & Christie, 2002; Mihalic, Fagan, & Argamaso, 2008). With so many initiatives and standards to address, adding an outside program might seem daunting. However, integrating character education with Common Core and state standards offers time to address multiple objectives at once (Stiff-Williams, 2010).

Teachers can effectively integrate character education lessons into their instruction. For example, language arts, social studies, science, and history classes can incorporate social-emotional discussions if teachers find ways to weave topics together (Cohen, 2006; Duran, Yaussy, & Yaussy, 2011). When teachers integrate character education, students can benefit. For example, several studies suggest integrated character education programs positively impact intrapersonal outcomes (e.g., lower depression rates, less aggression), classroom/school outcomes (e.g., supportive class and school climates), interpersonal outcomes (e.g., greater peer concern for others), academic achievement, and attendance (e.g., Jones et al., 2010; Marshall, Caldwell, & Foster, 2011; Munoz & Vanderhaar, 2006).

Character Education Legislation by State
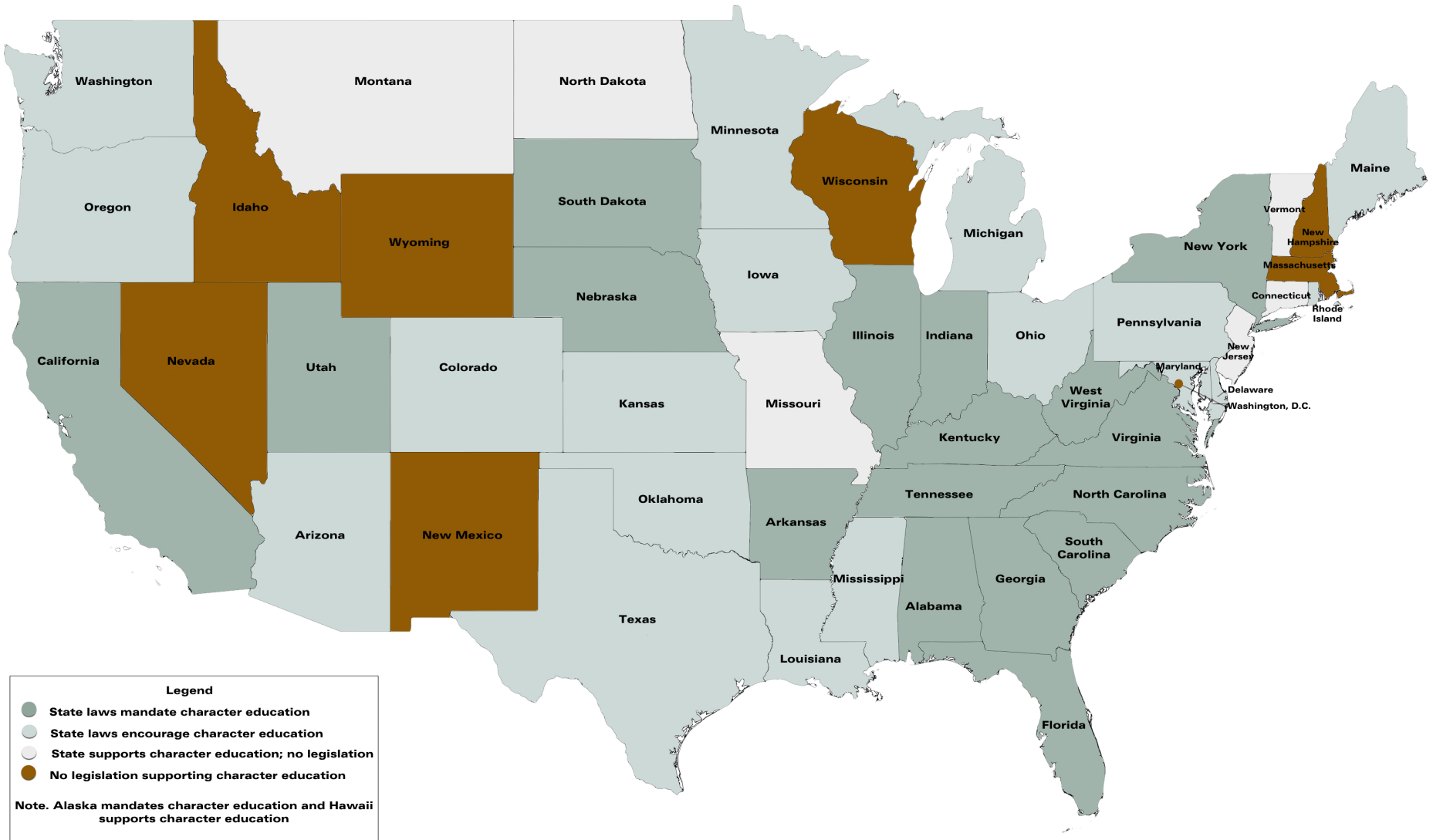
Figure 1. Character education legislation by state (Data source: Character Education Partnership, 2014a)

Legend
- State laws mandate character education
- State laws encourage character education
- State supports character education; no legislation
- No legislation supporting character education

Note. Alaska mandates character education and Hawaii supports character education

Curriculum standards and legislation emphasize the importance of character education in schools across the country. Integrating character education into traditional instruction allows for simultaneous topic coverage, higher implementation, and beneficial student outcomes.

> **LEARNING FOR LIFE IS ALIGNED TO COMMON CORE AND STATE STANDARDS**
>
> *Program developers aligned Learning for Life's Integrated Academic and Character Development program to Common Core and state curriculum standards (i.e., Alaska, Minnesota, Nebraska, Texas, Virginia), providing teachers time to address two topics simultaneously.*
>
> *Additional information on standards alignment is available at the following web address:* http://learning.learningforlife.org/resources/standards-alignment/

A Focus on Student Mastery and Distributed Learning

Students have two types of motivational goal orientations—performance and mastery. When students have performance goals, they compare themselves with others. Students who strive to meet performance goals want to be seen favorably and continually aim to achieve at higher levels. If students with performance goals fail, they see it as evidence of unintelligence or inability (Dweck, 1986; Dweck & Leggett, 1988; Meece, Anderman, & Anderman, 2006; Urdan & Schoenfelder, 2006). By contrast, students with mastery goals strive for learning and self-improvement. They see challenging tasks as opportunities to learn something new and are intrinsically interested in learning concepts. Students with mastery goals see unsolved problems as challenges and are not disheartened by failure (Dweck, 1986; Dweck & Leggett, 1988; Meece et al., 2006; Urdan & Schoenfelder, 2006). When students have mastery goals compared to performance goals, they are more likely to engage and persist in academic tasks, use effective study strategies, understand content at a deeper level, have positive classroom attitudes, and be less concerned with failure (Ames, 1992; Ames & Archer, 1988; Meece et al., 2006).[100]

Teachers can encourage student mastery goals over performance goals by taking the following actions:
- helping students see assignments as relevant and personally meaningful (Ames, 1992);
- offering students challenging tasks (Urdan & Schoenfelder, 2006);
- giving students opportunities to take responsibility for learning and allowing student independence and decision-making (Ames, 1992; Urdan & Schoenfelder, 2006);
- focusing on student mastery and improvement over peer comparison (Ames, 1992; Urdan & Schoenfelder, 2006);
- commending students for effort and providing chances to improve (Ames, 1992; Urdan & Schoenfelder, 2006); and
- remembering that grading on the curve, recognizing only the highest achievers, or only emphasizing correct answers over the process for getting the correct answer are all harmful to student mastery goals (Urdan & Schoenfelder, 2006).

In addition to the benefits of mastery goals, it is helpful for students to distribute learning over time. Students who review materials over time have better memory compared to students who practice or review in a small, isolated amount of time (Cepeda, Pashler, Vul, Wixted, & Rohrer, 2006; Donovan & Radosevich, 1999).[101,102] There is also an optimal amount of time between review sessions. If students want to remember material for a year, they should master content and wait 3-4 weeks before a second review. Thus, if students desire long-term retention, monthly review would be beneficial (Cepeda, Vul, Rohrer, Wixted, & Pashler, 2008; Cepeda, Coburn, Rohrer, Wixted, Mozer, & Pashler, 2009).

Instructional programs should incorporate two best practices—encouraging students to work toward mastery goals and allowing for distributed learning over time. Research suggests student mastery goals and opportunities for distributed review positively predict student motivation and retention.

> **LEARNING FOR LIFE'S PROGRAM SUPPORTS STUDENT MASTERY AND DISTRIBUTED LEARNING**
>
> *Learning for Life provides students with opportunities to master content in online quizzes (e.g., students cannot progress forward until selecting the correct answer) and recognizes students for mastering online program modules. Students receive recognition based on individual achievement and are not compared to peer progress or performance.*
>
> *The program also allows for distributed review. Students have the opportunity to revisit any lesson online, and teachers can re-assign different lessons for review. Additionally, content coverage overlaps across standards and themes, allowing students multiple opportunities to revisit and master material (e.g., students participate in online activities that supplement classroom instruction in the same topic or theme; third grade students have numerous opportunities to practice different Common Core standards, such as describing the main idea of a text).*

Inclusion of Active and Cooperative Learning Activities

Active learning opportunities are key for character education, as students need to practice what they learn (e.g., conflict resolution, empathy) (Berkowitz, 2002; Cohen, 2006). Active learning provides students with direct experiences, rather than being lectured on how something works, resulting in deeper understanding (Burenheide, 2012) and potential behavior change (Parmer, Salisbury-Glennon, Shannon, & Struempler, 2009).[103] Furthermore, active learning opportunities are more effective when teachers provide some level of assistance or support. For example, unassisted active learning results in poorer outcomes compared to explicit instructional methods, whereas assisted active learning (e.g., guidance and feedback throughout learning experiences) results in more positive outcomes compared to other instructional techniques (Alfieri et al., 2011).[104] Thus, students can benefit from opportunities to actively engage in character education lessons, while also receiving teacher support and guidance.

Additionally, cooperative learning activities positively influence student outcomes. According to a meta-analysis of 65 studies, when students work together in small groups on a task, they have greater learning outcomes compared to whole group instruction (Kyndt et al., 2013). Students in small, cooperative learning groups also have higher achievement and more positive

attitudes (Kyndt et al., 2013).[105] Though teachers cannot exclusively use cooperative learning activities, the inclusion of these activities can support positive outcomes.

By incorporating both active and cooperative learning activities in classroom instruction, students have opportunities to engage deeply in content, gain positive attitudes, learn more information, and achieve at higher levels.

LEARNING FOR LIFE PROVIDES ACTIVE AND COOPERATIVE LEARNING OPPORTUNITIES

Learning for Life provides a multitude of active and cooperative learning experiences. With respect to active learning, students encounter multiple direct learning experiences (e.g., high school students learn about the benefits of service learning by planning and participating in a community service project). Additionally, students have multiple opportunities to engage in cooperative learning (e.g., 5th grade students break into cooperative learning groups to discuss different decision-making situations).

Explicit Instruction

To be effective, character education programs should explicitly educate students in character traits and social skills. Explicit instruction in specific skills makes a difference and predicts increases in student well-being, competence and social skills; decreases in conduct problems and student distress; and increases in student achievement (Ashdown & Bernard, 2012; Durlak et al., 2011; Parker, Nelson, & Burns, 2010; Payton et al., 2008).[106,107,108,109]

Moreover, research-designated SAFE (Sequenced, Active, Focused, Explicit) character education programs (i.e., they contain connected and sequenced activities, active learning opportunities, coverage of at least one intrapersonal or interpersonal skill, and address specific social-emotional skills rather than general positivity) are more effective compared to character education programs without SAFE components (Durlak et al., 2011; Payton et al., 2008). Studies suggest that students who participate in SAFE programs have greater social-emotional skills, more positive social attitudes, more positive interpersonal interactions, fewer conduct problems, less emotional distress, and higher academic achievement (Durlak et al., 2011; Payton et al., 2008).[110,111] Taken together, character education programs—especially those that are comprehensive, active, specific, and explicit in instruction—can make a difference.

LEARNING FOR LIFE USES EXPLICIT INSTRUCTION

Learning for Life includes explicit social-emotional skill instruction, focusing on specific character traits rather than general positivity. For example, in a 4th grade empathy lesson, students role-play different scenarios and emotional responses, followed by, a discussion on feelings.

Teacher Training

Finally, character education programs should provide training. Research suggests that teachers and staff need training to sustain initiatives over time (Gomez & Ang, 2007) and to promote character education program effectiveness (Berkowitz & Bier, 2005; Mihalic, Fagan, & Argamaso, 2008).

LEARNING FOR LIFE OFFERS TEACHER TRAINING

Learning for Life provides free, online training to teachers at all program levels. Online training modules provide teachers with a program overview, an opportunity to test understanding, and an option to watch a lesson plan taught in a model classroom.

Below is a link to the online training modules: http://learning.learningforlife.org/services/prek-12-training/educator/

Strengthening positive outcomes: The importance of optimal implementation

> *"The level of implementation achieved is an important determinant of program outcomes. Achieving good implementation not only increases the chances of program success in statistical terms, but can also lead to much stronger benefits for participants." (Durlak & DuPre, 2008, p. 334)*

To maximize the effectiveness of character education programs, schools must ensure high implementation fidelity, meaning that the full program is delivered to schools as it was intended (Berkowitz & Bier, 2004). When schools implement character education programs with low fidelity, researchers find no impacts on student outcomes (Durlak et al., 2011; Hanson, Dietsch, & Zheng, 2012; Social and Character Development Research Consortium, 2010)[112,113,114] or they cite mixed findings (Hallam, 2009).[115] By contrast, when schools implement character education programs with high fidelity, there are greater student outcomes, such as higher social-emotional skills and attitudes and higher student achievement when compared to schools with lower implementation fidelity (Berkowitz & Bier, 2005; Durlak & DuPre, 2008; Durlak et al., 2011; Hooker & Brand, 2009; O'Donnell, 2008).[116,117,118]

While schools should strive to maintain fidelity, they should also allow for adaptability. When schools modify character and social-emotional education programs to fit within their needs and values, schools see more positive student outcomes, presumably because adaptability allows teachers to modify programs to meet specific community needs (Durlak & DuPre, 2008; Romanowski, 2005).

In addition, quality program implementation makes a difference. When schools embrace character education programs through a school and community model, research suggests there can be positive effects on student achievement. Examples of quality program implementation include involving parents and community members, promoting values throughout the school day, having staff model positive values, and creating a supportive school environment for character education (Benninga, Berkowtiz, Kuehn, & Smith, 2003).[119]

Based on the character education research concerning implementation fidelity and quality, I offer the following guidelines for optimal program implementation:

> **GUIDELINE #1**
> Schools should implement character education programs over an extended period.

Character education programs must be more than a one-time effort. Studies suggest that the effects of social-emotional and character education programs grow weaker as distance increases between the last day of implementation and the present (Sklad et al., 2012).[120] By contrast, when schools use programs over extended periods, students see stronger impacts with each successive year of program use (Battistich et al., 1989; Farrell et al., 2003; Schlaefi et

al., 1985; Snyder et al., 2012; Taylor et al., 2002).[121,122,123,124] Furthermore, character education should be an ongoing school and community initiative, with schools recognizing that growth will not occur overnight (Anderson, 2000; Berkowitz & Bier, 2005). To change the student, classroom, and school culture, schools must embrace character education as a long-term effort, strengthened by the cooperation of several different parties, including classrooms, whole schools, and surrounding communities.

GUIDELINE #2

Students need positive teacher role models and supportive classroom environments.

Students learn an extensive amount from observing adult role models, such as teachers (Anderson, 2000; Bajovic, Rizzo, & Engemann, 2009; Bulach, 2002; Berkowitz, 2002). Because of this close observation, teachers should model appropriate prosocial behaviors, which relate to positive prosocial and moral development in students (Solomon, Watson, & Battistich, 2001).

In addition to the importance of modeling appropriate behaviors, classrooms and schools should provide nurturing and supportive environments. In elementary school, students need to see their classroom and school as caring. Studies suggest greater teacher emotional support in elementary school predicts less student aggression and higher levels of self-control (Berkowitz & Bier, 2004; Merritt, Wanless, Rimm-Kaufman, Cameron, & Peugh, 2012).[125] In middle school, students need positive and supportive teacher-student interactions, and feelings of school belonging are especially important in high school (Berkowitz & Bier, 2004).

Nurturing, support, a sense of belonging, and safety are especially important before motivating student achievement. Maslow's (1943) Hierarchy of Needs suggests that individuals are motivated to satisfy different types of needs, with the satisfaction of one need leading to satisfaction of another that follows. The five needs (in order from base level) are as follows:

1. Physiological – Individuals have basic needs, such as satisfying hunger and thirst.
2. Safety – Individuals want a sense of security, routine, and predictability.
3. Love – Individuals are motivated by feeling that they belong and are cared about by others.
4. Esteem – Individuals want to achieve, to be independent, to be recognized, and to have high levels of self-esteem and confidence.
5. Self-actualization – At the top of the needs hierarchy is a desire for purpose in life, and, as a result, a desire to do what he or she was meant to do. To reach this level, individuals need to have at least partially satisfied all earlier needs (see Figure 2).

Maslow's Hierarchy of Needs (1943)

Self-actualization

Esteem (e.g., achieve, independence)

Love (e.g., belonging, care)

Safety (e.g., sense of security, routine)
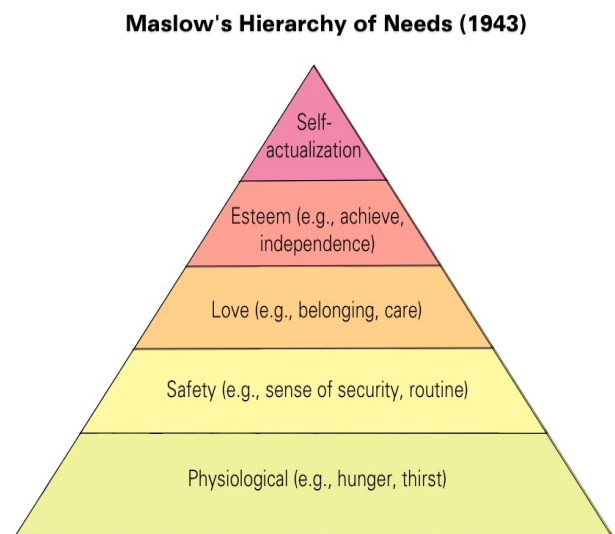
Physiological (e.g., hunger, thirst)

Figure 2. Maslow's Hierarchy of Needs (1943)

In the school environment, Maslow's (1943) model suggests that children must have some level of support at the bottom three levels before they will be motivated to achieve (i.e., esteem need). Students must be fed, feel safe and secure in their schools, and believe that they are cared about and belong before they can focus on achievement (e.g., Hutchinson, 2003).

In other words, for optimal implementation, teachers must be positive role models, while also offering students supportive, nurturing, and safe environments.

> **GUIDELINE #3**
>
> Schools should offer safe and supportive environments committed to whole-school implementation of character education.

Quality implementation extends from classrooms to the whole school environment, with schools providing a safe, nurturing, and supportive setting for students (Berkowitz & Bier, 2005b; Cohen, 2006; Gomez & Ang, 2007). School-level support and safety are two important variables. Consider that students in public schools with greater college-going and supportive climates (e.g., staff encourage students to complete college applications) see more positive outcomes (Roderick, Coca, & Nagaoka, 2011). Additionally, higher perceptions of school safety and belonging relate to more positive student outcomes, such as less bullying (e.g., Richard, Schneider, & Mallet, 2012).[126]

"Character education cannot be reduced to a lesson, a course, or a slogan posted on the walls. Instead, character education must become an integral part of school life. Schools must become communities where virtues such as responsibility, hard work, honesty, and respect are taught, discussed and debated, practiced, expected and celebrated." (Romanowski, 2005, pp. 22-23)

In addition to meeting nurturing and safety needs (Maslow, 1943), schools should model the importance of good character (Berkowitz, 2002; Bulach, 2002). All school staff, including the principal, should fully understand the character education initiative, support it, and practice it (Berkowitz & Bier, 2004, 2005; Romanowski, 2005). In higher-performing middle schools, there are supportive whole-school climates whereby teachers model positive relationships with one another (Wilcox, 2010).[127] Furthermore, studies suggest that when principals provide greater character education support, teachers have higher levels of classroom implementation (Holtzapple, 2011).

To ensure that implementation efforts progress in the intended direction, schools should monitor program effectiveness (Cohen, 2006; Hahn et al., 2007). Schools could assess current school climates through surveys or evaluations (Cohen, 2006), which can support sustaining and improving character education initiatives (Gomez & Ang, 2007).

Whole school support is key to quality implementation. Schools should be safe, supportive and nurturing environments, comprised of character education role models at all staff levels. Additionally, schools should ensure that their implementation efforts are progressing as expected by monitoring school climates and implementation.

As Bronfenbrenner's (1977) social-ecological theory of human development suggests, community and parent involvement are important factors in a child's development. Schools, homes, and communities uniquely influence children, and the level of communication between these settings is a critically important variable in child development (for more information on Bronfenbrenner, see Styers, 2013).

Parent and community involvement are also important for quality implementation. Studies suggest schools need multiple levels of support to enhance positive youth development (Gomez & Ang, 2007) with everyone on the same page, modeling the same behaviors and practices (Cohen, 2006). By advocating for support at multiple levels, schools can establish a caring community of learners, consisting of respectful and supportive interactions among teachers, students, and parents; a focus on common goals; numerous opportunities to collaborate and support others; and multiple chances for independence and voice in decision-making. Through creation of a supportive school community, schools can instill higher prosocial beliefs and social-emotional skills in students (Schaps, Battistich, & Solomon, 1997).

When schools recognize the power of parents and community members, schools can see several positive student interpersonal, intrapersonal, and academic outcomes. By working together on character education initiatives, schools embrace the power of a united community.

Conclusion

We frequently hear about the importance of character, as possession of this trait sets the stage for future success. Luckily, character can be taught, leading to a wealth of positive intrapersonal, interpersonal, and academic outcomes (e.g., Durlak et al., 2011; Durlak & Wells, 1997; Sklad et al., 2012).

This foundational research report summarized the research base behind components of Learning for Life's Integrated Academic and Character Development program, first examining research behind Learning for Life's program components at different school levels (i.e., elementary, middle, high) and then explored the research base for program components and strategies across school levels. Finally, this report investigated the research base behind several best practices for optimal program implementation.

In elementary school, Learning for Life's program focuses on character education and personal safety discussions, and incorporates parental involvement. Research suggests character education programs can have positive and significant impacts on elementary school student social and academic outcomes (e.g., greater concern for others – Battistich et al., 1989), and participation can support students as they transition to middle school (Taylor et al., 2002). Additionally, personal safety programs can positively influence elementary students' long-term abuse prevention knowledge (e.g., Davis & Gidycz, 2000; Oldfield et al., 1996; Rispens et al., 1997). Parent involvement is also a key factor in elementary students' character development and academic achievement, and parent-classroom engagement is important for effective instruction (e.g., Adamski et al., 2013).

At the middle school level, Learning for Life emphasizes character trait education, career exploration, and civics education. Character education in middle school has the potential to positively influence student behavior and personal outcomes—such as lower depression rates and higher problem-solving capabilities (e.g., Farrell et al., 2003; Spence et al., 2003)—and can positively impact student adjustment (e.g., Taylor et al., 2002; Qualter et al., 2007). In addition, middle school students can benefit from career exploration opportunities, which build student career interest and confidence (e.g., O'Brien et al., 1999; Wyss et al., 2012). Finally, students at this level can benefit from civics education experiences that build knowledge, achievement, and societal engagement (e.g., Galston, 2001, 2007; Wilcox, 2010).

For high school, Learning for Life program developers provided instruction in five key areas: character trait education, moral education, civics education through service learning opportunities, career and college awareness building, and life skills instruction. Character education instruction can be an effective tool for building high school students' social-emotional skills, social-emotional awareness, confidence, and positive behavior (e.g., Hahn et al., 2007), as well as supporting students in the college transition (e.g., Parker et al., 2006). Moral discussions can help build moral understanding and development, exposing students to conflicting viewpoints (e.g., Bajovic et al., 2009; Berkowitz, 1985). Additionally, high school students can benefit from instruction in college and career awareness (e.g., Witko et al., 2005), which research suggests relates to positive outcomes, such as higher academic achievement and better college planning (e.g., Hooker & Brand, 2009; McWhirter et al., 2000). Furthermore, students can benefit from civics education through service learning discussions and

experiences, which predict a higher likelihood of voting and future civic participation (e.g., Hart et al., 2007). Finally, life skills instruction can provide students at this level with a foundation for future success (e.g., Duckworth & Seligman, 2005).

In all grade levels, Learning for Life includes several research-based components and strategies that positively predict student and program outcomes:

- *Common Core and state standards integration* – Integrated character education program participation can positively impact students' intrapersonal, interpersonal, academic, and classroom/school outcomes (e.g., Jones et al., 2010; Marshall, Caldwell, & Foster, 2011; Munoz & Vanderhaar, 2006).
- *A focus on student mastery and distributed learning* – Student mastery can encourage engagement and persistence (e.g., Ames, 1992; Ames & Archer, 1988) and distributing learning can lead to longer retention (e.g., Cepeda et al., 2006; Donovan & Radosevich, 1999).
- *Inclusion of active and cooperative learning activities* – Active and cooperative learning opportunities supplement traditional instruction and can positively impact student achievement, understanding, and attitudes (e.g., Burenheide, 2012; Kyndt et al., 2013).
- *Explicit instruction* – Explicit instruction can build student understanding and improve student outcomes (e.g., higher student well-being and achievement; Ashdown & Bernard, 2012; Durlak et al., 2011).
- *Teacher training* – Teachers need program training to sustain character education efforts and improve program effectiveness (e.g., Berkowitz & Bier, 2005; Gomez & Ang, 2007).

Finally, character education programs must have high levels of implementation fidelity and quality for maximal program effectiveness. Based on the available research, I offered the following guidelines for optimal program implementation:

1. Schools should implement character education programs over an extended period.
2. Students need positive teacher role models and supportive classroom environments.
3. Schools should offer safe and supportive environments committed to whole-school implementation of character education.
4. Schools should seek community and parental support to maximize implementation of character education programs.

Overall, Learning for Life provides schools with a research-based, grade-specific, and integrated character education program. Schools can realize a multitude of positive outcomes, when maximizing program implementation and remembering that it takes a group effort to fully embrace a character education program.

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The Learning for Life Champions™ Foundational Research Base

December 8, 2014

Executive Summary

Students with disabilities comprise a heterogeneous group of individuals with varied backgrounds, experiences, and support needs. As a result, these students require a curriculum that is responsive to their diversity.

This foundational report summarizes the research behind components of Learning for Life's Champions™ program, which provides instruction in daily living skills and career transition to students with disabilities. The report highlights research underlying the need for and effectiveness of instruction in daily living skills, career transition support, and certain instructional strategies for students with disabilities.

Learning for Life's Champions™ provides instruction in daily living skills

Students with disabilities have a range of needs related to life skills such as dressing and meal preparation, human growth and development, nutrition and wellness, and personal safety. When student needs are met, and students have greater independence and daily living skills, they can have more positive academic, career, and independent living experiences after high school (e.g., Test et al., 2009).

Within the topic of human growth and development, instruction in social skills can be beneficial. For example, students with disabilities who possess more social skills have better behavior and more positive social interactions compared to their peers with less social skills (e.g., Gansle, 2005; Kam, Greenberg, & Kusché, 2004).

Similarly, within personal safety, abuse prevention programs can help. Studies find that when students with disabilities

participate in abuse prevention programs, they have greater prevention knowledge compared to peers who do not participate (e.g., Kim, 2010).

Learning for Life's Champions™ provides instruction in career transition skills

College is not an option for some students with disabilities, signifying the importance of career transition education (e.g., Carter, Brock, & Trainor, 2014). When high schools meet students' career experience needs, studies suggest students with disabilities have more positive career and academic outcomes (Test et al., 2009). As an added benefit of career-related instruction in one topic, self-determination, students with disabilities might be more equipped at setting goals and solving problems (e.g., Agran, Blanchard, Wehmeyer, & Hughes, 2002).

Learning for Life's Champions™ uses several research-based instructional strategies

Certain research-based instructional strategies— hands-on learning, student recognition, transition assessments, and flexible and adaptable programs—can enhance the learning experiences of students with disabilities. Specifically, hands-on learning can foster student understanding and achievement (e.g., Cass, Cates, Smith, & Jackson, 2003; Scruggs, Mastropieri, Bakken, & Brigham, 2003), and student recognition opportunities can support positive behaviors and greater motivation (e.g., Witzel & Mercer, 2003). Additionally, transition assessments can provide information on student mastery levels and areas for improvement related to students' daily living, career, and academic skills (e.g., Test, Smith, & Carter, 2014). Finally, flexible and adaptable programming

can provide responsive educational content to students with varied needs (e.g., Snow, Wallace, & Munro, 2001).

Summary

Students with disabilities possess a wide array of needs, necessitating the importance of a responsive curriculum. Learning for Life's Champions™ aims to empower children and adolescents with disabilities through a diverse curriculum that guides students toward success, independence, and self-sufficiency.

Acknowledgements

Introduction

> *"Rather than looking at generalized academic standards, which are in part based on the knowledge that is required for post-secondary education, curriculum designed for students with disabilities should more closely reflect the ecology of the individual environments in which these students live and will live. This would mean comprehensive local level plans to identify those skills that would provide a student with the greatest opportunities to access the least restrictive services (e.g., competitive or supported employment, independent or group living, community leisure activities)." (Ayres, Lowrey, Douglas, & Sievers, 2011, p. 17)*

Education should be instructionally responsive to the unique needs, strengths, and interests of students with disabilities during and after high school (Ayres et al., 2011; Individuals with Disabilities Education Act, 2004; U.S. Department of Education, 2007). Student Individual Education Programs (IEPs) mandate instructional responsiveness. When students with disabilities turn 16, their IEP must include information on postsecondary transition needs in the areas of training, education, employment, and independent living (Individuals with Disabilities Education Act, 2004; U.S. Department of Education, 2007, 2014).

Identifying postsecondary transition needs is important because students will follow different pathways. Research suggests transition and postsecondary outcomes vary considerably within and between disability categories (Grigal, Hart, & Miglore, 2011; Test, Smith, & Carter, 2014). For example, students with intellectual disabilities are less likely to attend college or participate in competitive careers, less likely to have a paying job, and less likely to earn more than $5.15 hourly compared to students with other disabilities (Grigal, Hart, & Miglore, 2011).[128] Additionally, some students might require support in the area of independent living. For example, 49% of students with mental retardation, 46% of students with autism, and 41% of students with disabilities plan to live on their own in the future, without supervision (Wagner, Newman, Cameto, Levine, & Marder, 2007). As a result, schools should take individual student needs into consideration, supporting students in leading independent, adult lives after high school, if possible. A strictly standards-based, academic curriculum does not provide this level of support for independence (Ayres et al., 2011; Clark, Field, Patton, Brolin, & Sitlington, 1994; Spann, Kohler, & Soenksen, 2003).[129]

Parents, teachers, and community members agree that students with disabilities need more than an academic curriculum, emphasizing the importance of life skills training in fostering independence and positive outcomes. Members of these groups identify social skills, communication skills, human growth and development topics, and other life skills as areas of curriculum need for students with intellectual disabilities, developmental disabilities, and autism spectrum disorders (Dowrick, 2004; Spann, Kohler, & Soenksen, 2003). Additionally, teachers of students with severe learning disabilities note that life skills training would equip their students with self-help skills, resulting in a greater likelihood of future employment, greater social skills, and higher quality of life (Rahamin, 1997).

Learning for Life Champions™ provides life skills and career transition instruction for students with disabilities. The Champions™ Daily Living Skills program includes 62 lessons for students with cognitive and developmental disabilities in the following 12 topic areas:

- Safety
- Calendar use
- Parts of the body
- Grooming
- Self-concept
- Clothing care
- Dressing
- Human growth and development
- Nutrition
- Wellness
- Table manners
- Meal preparation

Lessons include various adaptations and accommodations for different student needs, time for guided practice, active learning activities, and assessment opportunities for every lesson.

The Champions™ Transition to Work program aims to prepare high school-age students with disabilities for the workforce, through 24 lessons in the following six topic areas:
- Managing finances
- Decision-making skills
- Vocational opportunities
- Planning and preparation
- Mental skills needed for good work habits
- Seeking a job

Similar to the Champions™ Daily Living Skills program, the Champions™ Transition to Work program includes active learning, reflection, and assessment opportunities in each lesson. Both programs incorporate recognition strategies (e.g., honor wall chart, stickers for completion of lessons) and involve parents.

This foundational research paper includes existing research on components included within Learning for Life's Champions™ Daily Living and Transition to Work programs.[130] The paper details research behind instruction in daily and independent living skills; research supporting instruction in transition and career skills; and research underlying Learning for Life instructional strategies. Throughout the document endnotes provide additional background, including information on study design, analyses, and effect sizes.[131]

Learning for Life's Champions™ provides instruction in daily living skills

Learning for Life's Champions™ Daily Living program provides instruction in various life skills for daily, independent living. The following section details data from research on daily living skills needs and on instructional programs designed to meet such needs.

Life Skills

Studies suggest that students with disabilities have a need for daily living or life skills instruction. For example, in a study of elementary and middle school students with disabilities, only 24% performed at a high level on functional skills (e.g., reading signs, telling time), 64% performed at an average level, and 12% performed at a low level (Blackorby et al., 2005).[132] In another study, 66% of adolescents with disabilities performed poorly on self-care skills (e.g., eating, getting dressed), 71% scored poorly on social interactions (e.g., use of language), and 76% scored poorly on overall independence (Wagner, Newman, Cameto, & Levine, 2006).[133] When students with disabilities have higher independence and daily living skills, research suggests they have more positive academic, career, and independent living experiences after high school, emphasizing the importance of life skills instruction to meet student needs (Test et al., 2009).[134]

Specific Subtopics

Life skills instruction can encompass a wide variety of topic areas, such as dressing and meal preparation, human growth and development, nutrition and wellness, and personal safety.

Dressing and Meal Preparation

Some students with disabilities lack skills related to dressing and meal preparation. For example, Blackorby et al. (2005) reported that 76% of elementary and middle school students with disabilities are proficient at self-care and can feed themselves and get dressed independently, but 22% score in an average range, and 2% score poorly.[135] Furthermore, only 3% of elementary and middle school students with disabilities are proficient at various household responsibilities (e.g., making a meal, cleaning, doing laundry), whereas 37% perform at an average level, and 60% perform poorly (Blackorby et al., 2005).

However, recent research suggests that schools can meet student needs related to dressing and meal preparation through additional instruction. For example, Graves, Collins, Schuster, and Kleinert (2005) found that students with moderate disabilities could be taught to cook simple meals for themselves with 100% mastery.[136]

Human Growth and Development

Within the topic of human growth and development, two areas—social skills, and sex and drug education—might be beneficial for students with disabilities.

Social Skills

At a young age, some students with disabilities might be at a social disadvantage. For example, in a study by the U.S. Department of Education (2012), 40-44% of parents reported their preschool-aged children with disabilities experienced difficulty playing with other children and 47-53% of parents reported their preschool-aged children interacted aggressively with peers.[137] Presumably because of these difficulties, Kolb and Hanley-Maxwell (2003) found that parents of students with disabilities emphasized the importance of social skills for their children, including self-awareness, self-control, empathy, and social cooperation.

Studies also suggest that social skill performance can vary by disability. For example, 60% of students with autism spectrum disorders score poorly on social skills compared to 27% of students with learning disabilities and 19% of students with speech impairments (Blackorby et al., 2005).[138] To meet social skill needs, research suggests potential benefits of providing social skills instruction, as students with greater social skills in high school have higher grades (Milsom & Glanville, 2010)[139] and greater academic and career-related success after high school (Test et al., 2009).[140]

When schools teach social skills, there can be positive effects. Multiple studies suggest that social skills programs for students with disabilities are associated with the following benefits:
- less behavior problems and aggression (Gansle, 2005; Kam, Greenberg, & Kusché, 2004)[141,142];
- greater awareness of negative feelings (Kam et al., 2004);
- more positive social skills (Gansle, 2005; Richardson, Tolson, Huang, & Lee, 2009)[143];
- greater use of problem solving strategies (Kam et al., 2004; Richardson et al., 2009); and
- better communication skills and greater empathy (Richardson et al., 2009).

Sex and Drug Education

Some studies suggest that students with disabilities are at risk for alcohol and drug abuse. For example, Emerson and Turnbull (2005) and Hogan, McLellan, and Bauman (2000) report that students with disabilities might be at increased risk of smoking cigarettes and drinking alcohol. The increasing number of students living independently after high school makes it more likely

that students would encounter drug and substance abuse issues (Snow, Wallace, & Munro, 2001). [144,145] This greater risk is especially concerning to educators because cigarette, alcohol, marijuana, or cocaine use in students with disabilities predicts poorer high school outcomes, including lower GPA, a younger age at first sexual intercourse, and a greater likelihood of school dropout (Hollar & Moore, 2004).[146] To prevent these problems, research suggests drug and sex education might be helpful for students with disabilities (Gougeon, 2009; Hollar & Moore, 2004).

Nutrition and Wellness

As adults, some individuals with disabilities have poorer nutritional and wellness habits. The Centers for Disease Control (CDC, 2014) reports that 36% of adults with disabilities are classified as obese compared to 25% of adults without disabilities. Furthermore, according to the CDC (2014), 22% of children and adolescents with disabilities are classified as obese compared to 16% of children and adolescents without disabilities. Studies also suggest students with disabilities are at greater risk for sedentary behavior and poor nutritional choices compared to students in general education (Hogan, McLellan, & Bauman, 2000).[147]

Research suggests that nutrition and wellness programs offer a possible solution to addressing obesity. Specifically, the CDC (2013), suggest that all students with disabilities can benefit from opportunities to participate in wellness programs, including having nutrition goals in IEPs and involving parents in health and wellness initiatives. As evidence, one study by Arnold-Reid, Schloss, and Alper (1997) showed that students with mental retardation could master the importance of nutritional guidelines and meal planning.[148]

Personal Safety

Abuse and bullying prevention are key topics in the area of personal safety.

Prevention of Abuse

Unfortunately, students with disabilities are at greater risk for abuse. Specifically, children and adolescents with disabilities have a greater risk for physical violence, maltreatment, sexual abuse, emotional abuse, and neglect compared to students without disabilities (Baladerian, 1991; Jones et al., 2012).[149] The prevalence of abuse in the general population is 11% compared to 31% in the population of students receiving special education (Sullivan & Knutson, 2000).[150]

One way to confront abuse-related issues is through prevention. Baladerian (1991) suggests that special education staff and parents can benefit from training in abuse recognition and reporting. Students can also benefit. For example, Kim (2010) reported that personal safety programs that teach children and adults with intellectual disabilities protection skills (e.g., saying "no") effectively increase abuse prevention knowledge. Similarly, studies suggest sexual abuse prevention programs for children and adolescents without disabilities increase student knowledge surrounding abuse prevention (Davis & Gidycz, 2000; Rispens, Aleman, & Goudena, 1997).[151,152]

Prevention and awareness of bullying

Bullying can also be a problem that leads to negative outcomes for some students with disabilities. For example, middle and high school students in full-time special education classes have higher levels of bullying, fighting, and victimization compared to peers in general education (Rose, Espelage, & Monda-Amaya, 2009).[153] Furthermore, 77% of parents of children with autism spectrum disorder reported their child was bullied within a 30-day period; and students who were frequent victims (compared to less frequent victims), had higher anxiety, more hyperactivity, a greater likelihood of self-injury, and greater sensitivity (Cappadocia, Weiss, & Pepler, 2012).[154]

One way to address bullying involves information sharing. Parents support the importance of victims telling an adult about being bullied (Sawyer, Mishna, Pepler, & Wiener, 2011) and bullies report that threatening to tell an adult would reduce bullying behaviors (Paul, Smith, & Blumberg, 2012).

Summary

Students with disabilities can benefit from life skills instruction in multiple areas, such as dressing and meal preparation, human growth and development, nutrition and wellness, and personal safety.

LEARNING FOR LIFE'S CHAMPIONS™ TEACHES LIFE SKILLS

Learning for Life's Champions™ addresses life skills topics in 12 different areas, with lessons specific to dressing and meal preparation, human growth and development, nutrition and wellness, and personal safety.

Across 16 clothing care, dressing, and meal preparation lessons, students have opportunities to practice basic dressing skills, such as zipping clothes and identifying clothing for different types of weather; students receive support in basic clothing care, such as determining when clothes are dirty; and students practice basic steps for meal preparation, such as learning kitchen appliances and determining which foods need refrigeration.

In six human growth and development lessons, students learn various social skills and basic sex and drug education. Examples of social skills lessons include how to handle anger and build emotional awareness. Topics related to sex and drug education include understanding basic physical development and affection, discussion of different types of drugs and why they are harmful, and strategies for saying "no" to drugs.

Within six lessons on nutrition and wellness, students learn about food groups, portion sizes, food labels, and the importance of breakfast. Students also practice daily exercise activities and learn about the importance of getting enough sleep.

Finally, within 12 lessons on personal safety, students address multiple topics, including how to prevent abuse and how to identify and report being bullied. One personal safety activity is a short video, Play it Safe, that uses a puppet game show format to educate students on four rules of personal safety (e.g., saying "no" when a child feels uncomfortable). The program also includes an abuse prevention guidebook for parents which provides information on prevalence, signs of abuse, and support resources.

Learning for Life's Champions^{TM} provides instruction in career transition skills

Learning for Life's Champions^{TM} program provides instruction in career transition skills for students with disabilities. The following section details data on the need for career transition skills and offers research behind instruction in career transition skills, including goal-setting and self-determination, for students with disabilities.

Career transition needs

Many students with disabilities follow a career versus college pathway and require career transition support. Consider the following statistics:

- Most teachers of students with intellectual and developmental disabilities (69-74%) believed that neither college nor vocational schools were options for their students after high school (Carter, Brock, & Trainor, 2014).[155]

- Approximately 48% of students with mental retardation, 46% of students with autism, and 54% of students with multiple disabilities reported they would *definitely* or *probably not* complete a 4-year degree after high school (Wagner et al., 2007).[156]

- Approximately 37% of students with mental retardation, 34% of students with autism, and 29% of students with multiple disabilities planned to be financially self-supporting after high school (Wagner et al., 2007).

- Eight years after high school, 59% of students with disabilities reported living independently (Newman et al., 2011).[157]

- After high school, 91% of students with disabilities reported having a job at some point and having an average of four jobs since high school (Newman et al., 2011).

- After high school, 59% of students with disabilities have a savings account, 59% have a checking account, and 41% have a credit card (Newman et al., 2011).

In addition to teacher and student perceptions of need, student strength and need profiles suggest that 80% of students with intellectual and developmental disabilities have complex and diverse needs related to post-school transition planning (Carter, Brock, & Trainor, 2014).

When students with disabilities leave school with their career transition needs met, studies suggest that they achieve more positive outcomes. For example, Carter, Austin, and Trainor (2012) reported that when students with disabilities received instruction in job searches and self-promotion, they were more likely to become employed.[158] Additionally, when students with disabilities left high school with greater career awareness, took career-related courses in high school, or participated in transition programs, they had greater post-high school career and academic outcomes (Test et al., 2009).[159] Finally, when students with disabilities participated in transition planning interventions that taught self-determination, work skills, and other related skills, students had greater success in acquiring and keeping jobs (Cobb & Alwell, 2009).[160]

Teaching goal-setting and self-determination

Self-determination and goal setting skills can be aspects of career transition support. Self-determination is defined as goal choice, expression, planning, evaluation, and modification; and involves self-advocacy and decision-making (Algozzine, Browder, Karvonen, Test, & Wood, 2001). Most special education teachers (60%) believe that self-determination skills prepare students for school and post-school success (Wehmeyer, Agran, & Hughes, 2000), and research suggests that self-determination skills can support students with disabilities in a multitude of ways. For example, Wehmeyer and Palmer (2003) reported that after high school, students with cognitive disabilities who were higher in self-determination (compared to lower) were more likely to report maintaining a bank account, holding a job, and working part- or full-time one year later; and living independently, having job training, and having a job three years later.[161] Additionally, in examining post-high school outcomes for students with disabilities, Test et al. (2009) found that students who had greater self-determination skills (compared to lower self-determination skills) had more positive academic and employment outcomes.[162]

Fortunately, students with disabilities can benefit from instruction in self-determination (e.g., Algozzine et al., 2001).[163] For example, Agran et al. (2002) found that middle school students with disabilities can successfully set goals and solve problems when supported with self-reflection and goal-setting activities.[164]

Summary

Students with disabilities have a need for various transition services, with many students benefiting from career-related support. Educating students in self-determination might offer one method for building positive career and post-secondary skills and outcomes.

LEARNING FOR LIFE'S CHAMPIONS™ TEACHES CAREER TRANSITION SKILLS

Learning for Life's Champions™ program provides instruction in various topics related to career transitions, including information on seeking a job (i.e., looking for a job, applying for a job, interviewing for a job, understanding job regulations and ethics), and aims to build various self-determination and decision-making skills (i.e., asking for help, making good versus bad decisions, considering alternative solutions, and developing personal goals). Students learn how to manage finances and receive instruction in various finance topics, such as budgeting and credit card management. Students also learn about different work opportunities, have opportunities to plan and prepare for potential jobs, and practice job seeking strategies, such as applying and interviewing for jobs.

Learning for Life's Champions™ uses several research-based instructional strategies

Learning for Life incorporates multiple research-based instructional strategies in Champions™. The following section explores supporting research behind four such strategies for students with disabilities: manipulatives and hands-on learning, student recognition, assessment opportunities, and program flexibility and adaptability.

Use of manipulatives and hands-on learning

Studies suggest that manipulatives and hands-on learning in general education can support direct learning experiences, independence, and student confidence (Berkowitz & Grych, 2000; Burenheide, 2012; Janas & Nabors, 2000). These strategies may also be effective for students with disabilities (e.g., McCarthy, 2005; Scruggs, Mastropieri, Bakken, & Brigham, 1993). For example, using manipulatives during math lessons can support students with disabilities in understanding math concepts (e.g., Cass, Cates, Smith, & Jackson, 2003; Styers & Baird-Wilkerson, 2011).[165,166] Additionally, using hands-on instruction compared to text-based learning (e.g., textbooks) can result in higher achievement and understanding for middle school students with emotional and learning disabilities (McCarthy, 2005; Scruggs et al., 1993).[167,168]

Student recognition

"Recognizing students' efforts along the way to achieving a goal helps them strengthen their resolve to complete the task or internalize the learning. As students see the results of working hard, they change their attitudes and beliefs about themselves and their ability to learn. They often become more tenacious and resilient; they will persevere when a task is difficult and success doesn't come immediately. Students' increased sense of competence and control contributes to a positive learning environment and their motivation to learn." (Dean et al., 2012, Kindle Locations 528-532)

There is currently debate on whether the use of rewards leads to greater motivation and interest among students in the general education population (e.g., Cameron & Pierce, 1994; Deci, Koestner, & Ryan, 1999; Eisenberger, Pierce, & Cameron, 1999; Hattie, 2009).[169,170,171,172] However, there is some agreement that verbal praise can be beneficial, particularly when it is specific to accomplishing a task (Cameron & Pierce, 1994; Deci, Koestner, & Ryan, 1999; Hattie, 2009; Hattie & Timperley, 2007; Kluger & DeNisi, 1996).[173,174]

In meeting the needs of students with disabilities, some researchers believe that rewards in the form of recognition and praise can be beneficial. Specifically, research suggests that rewards can foster motivation and encourage appropriate social and academic behaviors (Dean, Hubbell, Pitler, & Stone, 2012; Witzel & Mercer, 2003). By recognizing students for their efforts toward meeting various goals, objectives, or benchmarks, student confidence and achievement can increase (Dean et al., 2012).

When using rewards, researchers offer several suggestions. First, similar to students in general education, when giving rewards to students with disabilities, teachers should focus more on recognizing student actions than on the reward itself. As students become more intrinsically motivated, teachers can use fewer concrete rewards (e.g., medals), focusing more on praising students for achievements (Witzel & Mercer, 2003). Second, teachers should ensure that students with disabilities understand the reasoning behind the reward. Finally, teachers should ensure equity so that students believe their reward is comparable to rewards received by their peers (Dean et al., 2012; Witzel & Mercer, 2003).

Assessment opportunities

When students turn 16, their IEPs must include information on assessments of post-school transition needs related to training, education, employment, and daily living skills (U.S. Department of Education, 2014). One way to address this IEP component is through transition assessments, which can provide insight into students' academic performance, career aptitude, self-determination, and daily living skills (Test et al., 2014). Transition assessments are essential because student needs differ, underscoring the importance of monitoring and assessing individual needs (Carter, Brock, & Trainor, 2014; Patton, Cronin, & Jairrels, 1997).

Program flexibility and adaptability

Students with disabilities are an extensively heterogeneous group of people with varied skills, experiences, and support needs. To address this diversity, Snow, Wallace, and Munro (2001) emphasize the importance of flexible and adaptable programs, with appropriate materials for a wide range of student needs.

Summary

Students with disabilities can benefit from instruction that incorporates hands-on learning, recognition, assessment opportunities, and program flexibility and adaptability.

LEARNING FOR LIFE'S CHAMPIONS™ USES RESEARCH-BASED INSTRUCTIONAL STRATEGIES

Learning for Life's Champions™ incorporates multiple hands-on activities (e.g., in a lesson on anger, students practice whole body coping strategies); recognizes students for effort and mastery through recognition stickers (Life Skills version) and certificates and medals (Transition to Work version); provides brief assessment opportunities at the end of each lesson (i.e., evaluation benchmarks set to 80 percent mastery); and offers adaptability solutions for every lesson (i.e., adaptation sections offer alternative ways of teaching content).

Summary

Responsive education is essential for post-high school success. Students with disabilities comprise a heterogeneous group of individuals with different academic, career, and daily living support needs, emphasizing the importance of a comprehensive curriculum that meets the unique goals set for and by each student.

This foundational research paper summarized research that supports components of Learning for Life's Champions™ Daily Living and Transition to Work programs. Different sections of the report described research supporting daily living skills, career transition education, and instructional strategies for students with disabilities.

Research suggests that students with disabilities possess a wide variety of life skill needs related to dressing and meal preparation, human growth and development, nutrition and wellness, and personal safety (e.g., Baladerian, 1991; Blackorby et al., 2005; CDC, 2014; Emerson & Turnbull, 2005; Rose et al., 2009; U.S. Department of Education, 2012). Meeting these needs is important, because when students with disabilities have greater independent and daily living skills, they have more positive post-high school academic, career, and independent living experiences (e.g., Test et al., 2009). As additional examples of curriculum benefits, within the topic of human growth and development, studies suggest that social skills training can help, as students with greater social skills have fewer behavior problems and better social interactions compared to students with lower social skills (Gansle, 2005; Kam et al., 2004; Richardson et al., 2009). Furthermore, personal safety programs might be beneficial, as students who participate in abuse prevention programs have greater prevention knowledge compared to students who do not participate (e.g., Kim, 2010).

In addition to the need for daily living skills, students with disabilities might also require career transition support. Researchers emphasize the importance of career skills for students with intellectual and developmental disabilities (e.g., Carter et al., 2014) and find that when career needs are met, students have positive outcomes. For example, when students leave high school with greater career awareness or career transition knowledge, they have more positive career and academic outcomes after high school (Test et al., 2009). Programs that emphasize self-determination skills, one component of career-related education, can also help students to set goals and solve problems (Agran et al., 2002).

In providing responsive programming, schools should also consider the importance of research-based instructional strategies for students with disabilities, such as hands-on learning, student recognition, transition assessments, and flexible and adaptable programming. First, hands-on learning experiences can support student understanding and achievement (e.g., Cass et al., 2003; Scruggs et al., 1993). Second, opportunities for student recognition can foster appropriate student behaviors and build student motivation (Witzel & Mercer, 2003). Third, transition assessments can provide insight into students' academic performance, career aptitude, self-determination, daily living skills, and mastered skills (Test et al., 2014). Finally, because students with disabilities comprise a heterogeneous group, researchers emphasize the importance of providing a flexible and adaptable curriculum (e.g., Snow et al., 2001).

Because of the varied experiences and backgrounds of students with disabilities, schools should seek solutions to build skills in a variety of areas, including daily living and career transition. Learning for Life's Champions™ program aims to empower children and adolescents with disabilities with instruction in these skills, providing them with support in living fulfilling and independent adult lives.

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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

Hattie (2009) Category	Effect Size Range	Brief Description
Reverse effects	Below 0.0	Negative effect sizes; Decreases in student outcomes (e.g., achievement/performance)
Developmental effects	0.0 to 0.15	Effect sizes usually found due to typical student improvement over the course of a year (i.e., maturation/development)
Teacher effects	0.15 to 0.40	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)
Zone of desired effects	Above 0.40	Effect sizes representing the greatest potential impacts on students

The studies cited in this report found positive effect sizes for programs that addressed three topics in the Learning for Life Champions™ Program (see Table A2). All effect sizes fell between the Hattie (2009) categories of developmental effects and zone of desired effects.

Table A2. Range of reported effect sizes in studies cited in Learning for Life Champions™ Program Foundational Research Base

Topic Area	Effect Sizes (Range)[a]	Hattie (2009) Effect Size Categories			
		RE[b]	DE	TE	ZDE
Daily living skills	0.14–5.26		✗	✗	✗
Career transitions	0.09–0.72			✗	✗
Instructional strategies	0.09–1.00	✗		✗	✗

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

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K-6 Substance Abuse Prevention Program
Foundational Research Base

February 9, 2015

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Executive Summary

Substance abuse continues to be a prevalent societal problem. Adolescents, in particular, are using and abusing drugs with at least 60% of middle and high school students reporting some level of drug use (e.g., James, Moore & Gregersen, 1996). To stave off adolescent substance abuse, schools can target prevention efforts toward students in elementary school, before drug use becomes an issue.

This foundational report summarizes the research base behind Learning for Life's K-6 Substance Abuse Prevention Program. Specifically, this report highlights research on early preventive strategies, including research on substance abuse education, use of specific instructional strategies, and best practices for ideal program implementation.

Learning for Life's program offers several preventive strategies

Participation in elementary substance abuse prevention programs can positively impact student outcomes, including greater awareness, less peer pressure, greater anti-drug attitudes, and reductions in substance use intentions or actual use (e.g., Bell, Padgett, Kelley-Baker, & Rider, 2005; Botvin, Griffin, Paul, & Macaulay, 2003; Hopfer et al., 2010).

Additional research offers insight into specific instructional components within substance abuse prevention programming that can make a difference. For example, time for peer discussion and interaction can support students' understanding of peer drug use and offer opportunities to practice refusal skills (Centers for Disease Control and Prevention, 2013). Furthermore, research suggests that other opportunities, such as social and emotional instruction and family involvement within a program, also

lead to decreases in substance use (e.g., Karki et al., 2012; Sklad, Diekstra, Ritter, Ben, & Gravesteijn, 2012).

Learning for Life's program uses research-based instructional strategies

Learning for Life uses research-supported instructional strategies, including hands-on and interactive learning, and age-appropriate lessons. Studies suggest students who participate in hands-on and interactive instruction have higher student achievement, greater attachment to school, and lower levels of substance abuse (e.g., Hawkins, Catalano, & Miller, 1992; Tobler et al., 1999, 2000). Age-appropriate lessons can also provide students with relevant information, while avoiding potential negative effects of discussing some topics too early (Centers for Disease Control and Prevention, 2013; Hopfer et al., 2010).

Building a pathway toward ideal implementation

To support the strongest possible outcomes, schools must ensure high levels of program implementation. Based on available research, there are four best practices for ideal implementation of substance abuse prevention programs:
1. Schools should provide students with sufficient exposure across multiple years.
2. Schools should provide a positive and supportive school climate.
3. Teachers should find ways to maintain student engagement in the program.
4. Teachers can adapt and modify the program while still maintaining fidelity to the program intent.

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Summary

Effective substance abuse prevention involves active and engaging classroom and home discussions that serve to deepen students' understanding of substance abuse. Learning for Life's K-6 Substance Abuse Prevention Program aims to reach learners at an earlier age, before drug use becomes an issue in their lives. By interactively educating the youngest learners, schools offer a viable preventive solution.

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Acknowledgements

Introduction

Substance abuse is a pervasive problem in our society. For example, one study found that 60% of middle and high school students report some level of drug use (e.g., alcohol, marijuana) (James, Moore, & Gregersen, 1996).[175] The reported statistics are staggering. Consider the following:

- In 2013, 66.9 million Americans ages 12 and older reported using cigarettes, cigars, or tobacco (Substance Abuse and Mental Health Services Administration, 2014).[176]
- 36% of twelfth-grade students report using marijuana (National Institute on Drug Abuse, 2014).[177]
- Two of every five high school seniors have tried cigarettes and one of every six seniors is a smoker (Johnston, O'Malley, Bachman, & Schulenberg, 2013).[178]
- Seven of every ten high school seniors have tried alcohol and approximately one of every two seniors has been drunk at least once (Johnston et al., 2013).
- Approximately 1 in 8 adolescents (ages 12-17) have been recently approached by someone selling drugs (Substance Abuse and Mental Health Services Administration, 2014). Males are typically offered drugs more than females, and at younger ages (Robertson, David, & Rao, 2003).

Behind these statistics are multiple risk factors for adolescent substance abuse. Examining risk factors offers some context in addition to a potential pathway to possible solutions. For example, risk factors include poor family involvement, interactions, monitoring, and support (Hawkins, Catalano, & Miller, 1992; McCrystal & Percy, 2010; Webster-Stratton & Taylor, 2001); antisocial behavior or poor social skills (Hawkins et al., 1992; McCrystal & Percy, 2010; Webster-Stratton & Taylor, 2001);[179] peer drug use or peer pressure to use drugs (Hawkins et al., 1992; Schwinn & Schinke, 2014; Scull, Kupersmidt, Parker, Elmore, & Benson, 2010);[180,181] school failure and low commitment to school (Hawkins et al., 1992); and community acceptance of antisocial behavior and pro-drug attitudes (Monahan, Egan, Van Horn, Arthur, & Hawkins, 2011).[182] By understanding the importance of families, peers, social skills, and school and community involvement, schools can take positive steps toward prevention.

Studies suggest that prevention at an early age is essential. Students who start abusing substances before age 13 experience a wealth of negative outcomes, compared to students who do not abuse substances, such as poorer achievement and a greater likelihood of delinquent behavior (Peleg-Oren, Saint-Jean, Cardenas, Tammara, & Pierre, 2009).[183] Furthermore, high school-age students perceive drug use as less dangerous compared to middle school-age students (Maryland State Department of Education, 2008), increasing the difficulty of pursuing prevention efforts with older age groups.[184] Because of the added risks of early use, in addition to permissive drug use attitudes in high school, schools should target prevention efforts to elementary and early middle school (i.e., sixth and seventh grade) populations. Researchers agree that it is more effective to intervene early before problems begin than to change direction when students are on a substance abuse pathway (Hansen, 1988; James, Moore, & Gregersen, 1996; Robertson et al., 2003).[185]

Learning for Life's K-6 Substance Abuse Prevention Program provides early prevention education designed to build student knowledge, awareness, and peer resistance strategies. At each grade level, students participate in 7 to 19 lessons covering age- and developmentally-appropriate substance abuse topics. For example, seven kindergarten lessons address self and emotional awareness, smoking, alcohol, supportive adults, drug avoidance, and positive health behaviors. By contrast, 16 fourth-grade lessons cover a more expansive set of topics, including facts about cigarettes and tobacco, marijuana, alcoholism, stimulant drugs (e.g., cocaine, Adderall), barbiturates (e.g., amytal, phenobarbital), narcotics (e.g., codeine, heroin), sedatives (e.g., Valium), hallucinogens (e.g., LSD), how to convey anti-drug beliefs to family and peers, and practicing drug resistance skills. Each interactive lesson includes multiple in-class activities and opportunities for discussion. Following in-class lessons, students take home activities, allowing for parent and child discussions and collaborations that reinforce in-class instruction.

This foundational research paper reviews existing research on components addressed within Learning for Life's K-6 Substance Abuse Prevention Program.[186] This includes (a) research on various preventive solutions, including substance abuse prevention programs in elementary school, building peer communication and resistance, benefits of parental involvement, and advantages of social competence training; (b) research supporting the use of interactive, engaging, and age-appropriate instructional strategies; and (c) research underlying best practices for ideal program implementation. Throughout the document, endnotes provide additional background, including information on study design, analyses, and effect sizes.

Learning for Life's program offers several preventive strategies

Learning for Life includes several preventive measures in its substance abuse prevention program for grades K–6. Within the program, there are opportunities to understand peers and resist pressure, chances for extended learning through Learning for Life's character development and social competence program, and home extension activities. The following sections detail existing research behind each component.

Substance abuse prevention programs

"In focusing on the risk path, research-based prevention programs can intervene early in a child's development to strengthen protective factors and reduce risks long before problem behaviors develop." (Robertson, David, & Rao, 2003, p. 6)

Students and researchers agree that substance abuse prevention programs can be helpful. For example, in Grades 4-6, Carlson (1994) reported that 97% of students believed their substance abuse prevention program was very helpful and at least 90% agreed that training in drug avoidance was very helpful.[187] In several multistudy reviews of the literature, researchers found substance abuse prevention programs can have positive impacts, particularly when programs incorporate interactive compared to non-interactive (e.g., lecture) components (e.g., Hopfer et al., 2010; Karki et al., 2012; Tobler, Lessard, Marshall, Ochshorn, & Roona, 1999; Tobler et al., 2000).[188,189,190]

When elementary-age students participate in substance abuse prevention programs, compared to non-participation, studies suggest they experience a wide array of positive outcomes, including:

- greater knowledge about safety when in a car with a drunk driver (Bell, Kelley-Baker, Rider, & Ringwalt, 2005; Bell, Padgett, Kelley-Baker, & Rider, 2007; Bohman et al., 2004),[191,192,193]
- greater knowledge surrounding substance use and potential harms (Bell et al., 2005; Botvin, Griffin, Paul, & Macaulay, 2003; Hopfer et al., 2010; Shope, Dielman, Butchart, Campanelli, & Kloska, 1992),[194,195]
- greater knowledge surrounding peer pressure (Shope et al., 1992),
- greater knowledge and understanding related to peer drug use (Botvin et al., 2003; Werch et al., 1991),[196]
- greater knowledge surrounding peer resistance skills (Hopfer et al., 2010),
- less peer pressure to use drugs (Hopfer et al., 2010; Werch et al., 1991),
- more negative attitudes toward substance use (e.g., underage drinking) (Bell et al., 2005; Botvin et al., 2003; Hopfer et al., 2010),
- reductions in substance use or intentions to use (Botvin et al., 2003; Hopfer et al., 2010), and

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- higher self-esteem (Botvin et al., 2003).

The benefits of prevention programming might be maximized through use of specific instructional and support strategies. For example, instructing students in peer culture and social competence, while also incorporating parental support.

Understanding peers and resisting pressure

One potential risk factor for drug abuse is student misperception of peer drug use. For example, when adolescents misperceive the extent of peer substance abuse (i.e., perceiving greater than actual use), they are more likely to abuse different substances, including alcohol, tobacco, cigarettes, marijuana, and methamphetamine (Wambeam, Canen, Linkenbach, & Otto, 2014). As a result, it becomes important to educate students in the actual extent of peer drug use as a preventive factor (Robertson et al., 2003). Effective programming helps students to determine risk taking in peers, while emphasizing positive health beliefs and norms. It also involves creating classroom norms against drug use (CDC, 2013; Hansen, 1988, 1993).

Peer pressure is another potential risk factor, emphasizing the importance of peer resistance training. Specifically, students can benefit from education in peer pressure and explicit practice in communication and refusal skills (e.g., how to appropriately identify and respond to peer pressure) can help build students' personal competence and self-efficacy when faced with risky or difficult situations (CDC, 2013; Hansen, 1998).

Social competence training

Students who abuse drugs can also experience issues with social skills (e.g., Hawkins et al., 1992; McCrystal & Percy, 2010; Webster-Stratton & Taylor, 2001), suggesting the preventive importance of educating elementary-age students in social competence (e.g., Hawkins et al., 1992). For example, multiple studies find that social-emotional training can lead to significant decreases in substance use when compared to no social-emotional training (Sklad, Diekstra, Ritter, Ben, & Gravesteijn, 2012; Snyder, Acock, Vuchinich, Beets, Washburn, & Flay, 2013).[197,198] Further, social-emotional training for students, compared to no training, relates to several specific benefits including a lower likelihood of using illicit substances, including cigarettes, alcohol, or marijuana (Lewis et al., 2012).[199] Monahan et al. (2011) also reports that when middle school students have higher social skills and a belief in moral order, they have lower levels of monthly and lifetime drug use,[200] reiterating the positive association between social skills and drug use behavior.

Parental involvement and support

Students with poor family involvement and support are more likely to experience issues with substance abuse (e.g., Hawkins et al., 1992; McCrystal & Percy, 2010; Webster-Stratton & Taylor, 2001). By contrast, high levels of parental involvement, monitoring, and support serve as

important preventive factors against child and adolescent substance abuse (e.g., Robertson et al., 2003). Multiple studies illustrate the positive benefits of parental involvement (Table 1). Furthermore, a wide range of parental behaviors and characteristics typify non-users in middle school, compared to users. Specifically, non-users report higher levels of parental monitoring and communication, including parental monitoring to ensure students awake for school, parental concern if students are late to school, parental guidance around friendships, parental discussions about avoiding substances, positive parent-child communication, parents and children having meals together, and parents and children do at least one weekly activity together (Maryland State Department of Education, 2008).[201]

Table 1. Parental protective factors relate to positive student outcomes

Parental protective factor		Student outcome
Rules against alcohol use	→	Less likely to use alcohol use Less likely to binge drink Less likely to have drinking intentions[a]
Belief that parents strongly disapprove of drug use	→	Lower levels of current marijuana use[b]
Higher levels of parent monitoring in high school	→	Lower use of alcohol, marijuana, uppers, downers, cocaine, PCP, LSD, ecstasy, and prescription drugs[c]
Greater parental pressure to avoid substances	→	Lower levels of actual use and intentions to use various substances[d]
Greater parental involvement in adolescents' lives	→	Less likely to use substances Less likely to have early sexual experiences Less likely to spend extensive amounts of time with peers[e]

a. Schwinn & Schinke, 2014[202]
b. Substance Abuse and Mental Health Services Administration, 2014
c. Clark, Shambien, Ringwalt, & Hanley, 2012[203]
d. Scull, Kupersmidt, Parker, Elmore, & Benson, 2010[204]
e. de Looze et al., 2012[205]

Because of the important and unique impact that parents have on their children, it is essential to incorporate parents and families in substance abuse prevention (CDC, 2013; Cuijpers, 2002). When parents are involved in prevention programming, there can be several positive outcomes for students, including reduced substance use, greater communication around refusing and avoiding drugs, greater resistance to peer pressure, and greater parental motivation to support students in substance abuse prevention (e.g., Karki et al., 2012; Werch et al., 1991).[206,207]

Summary

Substance abuse prevention programs can effectively impact student knowledge, attitudes, and behavior. Furthermore, specific program components that target risk factors—including peer knowledge building and resistance skills, social competence training, and parental involvement—strengthen the possibility for program effectiveness.

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LEARNING FOR LIFE'S PROGRAM OFFERS PREVENTIVE INSTRUCTION

Learning for Life offers a comprehensive approach to prevention. The program includes multiple lessons at each grade level, incoporating peer discussion and activities, as well as parental support. Additionally, Learning for Life offers social competence training in a K-12 Character Development program (see Styers, 2014).

At each grade level, multiple lessons and activities allow time for peer discussion, small group activities, and opportunties to practice drug refusal skills. For example, in a 2nd grade lesson, students discuss with peers situations that would be difficult or dangerous if they used marijuana. In a 4th grade lesson, students act out different peer pressure scenarios to try drugs, and spend time, as a class, debating and discussing ways to refuse drugs.

After each lesson, students have the opportunity to reinforce their learning through take-home lessons completed with family. For example, after a classroom discussion on illegal vs. legal drugs, parents and children work together to identify different prescription and over-the-counter drugs in their home and discuss differences between the two types.

Learning for Life also offers a K-12 Character Development program with lessons for each grade level. Students receive instruction in topics related to character trait education, personal safety, resolving interpersonal conflicts, decision-making, civics and moral education, college and career exploration and awareness, life skills, and language arts and health. For additional information on program components and supporting foundational research, see Styers (2014).

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Learning for Life's program uses research-based instructional strategies

Learning for Life utilizes several effective instructional strategies, including hands-on and interactive instruction and age-appropriate lessons. The following paragraphs provide supporting research on these components.

Hands-on and interactive instruction

"It is the exchange of ideas and experiences between students, the opportunity to practice new skills and obtain feedback on skills practice that acts as a catalyst for change rather than any critical content feature of the programme."
(McBride, 2003, p. 736)

Quality substance abuse prevention engages students through interactive and student-focused learning opportunities. For example, interactive programs provide opportunities for students to discuss, communicate, receive feedback, practice drug refusal, learn in small groups, and acquire peer feedback (CDC, 2013; Cuijpers, 2002; Hansen, 1988; McBride, 2003; Robertson, David, & Rao, 2003).[208] Interactive instruction can result in higher achievement and attachment to school (Hawkins et al., 1992). Furthermore, interactive, compared to non-interactive (i.e., lecture-based), substance abuse prevention programs have a greater impact on student outcomes, including increasing anti-drug attitudes, and decreasing marijuana, tobacco, and alcohol use (Tobler et al., 1999, 2000).[209,210]

Age-appropriate lessons

Multiple reviews highlight the importance of utilizing age and developmentally-appropriate substance abuse prevention programming (e.g., CDC, 2013; McBride, 2003). By addressing age-appropriate topics, schools can avoid potential negative effects of discussing information too early (Hopfer et al., 2010). Additionally, by using age-appropriate lessons that reinforce content across multiple years, schools can strengthen program implementation (see next section on implementation).

LEARNING FOR LIFE USES RESEARCH-BASED STRATEGIES

Learning for Life aims to engage students through hands-on instruction and age-appropriate lessons. Students regularly participate in discussions on topics, complete activities, participate in small groups, and reflect on different concepts. For example, in a first-grade lesson on smoking, students spend time discussing habits, work as a class to develop a list of harmful smoking effects, and design their own signs or television commercials encouraging others to avoid smoking. Additionally, the program provides age-appropriate lessons for students in grades K–6, with reinforcing topics across grade levels, and more information on different types of drugs for older students. For example, all students learn about smoking and alcohol, but students do not discuss illegal drugs until at least third grade (with discussions becoming more complex as students age).

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Building a pathway toward ideal implementation

"With fidelity of implementation under research conditions as the standard referent, it would be unreasonable to expect providers to achieve complete fidelity on all domains, which has not been demonstrated even under the most rigorous research conditions. Yet, reasonably high expectations are appropriate and necessary if curricula are to have their intended effects on youth substance abuse."
(Ennett et al., 2011, p. 370)

When substance abuse prevention programming is not effective, one reason may be low and varied levels of program implementation and commitment (e.g., poor stakeholder involvement, other initiatives taking greater priority) (Sobeck, Abbey, & Agius, 2006).[211] As a result, it becomes important to build a pathway toward ideal implementation.

Schools should note that real-world implementation is never perfect. For example, Ennett et al. (2011) explored everyday implementation of substance abuse prevention programs in middle schools, finding that educators used an average of 86% of the curriculum and taught most components within lessons (approximately 76%).[212] Taking this into consideration, schools should strive for ideal and practical implementation rather than perfect implementation, while recognizing that higher levels of implementation predict better outcomes (e.g., Durlak & DuPre, 2008; O' Donnell, 2008). Based on the available research, there are four best practices for implementation:

BEST PRACTICE #1

Schools should provide students with sufficient program exposure across multiple years.

Students need more than a one-time program completed at one grade level. Program exposure should last multiple years, reinforcing what students learn in earlier grades to achieve longer-term results (CDC, 2013; Hopfer et al., 2010; McBride, 2003; Robertson et al., 2003). When students have longer program exposure (e.g., two years compared to one year), impacts are greater compared to impacts on students with less program exposure (Shope et al., 1992).[213] The amount of yearly time spent on a program might matter as well. For example, Tobler et al. (2000) reported that students who spent more than 31 hours in an interactive substance abuse prevention program demonstrate greater program impacts than students who spent less than 10 hours in an interactive program.

BEST PRACTICE #2

Schools should provide a positive and supportive school climate.

Positive school climates are linked to reductions in reported substance abuse (e.g., Hawkins et al., 1992) and to positive program implementation. For example, hands-on involvement and

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support from superintendents and principals can increase staff buy-in to the program and build teacher confidence in administrator support (Sobeck, Abbey, & Agius, 2006). Furthermore, if school coordinators have more positive program perceptions, teachers might cover more of the lessons (Mihalic, Fagan, & Argamaso, 2008). Thus, a positive and supportive school climate can support higher levels of program interest and dedication to implementation.

BEST PRACTICE #3

Teachers should find ways to maintain student engagement in the program.

Research suggests that when students are engaged and interested in a program, they will retain more of the content (e.g., Robertson et al., 2003), and will possess greater normative beliefs against substance use, greater commitments to avoid alcohol, greater beliefs that substance use would negatively impact their lifestyle, greater commitments to school, and more positive parent interactions compared to students with lower levels of program engagement (Ringwalt et al., 2009).[214] For programs to be effective, it is essential for teachers to maintain student engagement.

BEST PRACTICE #4

Teachers can adapt and modify the program while still maintaining fidelity to the program intent.

In some cases, teachers might adapt programs to meet specific student or classroom needs. Adaptation and modification are acceptable, but should be done in moderation, and whenever possible in consultation with program developers who have additional insight into what can be modified (Sobeck et al., 2006). Overall, when adapting programs, teachers should try to retain essential program components including: structure/organization, core program content, and developer suggestions for implementation and adaptability (Robertson et al., 2003).

Summary

Adolescent substance abuse is a troubling societal issue. One study suggests that 60% of middle school and high school students report using drugs (Moore & Gregersen, 1996). To combat potential substance abuse problems, early intervention is essential. This report summarized the foundational research base behind Learning for Life's K-6 Substance Abuse Prevention Program. Specifically, the report highlighted research on substance abuse prevention programming, various instructional strategies, and best practices for program implementation.

When elementary schools successfully implement substance abuse prevention programming, students can experience an array of positive student outcomes, including greater knowledge, less peer pressure, more anti-drug attitudes, and reductions in substance use intentions or actual use (e.g., Bell et al., 2005; Botvin et al., 2003; Hopfer et al., 2010). Within substance abuse programs, several preventive solutions can make a positive difference, such as (a) providing time for peer discussion and interaction (which can, for instance, reinforce accurate knowledge of peer drug use as well as individual refusal skills; CDC, 2013), (b) including opportunities for social and emotional development (which can lead to decreases in substance abuse; Sklad et al., 2012), and (c) utilizing home extension activities (since greater parental involvement can lead to reduced substance use and greater communication; Karki et al., 2012).

Research-based instructional strategies are also important for cultivating positive student outcomes. For example, studies suggest hands-on and interactive instructional opportunities result in higher achievement, greater attachment to school, and lower levels of substance abuse (e.g., Hawkins et al., 1992; Tobler et al., 1999, 2000). Furthermore, age-appropriate lessons can provide relevant information (CDC, 2013), while avoiding potential negative effects of discussing some substance abuse topics before students are ready (Hopfer et al., 2010).

To support positive program outcomes, schools need to ensure high levels of implementation. Based on available research, there are four best practices for ideal implementation of substance abuse prevention programs:
1. Schools should provide students with sufficient program exposure across multiple years.
2. Schools should provide a positive and supportive school climate.
3. Teachers should find ways to maintain student engagement in the program.
4. Teachers can adapt and modify the program while still maintaining fidelity to the program intent.

Prevention education involves effective programming that seeks to actively engage students and deepen understanding through a variety of activities and program components. Learning for Life's K-6 program aims to reach young learners, engaging them in anti-drug discussions before substance abuse becomes an issue. By interactively educating and engaging the youngest learners, schools can offer an effective preventive solution.

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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

Hattie (2009) Category	Effect Size Range	Brief Description
Reverse effects	Below 0.0	Negative effect sizes; Decreases in student outcomes (e.g., achievement/performance)
Developmental effects	0.0 to 0.15	Effect sizes usually found due to typical student improvement over the course of a year (i.e., maturation/development)
Teacher effects	0.15 to 0.40	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)
Zone of desired effects	Above 0.40	Effect sizes representing the greatest potential impacts on students

The studies cited in this report showed positive effect sizes for programs that addressed five topics in the Learning for Life K-6 Substance Abuse Prevention Program Foundational Research Base (see Table A2). All effect sizes fell between the Hattie (2009) categories of developmental effects and zone of desired effects.

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Table A2. Range of reported effect sizes in studies cited in Learning for Life K-6 Substance Abuse Prevention Program Foundational Research Base

Topic Area	Effect Sizes (Range)[a]	Hattie (2009) Effect Size Categories[b]			
		RE	DE	TE	ZDE
Substance abuse risk factors	0.10–1.86		✗	✗	✗
Substance abuse prevention programs in elementary schools	0.11–0.68		✗	✗	✗
Social-emotional instruction	0.09–0.35		✗	✗	
Parent monitoring and involvement	0.14–0.93		✗	✗	✗
Interactive substance abuse prevention programming	0.12–0.18		✗	✗	

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., less reported drug use).
b. RE = Reverse effects, DE = Developmental effects, TE = Teacher effects, ZDE = Zone of desired effects

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United against Bullying:
The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program Foundational Research Base

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Executive Summary

Bullying is a pervasive problem in our society, and students who are victimized suffer both short and long-term harm. The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program adopts a unified, community-based approach, wherein schools can harness the power of multiple contexts to make a positive difference.

Within schools, peers, teachers, and school climates impact student actions and outcomes. Provided with Learning for Life awareness building and training, peers can learn pro-victim attitudes, develop positive social skills, and feel empowered to speak up when witnessing bullying.

Teachers can also positively benefit from Learning for Life awareness training. Becoming cognizant of bullying types, prevalence, and prevention strategies supports teachers in understanding the importance of intervention, fostering positive student-teacher interactions, enacting a classroom anti-bullying culture, and reinforcing the importance of classroom anti-bullying messages.

Through Learning for Life training, students and teachers can learn about the importance of building a supportive culture. As part of nurturing a positive climate, schools can create whole school anti-bullying policies for prevention, swiftly react when bullying occurs, and self-reflect on current bullying and victimization behaviors in their schools.

Learning for Life also helps to build parental support and awareness, as parents have an important impact on child outcomes. Studies suggest that a positive and supportive home environment with compassionate and involved parents helps to prevent and reduce the negative effects of bullying and victimization.

The interconnections between school and home serve to strengthen and support the anti-bullying message in Learning for Life. Parents, students, and teachers can work together to observe and respond to bullying and victimization through improved supervision methods and co-development of anti-bullying policies. This multi-modal approach to bullying acknowledges that all parties are stronger together. The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program aims to harness the power of communities in taking a proactive stance against bullying.

Quality implementation is critical to using the Learning for Life program. Specifically, students need to be engaged and attentive, teachers need to be trained with adequate support, teachers need to implement the program fully, and communities need to adopt an anti-bullying culture. Use of these practices can lead to enhanced effectiveness of the Learning for Life program.

The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program takes a multi-modal approach to combating bullying. Through the inclusion of videos and activities for students, teachers, and parents, the program aims to reduce bullying through a community-oriented approach. The program advocates that communities are stronger as a united front against bullying than any one group can be alone.

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Introduction

> *A child sits with her head in her hands, wondering what she did to deserve such hatred. Other peers watch as the child is pelted with objects during class. The child is too scared to say anything, and depressed that no one seems to care. (Vignette based on bullying accounts shared with the author)*

Bullying is universal. Studies indicate the majority of students in Grades 5-12 frequently witness various incidents of bullying and harassment, with a host of associated consequences for student victims, bullies, and witnesses (see Table 1). Both the prevalence and impacts are widespread and far-reaching, necessitating the importance of taking steps to prevent and respond to bullying.

For the purpose of this paper, bullying is defined as a relationship wherein an individual is repeatedly mentally or physically harmed by another, and there is a power imbalance between bully and victim (Olweus, 1992). Bullying can be manifested in many forms, including physical (e.g., hitting), verbal (e.g., direct teasing), relational (e.g., rumor spreading) and cyber (e.g., bullying through cell phones or computers) (e.g., Wang, Ianotti, & Nansel, 2009). It remains a pervasive problem with a need for solutions.

Table 1. Prevalence of bullying in schools and associated consequences for students and schools

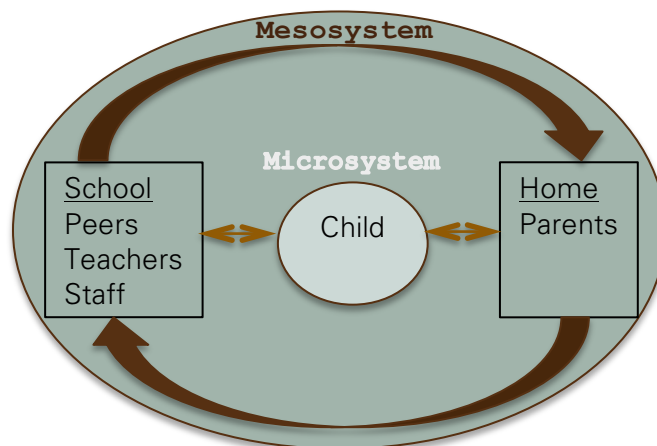| Prevalence	Consequences
• 97% of 5th-12th grade students have witnessed or experienced bullying at some point (Langdon & Preble, 2008).	• Witnessing bullying, being a bully, or being a victim are associated with various psychological problems including depression and substance abuse (Rivers, Poteat, Noret, & Ashurst, 2009).
• 96% of middle school students have seen peers sexually harassed (Lichty & Campbell, 2012).	• Being a bully, a victim, or a bully-victim are associated with greater likelihood of suicidal ideation (Hepburn, Azrael, Molnar, & Miller, 2012).
• Adolescents experience an average of seven different types of sexual harassment in middle school (Lichty & Campbell, 2012).	• Being a victim or a bully-victim in early life are associated with increased risk of psychiatric issues in adulthood (Copeland, Wolke, Angold, & Costello, 2013).
• Students in Grades 5-8 note that cyber-bullying can happen all day and anywhere, calling it never-ending (Mishna, Saini, & Solomon, 2009).	• Higher levels of student-reported and teacher-reported bullying in schools are significant and independent predictors of increased high school dropout rates (Cornell, Gregory, Huang, & Fan, 2013).
• Past behavior begets present behavior. Being a bully or victim once predicts being a bully or victim again (Hemphill et al., 2012; Jose, Klackovic, Scheib, & Notter, 2011).	

Figure 1. The child is impacted by a variety of different people in various settings (i.e., microsystem) as well as by the interrelations among those settings (i.e., mesosystem)

One way to combat bullying is through use of an anti-bullying program. A meta-analysis of 41 studies of anti-bullying programs shows that such programs can be effective at reducing bullying and victimization behaviors (Farrington & Ttofi, 2009). This paper explores components of the Learning for Life Anti-Bullying and Cyber-Intimidation Training Program that are associated with successful reductions in school bullying and victimization, using the framework of Bronfenbrenner's (1977) social ecological theory of human development.

According to Bronfenbrenner's model, every individual is supported and influenced by different systems. At the innermost level, the microsystem, a student is influenced by his or her immediate settings (e.g., school, home). At the next level, the mesosystem, a student is influenced by the interrelations between those settings (e.g., impact of interactions between school and home) (Figure 1). Both levels provide an important lens for understanding how different individuals and contexts impact the student. Not only are peers, teachers, and parents important, but the communications and interactions between these groups are essential as well.

The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program brings communities together to combat bullying. Training videos and discussion guides for different individuals at school and home serve to build common awareness and garner community support. Students, staff, and parents learn that they are stronger united against bullying than any one group can be alone.

In this paper, I will first explore home and school microsystem impacts on student outcomes. Next, I will examine the impact of mesosystem interrelations, specifically communications across school and home environments on bullying and victimization. At the end, I will offer some guidelines on maximizing the effectiveness of the Learning for Life Anti-Bullying and Cyber-Intimidation Training Program through high-quality implementation.

Throughout the paper, endnotes provide additional information on study design, sample size, analyses, and effect sizes.

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Learning for Life brings peers, teachers, and school staff together to prevent bullying

The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program includes targeted video and discussion activities for peers, teachers, and school staff. These components provide awareness building and reflection opportunities for individuals in the school-to-child microsystem. By working within this microsystem, program developers hope to positively change the school climate and student outcomes.

The following section examines the research base for how individuals within schools and the overall school climate impact bullying and victimization behaviors.

The Importance of Peers

Victims of bullying often have friendship difficulties and issues with social isolation. For example, feeling rejected or isolated from adolescent peers is associated with an increased risk of victimization for males and females (Brighi, Guarani, Melotti, Galli, & Genta, 2012). [215] In addition, victims and victim-bullies have more difficulties in making friends than bullies or other peers (e.g., Marini, Dane, Bosacki, & YLC-CURA, 2006). [216] Why does this happen? Pellegrini (2002) hypothesizes that an increase in bullying behavior during adolescence occurs because of a lack of cohesion in middle school peer groups. Students go from having a single class peer group to interacting with a wide variety of students and classes. As a result, students have less familiarity with each other, and might be less likely to resolve conflicts (Pellegrini, 2002). However, having friends or feeling less isolated does not always translate to reduced victimization.

Sometimes peers ignore bullying or make it worse. In the case of peer bystanders, bullies only need to be minimally reinforced by other peers to increase the risk that socially rejected or anxious students will be victimized (Kärnä, Voeten, Poskiparta, & Samivalli, 2010).[217] Additionally, peer adolescent bystanders might ignore bullying if they perceive friends as unsympathetic to victims, and this ignorance is associated with more bullying (Rigby, 2005). To halt the negative cycle, peers need to be informed of their potential impact.

Peer awareness of the bullying problem and their unique influence is essential. A meta-analysis of 89 studies finds that when anti-bullying programs include components that involve working with peers and building awareness, there is an associated decrease in victimization (Ttofi & Farrington, 2011). [218] Additionally, three separate meta-analyses find that when anti-bullying programs build student awareness of bullying through videos, there is a decrease in student victimization (Farrington & Ttofi, 2009; Ttofi & Farrington, 2009, 2011). [219,220,221] Thus, Learning for Life's strategy of educating peers on their important role can prove effective.

What makes peers so powerful and what components of Learning for Life's peer awareness training can be helpful? Several research studies suggest that peer friendships serve as a protective factor. Having more friends or more high-quality friendships is associated with a lower likelihood of victimization (Bollmer, Milich, Harris, & Maras, 2005; Richard, Schneider, & Mallet, 2012; Wang et al., 2009). [222,223,224] However, having more friends might also be related to

a greater likelihood of bullying behavior (Wang et al., 2009), [225] but this relationship could be dependent on the *type* of friends that a bully has around them. For example, Bollmer et al. (2005) find that high-quality friendships can serve as an anti-bullying protective factor for students who are prone to aggression and acting out.[226] Strong and supportive relationships amongst friends are protective, suggesting that encouraging students to nurture and develop friendships could be useful in prevention efforts.

Awareness building in the Learning for Life program can support peers in taking a pro-victim stance. Studies find that pro-victim attitudes in peers are associated with less bullying, as well as more incidents of students reporting harassment to teachers, and increased peer bystander intervention (Pozzoli, Gini, & Vieno, 2012; Rigby, 2005; Rigby & Johnson, 2004, 2006). [227,228,229,230] However, adolescents will likely need support in developing pro-victim beliefs because of discrepant self-other perceptions. Specifically, adolescents can be subject to pluralistic ignorance, in that they believe watching bullying and not defending a victim is morally wrong, but they do not intervene because they believe their peers support bullying behavior when peers do not intervene (Sandstrom & Bartini, 2010). [231] As a result, students might not realize that their peers are also morally against bullying. Thus, the Learning for Life bullying-related classroom discussions could be helpful in creating a common understanding.

When violence prevention programs teach social skills to students, there are decreases in violent behavior (Hahn et al., 2007; Wilson, Lipsey, & Derzon, 2003).[232,233] Females could particularly benefit, as feeling confident in social situations is related to girls being 32 times more likely to intervene in bullying compared to less confident girls (Cappadocia, Pepler, Cummings, & Craig, 2012). Empathy might also be an important social skill, as higher levels of empathy are associated with lower levels of bullying behavior and greater bystander intervention (Barchia & Bussey, 2011; Cappadocia et al., 2012; Nickerson, Mele, & Princiotta, 2008; Topcu & Erdu-Baker, 2012). [234,235,236,237] Through Learning for Life social skills training, students can gain confidence and develop anti-bully attitudes.

Awareness training in the Learning for Life program can also encourage peers to intervene. Some studies suggest that peers intervene only 14% to 41% of the time in elementary through high school (Atlas & Pepler, 1998; Oh & Hazler, 2009). What prompts intervention? Students intervene (a) when they think the victim will feel better, (b) if they think the bullying will stop as a result, or (c) if they are close to the victim (Oh & Hazler, 2009; Pöyhönen, Juvonen, & Samivalli, 2012).[238,239] When students do intervene, there is an enhanced likelihood that other

students will intervene as well (Wernick, Kulick, & Inglehart, 2013),[240] and studies support that targeting peer intervention in an anti-bullying program is an effective strategy for reducing bullying and victimization (Frisen & Holmqvist, 2010; Polanin, Espelage, & Pigott, 2012).[241,242]

Bullying victims often suffer the negative consequences of social isolation, and peer ignorance or endorsement of bullies can make matters worse. By educating peers on the nature of the problem and their potential impact, Learning for Life

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can utilize the positive power of peers for protection. Specifically, anti-bullying training in Learning for Life's program can support students in developing a pro-victim stance, building social skills, and teaching peers to intervene. Through use of these methods, peers can make a difference.

> **BUILDING PEER AWARENESS AND EMPATHY IN LEARNING FOR LIFE**
>
> *The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program includes several components designed to build peer awareness, social skills, and encourage pro-victim behavior. The program includes student training videos that educate Grade 3-12 students on the nature and prevalence of harassment, bullying, and cyber-bullying. The videos also offer several strategies for dealing with bullying, including positive bystander behavior.*
>
> *In-classroom discussion guides are designed to foster and build student social skills, victim perspective-taking, and empathy. For example, students spend time discussing how the impacts of bullying are long-lasting, and they are asked to fully consider how words cannot be taken back once said.*

The Importance of Teachers

Twenty-five percent of teachers in one study believed that cyber-bullying is a normal part of life with no lasting psychological effects (Stauffer, Heath, Coyne, & Ferin, 2012). This is troubling considering that the greatest predictor of when teachers intervene is the perceived severity of the bullying incident (Ellis & Shute, 2007).[243] Teachers are also not aware of everything going on around them. In an observational study, teachers were only aware of 50% of observed bullying incidents (Atlas & Pepler, 1998). To help build understanding and awareness, teachers need support from anti-bullying training.

Learning for Life teacher training and awareness building can be beneficial. A meta-analysis of 89 studies of anti-bullying programs reveals that when teachers receive anti-bullying training, there are decreases in bullying behavior (Ttofi & Farrington, 2011).[244] Middle school students also rate teacher awareness and intervention training as their top preference for an anti-bullying intervention (Crothers, Kolbert, & Barker, 2006).

Why can Learning for Life's teacher training help? There are several reasons. First, training can emphasize the importance and significance of teacher intervention. When teachers learn the power of intervening in bullying, they help not only the children directly affected, but also positively influence the classroom environment. One study found that teachers successfully intervened in 49% of bullying incidents (Fekkes, Pijpers, & Verloove-Vanhorick, 2005). When teachers intervene, they serve as a positive role model for their students. Studies show that when students see their teachers intervene to stop bullying, they are more likely to intervene themselves (Aboud, 2007; Hektner & Swenson, 2012; Wernick et al., 2013).[245,246] Seeing teachers serve as positive role models might be one reason why students endorse teacher intervention to stop bullying as an effective anti-bullying strategy (Frisen & Holmqvist, 2010).[247]

Second, training can help to strengthen student-teacher interactions. Positive teacher-student interaction is a critical factor in sending the anti-bullying message. Students are more likely to tell teachers about bullying if they have an established, positive relationship with them

(Maunder & Tattersall, 2010; Oliver & Candappa, 2007). In addition, more positive teacher-student interactions and greater teacher compassion are related to lower levels of bullying behavior and victimization (Richard et al., 2012; Roth, Kanat-Maymon, & Bibi, 2011).[248,249] At the school level, greater perceptions of teacher support are related to more positive perceptions of school belonging amongst students (Murdock & Bolch, 2005).[250] Thus maintaining positive student-teacher relationships is key.

Third, teacher training can support creating a classroom anti-bullying culture. Establishing a positive classroom climate that supports victims and disapproves of bullying is essential. Implicit classroom beliefs, attitudes, and norms send the message that bullying is not accepted. When peers in a classroom respect one another and have higher anti-bullying beliefs, there are significantly lower levels of bullying (Langdon & Preble, 2008; Salmivalli, Voeten, & Poskiparta, 2011).[251,252] Additionally, pro-victim classroom attitudes are associated with a greater likelihood of peers defending victims (Pozzoli et al, 2012; Rigby & Johnson, 2006),[253,254] and when more students defend victims in a class, there is an associated reduction in bullying (Salmivalli et al., 2011).[255] As a result, overall attitudes can have a profound effect on outcomes.

Finally, Learning for Life training can reinforce the importance of classroom anti-bullying policies. Two separate meta-analyses of anti-bullying programs found that having classroom management strategies for responding to bullying, and classroom rules against bullying, are associated with decreases in bullying behavior (Ttofi & Farrington, 2009, 2011).[256,257]

Many times teachers are unaware of the extent of the bullying problem in their school, which is one of the reasons why teacher awareness training is so critical. Learning for Life training can help teachers to understand the importance of intervening in bullying, establish positive teacher-student interactions, create a positive classroom culture that supports victims, and take steps to enact policies and procedures to prevent and respond to bullying. All of these components send a message that bullying will not be tolerated.

TRAINING TEACHERS AND CREATING POSITIVE CLASSROOMS IN LEARNING FOR LIFE

The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program provides teachers with a 35-40 minute educational training video. The video builds teacher awareness with information on prevalence and different types of bullying, as well as suggestions for how to deal with bullying and sexual harassment policy review.

The associated classroom discussion points and activities support teachers and students in creating a dialogue about bullying, establishing a positive classroom environment, and providing open time for discussion.

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The Importance of School Climate

Anti-bullying work does not end in the classroom. It encompasses efforts to create a whole school climate and culture dedicated to prevention.

Negative school climates are associated with bullying. One international study spanning 40 countries showed that negative school climates relate to a greater prevalence of bullies and victims (Harel-Fisch, et al., 2011). Furthermore, students who are bullied frequently have lower levels of school connectedness and lower motivation to learn, compared to students who are bullied less often (Skues, Cunningham, & Pokharel, 2005).[258] Thus, a negative school climate can create a never-ending cycle of victimization and poor school outcomes.

Part of the reason why negative school climates are harmful might be that students do not feel safe. Insecurity about school climate is associated with greater odds of being a victim or a bully compared to a bystander (Glew, Fan, Katon, Rivara, & Kernic, 2005).[259] One example of an unsafe environment involves greater gang presence in schools, which is associated with an increased risk of physical and social victimization (Popp, 2012).[260] By contrast, stronger perceptions of school safety are associated with lower levels of physical and verbal bullying (Richard, Schneider, & Mallet, 2012).[261] A focus on increasing safety and maintaining a positive climate is the best course of action.

A unified perception of a positive school climate provides powerful protection against bullying. One meta-analysis of 53 studies of violence prevention programs showed that when programs focus on making positive whole-school changes, there is a 12% decrease in violent behavior (Hahn et al., 2007). The following findings illustrate how a positive school climate can make a difference.

- When high school students feel that they are in a supportive school environment, they are more likely to seek help for victimization (Eliot, Cornell, Gregory, & Fan, 2010).[262]
- When adolescents believe the school is working together to prevent student aggression, there is a greater likelihood that students will defend victims (Barchia & Bussey, 2011).[263]
- When adolescents believe they are in a positive school climate, there are lower reports of victimization (Brighi et al., 2012; Gendron, Williams, & Guerra, 2011; McGrath & Noble, 2010).[264,265]

The creation of a positive, supportive, and collaborative school climate can serve as a protective factor against bullying and victimization.

As part of the positive school culture, students need to be aware of school policies against bullying. The presence of whole school anti-bullying rules is associated with decreases in bullying and victimization (Ttofi & Farrington, 2011; Woods & Wolke, 2003).[266] School psychologists endorse this strategy as one of the most effective means of preventing bullying (Sherer & Nickerson, 2010). Student interpretation of policies is also important. When students perceive school rules as fair, consistently enforced and just, there is a lower risk of physical and social bullying victimization (Popp, 2012).[267]

Even the best policies will not prevent all types of bullying, so when bullying does occur, there should be swift responses from the school. Teachers believe that having stronger school-level consequences results in decreased bullying behavior (Stauffer, Heath, Coyne, & Ferin, 2012). Two meta-analyses support this belief, finding that having school punishments for bullying behavior is associated with decreases in bullying and victimization (Ttofi & Farrington, 2009, 2011).[268,269]

Before deciding how to change the school climate, school staff need to make sure they are informed and aware of the full extent of bullying in their school. In light of research that shows only 53% of victimized students reported bullying to their teachers and only 43% of bullies were approached by teachers (Fekkes et al., 2005), it becomes important to reflect on behaviors in individual schools. Open conversations about bullying and anonymous student surveys help students and staff to understand the prevalence, typical responses to bullying behavior, impacts on students, and effectiveness of current efforts in individual schools (Couvillon & Ilieva, 2011; Pellegrini, 2002; U.S. Department of Health and Human Services, 2013).

A whole school approach that recognizes the importance of a unified and positive front is essential. Schools should understand why negative school climates hamper any type of anti-bullying program success. Positive school climates enable students to defend others, seek help, and be protected from bullying and victimization. Positive climates also encourage steps to prevent (i.e., through whole school anti-bullying policies) and respond to (i.e., through punishment) bullying. Finally, positive school climates promote better understanding of unique school environments, including the prevalence and extent of bullying. In this way, the school can serve as a safe haven for students.

BUILDING A POSITIVE SCHOOL CLIMATE IN LEARNING FOR LIFE

Through the inclusion of different bullying awareness videos for students and teachers, the Learning for Life Anti-Bullying Training program aims to educate and inform different people within the school environment. Use of the videos sends an explicit message that bullying will not be tolerated and ensures that all parties are on the same page.

The program also encourages whole school review of current anti-bullying policies and harassment laws, and school review of the extent of the problem through anonymous student questionnaires. Teachers are encouraged to always intervene in bullying incidents and to dedicate time each week to discussing bullying prevention.

At the school level, the program advocates for changing the whole school climate and notes that one individual cannot effect change for an entire school. Rather, bullying prevention and response requires the efforts of the entire school community. As a result, students and staff can come together through review of and discussions surrounding the student and teacher versions of the online training videos.

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Learning for Life builds parental awareness and encourages support

The Learning for Life Anti-Bullying, and Cyber-Intimidation Training Program includes a parent training video and associated discussion activities. These components serve to support schools in garnering parental support and building bullying awareness. By involving the home-to-student microsystem, program developers aim to utilize the power of parental support in effecting positive change.

The following section details research on how parental awareness and support impact bullying-related outcomes.

The Importance of Parents

Parents are not always aware of bullying. In one study, 39% of elementary school students who were bullied did not tell their parents (Holt, Kantor, & Finkelhor, 2009). In another study, half of parents learned that their child was a victim of bullying during the study interview (Sawyer, Mishna, Pepler, & Wiener, 2011). As another example, a group of high school-age bullies and bully-victims reported that parents knew less about their activities compared to victims and uninvolved peers (Marini, Dane, Bosacki, & YLC-CURA, 2006). Such research indicates that awareness training is an important tool. Meta-analyses support that educating parents about bullying and training parents on anti-bullying initiatives is associated with reductions in bullying and victimization (Farrington & Ttofi, 2009; Ttofi & Farrington, 2009, 2011).[270,271,272]

When parents are aware of bullying, they can help to stop it. In one study, parents were successful in intervening to stop bullying in 46% of incidents (Fekkes et al., 2005). Furthermore, elementary and middle school-aged students believe parents can be helpful in dealing with bullying if students are taken seriously and parents respect their children's wishes for the best way to deal with the situation (Oliver & Candappa, 2007). Parental involvement and respect appears to be key for responding to bullying situations.

Family involvement and support is critical, as less supportive home environments are associated with a wide range of negative bullying-related outcomes. All of the following family factors are associated with increased risk of victimization and/or bullying behaviors:

- family abuse and violence (Bowes et al., 2009; Espelage, Bosworth, & Simon, 2000),[273,274]
- feelings of parental rejection or distance (Brighi et al., 2012; Marini et al., 2006),[275,276]
- conflict at home (Hemphill et al., 2012),[277]
- child spends time unsupervised (Espelage et al., 2000),[278]
- parent feels their child hassles or angers them (Shetgiri, Lin, & Flores, 2013),[279] and
- poor maternal mental health (Shetgiri et al., 2013).[280]

By contrast, families can also serve as protective factors against bullying. Studies show that greater parental support is related to a lower likelihood of being a bully or a victim, child resiliency, and fewer long-term psychological issues for victims (Bowes, Maughanm, Caspi, Moffitt, & Arseneault, 2010; Wang et al., 2009).[281,282] Examples of beneficial parental support include talking with children and sharing thoughts, and meeting their children's friends (Shetgiri, Lin, & Flores, 2013).[283] Additionally, greater parental closeness is associated with a higher likelihood of peer bystander intervention (Nickerson, Mele, & Princiotta, 2008).[284] Thus, parental closeness, support, and direct involvement in their children's lives can make a positive difference.

Parents may be less aware of bullying and victimization than they realize, but Learning for Life parent training, support of children, and intervention can help. Supportive home environments are critical, as negative home environments are associated with a constellation of maladaptive bullying and victimization-related outcomes. Home environments that maximize parental closeness, support, and direct involvement in children's lives can lead to a lower likelihood of bullying and victimization, as well as positive psychological outcomes.

EDUCATING AND EMPOWERING PARENTS IN LEARNING FOR LIFE

The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program acknowledges the power of parents, and seeks to build their awareness, and encourage support for children through parent training videos. The videos for parents, like the videos for students and teachers, provide education on the different types of harassment and bullying, discuss potential impacts on students, and offer possible solutions.

Parents are encouraged to take a supportive and active role in their children's lives. Through discussion points accompanying the video, parents learn about school policies and procedures, prevention methods, long-term psychological impacts of bullying on students, and how to monitor children's online interactions.

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Learning for Life fosters cross-setting collaborations

Learning for Life Anti-Bullying and Cyber-Intimidation Training Program developers understand the collective power that comes with a unified anti-bullying front. By including components designed to foster support and interaction across settings, developers aim to build supportive relationships and create common understanding across individuals. These cross-setting collaborations are a unique part of the mesosystem (Bronfenbrenner, 1977), wherein connections between school and home provide an important context for child development, and can impact the child in significant ways.

The following section offers research-based examples of how cross-setting collaborations make a difference.

> *Every individual should have the right to be spared oppression and repeated, intentional humiliation, in school as in society at large. No student should be afraid of going to school for fear of being harassed or degraded, and no parent should need to worry about such things happening to his or her child!*
> *(Olweus, 1992, p. 105)*

The Importance of Working Together

Effective communication between parents, students, teachers, and school staff builds trust and positive perceptions across groups. When parents are involved and interactive with their child's school, they have more positive perceptions of the school (Zablotsky, Bradshaw, Anderson, & Law, 2012).[285] Parental involvement is also important because, as one study shows, teachers often find out about bullying from parents, and the information is more reliable if parent-teacher relationships are strong (Maunder & Tattersall, 2010). By building solid relationships across settings, families and schools take a community approach to tackling the bullying problem.

A whole-school and community approach to prevention makes a difference. Having support from a variety of individuals and cross-setting collaborations is associated with reductions in bullying and a lower likelihood that students will carry weapons to school (Coyle, 2008; Donnon, 2010).[286] Supportive adult figures also have an impact, as the presence of positive adult role models relates to lower levels of bullying and victimization (Espelage et al., 2000; Popp, 2012).[287,288]

A collaborative approach to bullying prevention helps to stop bullying before it starts. One study suggests that bullying occurs more frequently in less supervised settings, with 76% of students being bullied on the playground compared to 41% being bullied in the classroom (Fekkes et al., 2005). Therefore, training teachers and other adults, such as parents, to identify and respond to bullying on the playground can be one method for reducing bullying behavior (Craig, Henderson & Murphy, 2000). This strategy is also supported by recent meta-analyses of the literature (Ttofi & Farrington, 2009, 2011).[289,290]

In preventing bullying, community members should come together to create anti-bullying policies and procedures. It is particularly important to involve students in the process so that they feel included and valued (Brown, Jackson, & Casidy, 2006; Cunningham, Vaillancourt,

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Cunningham, Chen, & Ratcliffe, 2011). Including the entire community is important, as having more individuals involved in the process helps to ensure that multiple areas and contexts are covered (Pellegrini, 2002; U.S. Department of Health and Human Services, 2013).

Ultimately, greater exposure to an anti-bullying program model that targets multiple levels is the best course of action for schools and families. One meta-analysis of 249 studies on school violence prevention programs finds that when schools adopt a multimodal approach to prevention, through targeting different contexts (e.g., parents and students), there are positive effects when individuals are exposed to the program on a frequent basis (Wilson & Lipsey, 2007).[291] Thus, a unified front with repeated reinforcements will strengthen anti-bullying initiatives.

The communications and interrelations between school and home are imperative to the success of the Learning for Life program. When parents are involved, they have more positive perceptions and teachers have more reliable information on their students. Additionally, greater support from multiple individuals and supportive role models guards against the negative impact of bullying. The community can work together to prevent and respond to bullying through monitoring of students and development of policies. Ultimately, Learning for Life's targeting of multiple individuals and settings can be effective, so long as the messages are reinforced on a consistent basis.

THE IMPORTANCE OF CROSS-SETTING COLLABORATIONS IN LEARNING FOR LIFE

Learning for Life provides separate training videos for teachers, students, and parents, so that all parties are aware of bullying prevalence, responsiveness, and suggestions for intervention and prevention. Each of the videos share a common set of knowledge related to prevalence and explicit definitions of harassment, bullying, and cyber-bullying.

The videos encourage parents to be involved in their child's school through playground monitoring and working with schools to prevent and respond to any problems. School staff are also encouraged to involve parents in proactive and reactive bullying efforts, and students are encouraged to seek help from adults.

The student videos are age appropriate, with separate videos for Grades 3-5 and Grades 6-12. Additionally, the parent videos are available in English and Spanish.

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Seeing results: The importance of quality implementation

> *New anti-bullying programs should be disseminated using high quality standards of implementation in a way that ensures the program is more likely to have an impact. The quality of a program is undoubtedly important, but so is the way in which it is implemented. (Farrington & Ttofi, 2009, p. 70)*

Once the Learning for Life Anti-Bullying and Cyber-Intimidation Training Program is implemented, it is important to recognize that the ultimate success will be determined by how it is used within and outside of school.

When schools do not monitor program use or implementation, good programs can have contradictory effects. A meta-analysis of the literature on violence prevention programs finds that schools with more implementation difficulties had lower program effectiveness in reducing violent behaviors (Wilson, Lipsey, & Derzon, 2003).[292] Additionally, studies of anti-bullying programs have found conflicting or negative outcomes when implementation was not monitored:

- Bullying was reduced in the short-term but not the long-term (Andreou, Didaskalou, & Vlachou, 2008).[293]
- Teachers reported higher efficacy in creating a positive classroom environment and working with bullies, but students reported increases in problem behaviors (Bell, Raczynski, & Horne, 2010).[294]
- Students had more positive attitudes to victims in a two-year bullying prevention program, but varying the program duration (i.e., 3 months, 1 year, 2 years) did not change reports of bullying or school climate (Beran, Tutty, & Steinrath, 2004).[295]
- Bullying incidences increased over time in response to a peer intervention anti-bullying program (Cowie & Olafsson, 2000).[296]

Thus, how a program is implemented is a critical factor to consider. There are certain steps that schools can take to maximize Learning for Life program effectiveness through quality implementation. Based on the available research on the importance of quality program implementation to maximize anti-bullying program effectiveness, I present the following guidelines:

GUIDELINE #1

Students need to be engaged in and attentive to the program.

One study by Boulton and Boulton (2011) found that 82% of middle school students reported being inattentive to the anti-bullying messages of their teacher. Of these children, 82% believed the messages were irrelevant. A lack of student engagement and perceived relevance is a clear barrier to program implementation. If students are not paying attention, they are not going to retain the information. Further, a meta-analysis of violence prevention programs suggests that greater engagement in a program is associated with greater decreases in violent

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behavior (Wilson, Lipsey, & Derzon, 2003).[297] By making relevance and importance clear to students, and presenting the information in an engaging format, Learning for Life program impacts can be stronger.

> **GUIDELINE #2**
> Teachers need training, adequate resources, and administration support.

Quality program implementation begins with effective training. When interviewing staff members who had experienced unsuccessful bullying prevention programs, Coyle (2008) found that use of core program components and support for program use was associated with positive program effects. This suggests that teachers need to use what is included with the Learning for Life program and have a supportive school structure that encourages program use.

Studies also show that initial exposure time is important. Meta-analyses of the literature reveal that when teachers spend at least 10-15 hours in program training and students are exposed to program components for at least 20 hours, there are decreases in victimization (Farrington & Ttofi, 2009; Ttofi & Farrington, 2009, 2011).[298,299,300] Not only is training important, but the length of training and initial exposure time are equally important factors for teachers and students.

> **GUIDELINE #3**
> Teachers need to implement the program fully.

An entire program is more effective as a unit than broken down into individual components. Correspondingly, when teachers fully implement a program and use the majority of components, there are positive effects. Consider the following examples from previous studies:

- When schools implemented 75% or more of a bullying prevention program's core components, there were positive reductions in bullying (Black, Washington, Trent, Harner, & Pollock, 2010).[301]
- When 92% of teachers in one study used *all* bullying prevention program components in their instruction, there were significant positive effects on overall school climate and stronger program effects on reducing bullying (Brown, Low, Smith, & Haggerty, 2011).[302]
- When teachers implemented a bullying prevention program more closely, they saw their students as more socially skilled (Hirschsten, Edstrom, Frey, Snell, & Mackenzie, 2007) or saw greater decreases in school-wide discipline issues (Pack, White, Raczynski, & Wang, 2011).[303,304]
- Positive anti-bullying program effects were stronger when teachers implemented the entire program to a greater extent (Joronen, Konu, Rankin, & Astedt-Kurki, 2011; Olweus, 1992).[305]

The effectiveness of a program is strengthened when teachers use more of that program in the classroom. Therefore, schools should implement the Learning for Life program as fully as possible to maximize positive outcomes.

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GUIDELINE #4

The program and anti-bullying message need to become an integral part of the school culture.

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Recent meta-analyses of the literature show that teachers and students need to be exposed to the program over an extended period of time to ensure that the anti-bullying message becomes an integral part of school culture. Specifically, when teachers have at least 4 days of training practice and students are exposed to the program for 270 or more days, there are reductions in bullying and victimization (Farrington & Ttofi, 2009; Ttofi & Farrington, 2009, 2011).[306,307,308]

Adequate exposure to the Learning for Life message is key to seeing results. Schools cannot expect to effect positive change if they implement the program for a condensed or isolated amount of time. There needs to be a focus on making anti-bullying programming an essential and ongoing part of the school climate and culture. Accordingly, schools must implement and revisit Learning for Life components several times every year.

When schools and communities ensure that their target audiences are engaged, teachers and groups are adequately trained, program components are fully implemented, and the anti-bullying message becomes an important part of school culture, they strengthen the potential for program effectiveness.

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SUGGESTIONS FOR IMPLEMENTING THE LEARNING FOR LIFE ANTI-BULLYING AND CYBER-INTIMIDATION TRAINING PROGRAM

Learning for Life provides 35-40 minute training videos for parents, teachers, and students. The program also includes specialized discussion guides and activities for parents, teachers, and students. To maximize the potential of the Learning for Life program, I recommend the following:

- *Teachers should watch the training video several times each year, so that they are adequately exposed to the training and are well versed in the materials.*
- *Students should watch the videos several times each school year, and the anti-bullying messages present in the program should be integrated into the school day and overall school climate.*
- *Parents should watch the videos at least once, and preferably frequently throughout each school year.*
- *Schools should use as many of the Learning for Life program components as possible. Teachers, students, and parents should all watch the videos and take part in the associated discussion points and activities.*
- *Schools should take steps to create an enduring and supportive anti-bullying community.*

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Summary

Bullying is a ubiquitous problem in our society with pervasive short and long-term consequences, requiring a unified, community-based approach. The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program utilizes the power of individuals in immediate settings, such as in school and home, with the purpose of building a protective, anti-bullying community. The program's foundational base includes a wealth of research on the individual and collective power of schools and homes on student bullying-related outcomes.

Within the school-to-student microsystem, studies show that peers, teachers and school climates all have a profound impact. Peers, in particular, may be especially influential as studies show victims of bullying often have difficulty making friends (Marini et al., 2006) and peers can make bullying worse by ignoring or reinforcing bullies (Kärnä et al., 2010; Rigby, 2005). Educating peers on the bullying problem can ultimately help to reduce victimization through emphasizing the importance of peer friendships, encouraging pro-victim behaviors, developing student socio-emotional skills, and emboldening peers to intervene.

Teachers might be unaware of the extent of bullying in their school, necessitating the importance of teacher training and awareness building. Learning for Life awareness training can be beneficial for several reasons:
1. Training can emphasize the importance of intervention. When teachers intervene to stop bullying, they positively impact the victims and overall classroom environment (Aboud, 2007; Hektner & Swenson, 2012; Wernick et al., 2013).
2. Training can help to foster more positive student-teacher interactions. Positive student-teacher relationships aid in encouraging student disclosure of harassment and increasing feelings of student belonging (Maunder & Tattersall, 2010; Murdock & Bolch, 2005; Oliver & Candappa, 2007).
3. Training can support creating an anti-bully culture in the classroom. Creating a classroom culture that supports victims and disapproves of bullies is related to lower levels of bullying and more defending (Langdon & Preble, 2008; Pozzoli et al., 2012; Rigby & Johnson, 2006; Salmivalli et al., 2011).
4. Training can reinforce the importance of classroom anti-bullying policies. Enacting anti-bullying classroom management techniques and policies can reduce bullying (Ttofi & Farrington, 2009, 2011).

As part of the within-school toolkit for bullying reduction, the creation of a positive school climate and culture is essential. Negative school climates lead to lower levels of school connectedness, higher victimization risks, lower motivation to learn, and potentially unsafe environments (Harel-Fisch et al., 2011; Skues et al., 2005). Positive school climates, in contrast, are associated with greater support seeking, more defending behavior, and lower victimization (Barchia & Bussey, 2011; Brighi et al., 2012; Eliot et al., 2010; Gendron et al., 2011; McGrath & Noble, 2010). In creating a supportive climate, schools should enact whole school anti-bullying policies for prevention, respond quickly if bullying does occur, and take steps to assess the current school bullying culture.

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Within the home-to-student microsystem, parents have a profound impact on their children but are often left unaware of the bullying problem (e.g., Holt et al., 2009). However, when parents develop awareness, their intervention can help to stop bullying (Fekkes et al., 2005). A positive and supportive home environment protects students, in contrast to a less caring home environment, which is associated with a constellation of negative outcomes (e.g., Bowes et al., 2009; Hemphill et al., 2012; Shetgiri et al., 2013). Positive and compassionate home environments where parents are directly involved in their child's lives are particularly beneficial (e.g., Bowes et al., 2010; Wang et al., 2009).

As discussed in Bronfenbrenner's (1977) social ecological model, the interconnections between immediate settings in the mesosystem can have a profound impact on children. Thus the interconnections and communications between home and school can strengthen and support Learning for Life program messages. Specifically a community approach to prevention and response can make a difference. Parents and teachers can work together to stop bullying before it occurs through enhanced supervision and co-development of policies designed to protect the welfare of students in schools (Craig et al., 2000; Pellegrini, 2002; U.S. Department of Health and Human Services, 2013). As a result, a multi-modal approach harnesses the power of multiple groups to enact positive change.

In implementing the Learning for Life Anti-Bullying and Cyber-Intimidation Training Program, it is important to understand the essential impact of quality implementation. Poorly implemented or monitored programs can have contrasting effects. To give Learning for Life the chance to reach its full potential, I present the following research-based implementation guidelines:
1. Students need to be engaged in and attentive to the program.
2. Teachers need to have training, adequate resources, and administration support.
3. Teachers need to implement the program fully.
4. The program and anti-bullying message need to become an integral part of the school culture.

In using these implementation guidelines, schools give Learning for Life the greatest chance for success.

The Learning for Life Anti-Bullying and Cyber-Intimidation Training Program emphasizes the importance of a multi-modal approach to combating bullying, in recognition of the program's potential to achieve what Aristotle described as a "whole greater than the sum of its parts."

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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 (β = -0.11, p < .05, effect size = -0.22) and kindergarten (β = -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 (β = -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 social-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 (β = 0.20, p < .01, effect size = 0.41) and socially appropriate responses (β = 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 (β = 0.32, p < .05, effect size = 0.68 [sadness]; β = 0.19, p < .05, effect size = 0.39 [socially appropriate]) and higher levels of academic readiness in kindergarten (β = 0.45, p < .001, effect size = 1.01 [sadness]; β = 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 (β = 0.39, p < .05, effect size = 0.85). Furthermore, higher levels of emotional knowledge in preschool predicted higher levels of attention in kindergarten (β = 0.51, p < .05, effect size = 1.19), and higher levels of kindergarten attention predicted higher first grade academic performance (β = 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 (η^2 = 0.16, effect size = 0.87), higher social-emotional competence (η^2 = 0.22, effect size = 1.06), and more positive social skills (η^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 = .03), had lower levels of aggression (effect size = -0.21, p = .04) and fewer ineffective responses in problem-solving situations (effect size = -0.28, p = .03), and more effective responses in problem-solving situations (effect size = 0.35, p = .005) compared to control students. Additionally, teachers rated treatment students as less aggressive compared to control students (effect size = -0.28, p = .05). Finally, blind observers rated treatment students as more engaged in school and on-task during class (effect size = 0.29, p = .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 = .001, effect size = 0.64), more positive social skills as rated by teachers (F[2,142] = 5.41, p = .005, effect size = 0.39), and greater listening skills (F[2,142] = 6.27, p = .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 (η^2 = 0.24, effect size = 1.12) and preschool students had significantly fewer teacher-reported problem behaviors (p = .03). Researchers also observed that verbal aggression (η^2 = 0.19, effect size = 0.97), classroom disruptions (η^2 = 0.17, effect size = 0.91), and physical aggression (η^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[1,294] = 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.

[22] 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.

[23] 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).

[24] 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.

[25] 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 ($p < .05$).

[26] 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.

[27] 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).

[28] 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).

[29] 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 ($ps < .05$).

[30] 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.

[31] 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.

[32] 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).

[33] 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 (χ^2(1, N = 78) = 7.10, $p < .01$, effect size = 0.63).

[34] 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).

[35] 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).

[36] 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).

[37] Powell, Son, File, and San Juan (2010) examined how parent involvement and parent perceptions of teacher responsiveness predicted student outcomes in prekindergarten. The study included 140 children (and their parents) from 13 classrooms across 12 elementary schools. Researchers used HLM models that controlled for various covariates including, teacher quality, child ability, parent education, parent-child interactions at home, and child ethnicity. Overall, greater parental involvement in school during the prekindergarten years predicted greater prekindergarten student social skills (effect size = 0.55), greater end-of-year mathematics performance (effect size = 0.36), and fewer prekindergarten student behavior problems (effect size = 0.47).

[38] Reynolds, Mavrogenes, Bezruczko, and Hagemann (1996) examined the effectiveness of preschool on sixth grade student academic achievement. Overall, participation in preschool related to higher Grade 6 academic achievement (β = 0.41, p < .05, effect size = 0.90) and a lower likelihood of grade retention by Grade 6 (β = -0.25, p < .05, effect size = -0.52). Higher parent involvement (β = 0.39, p < .05, effect size = 0.85) also predicted higher Grade 6 academic achievement. Further, higher parent involvement (β = -0.34, p < .05, effect size = -0.72) predicted a lower likelihood of grade retention.

[39] Serpell and Mashburn (2012) collected data from 2,966 children in 704 prekindergarten classrooms across 11 states to understand how teacher perceptions of parental involvement predicted students' social outcomes. Using HLM analyses, researchers found that when prekindergarten teachers had closer relationships with parents, students had higher levels of teacher-reported social skills (B = 0.28, SE = 0.02), fewer behavior problems (B = -0.21, SE = 0.02), better student-teacher relationships (B = .35, SE = 0.03), and fewer student-teacher conflict issues (B = -0.38, SE = 0.03). Similarly, when prekindergarten teachers rated parents as having closer relationships with teachers, students' kindergarten grade teachers rated children higher in social skills (B = 0.13, SE = 0.04) and lower in student-teacher conflict issues (B = -0.09, SE = 0.04). Finally, when prekindergarten teachers reported that parents attended more voluntary activities during the school year, kindergarten teachers were more likely to report that students had fewer behavioral issues (B = -0.06, SE = 0.03).

[40] Miedel and Reynolds (1999) predicted how levels of parent involvement during prekindergarten and kindergarten predicted student outcomes. This study included 704 parents of children in the Chicago Longitudinal Study who provided retrospective reports of participation in prekindergarten and kindergarten classrooms. Researchers found that parents who participated on a weekly or more frequent basis in early childhood classrooms had children who were 38% less likely to be held back a grade (at least until age 14). Similarly, parents who participated in six or more early childhood school activities had children who were 39% less likely to be held back a grade (at least until age 14).

[41] 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 (comparison condition; e.g., preventing fires, poison prevention) (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) and students co-taught by parents and teachers had greater knowledge than students in other treatment conditions (p < .05).

[42] Webster-Stratton et al. (2008) found that less involved parents before the intervention became more involved in classrooms (effect size = 0.57) and a slight increase in involvement from parents who were already involved at pretest (effect size = 0.14).

[43] Benninga et al. (2003) examined California elementary schools that applied for a Distinguished School Award in 2000. Researchers scored schools on levels of meeting six different character education indicators (i.e., promotes values, active parent/community in character education, promotion of values throughout the school day, staff model positive values, school has a supportive climate, and students practice morality through activities and service). Researchers found significant correlations between total character education implementation scores and: SAT9 math scores (r = .19 to .22 from 1999-2002, effect sizes = 0.39 to 0.45), SAT9 language scores (r = .19 to .22 from 1999-2002, effect sizes = 0.39 to 0.45), and SAT9 reading scores (r = .18 in 1999, effect size = 0.37; r = .20 in 2001, effect size = 0.41; not significant in 2000 or 2002).

[44] Hanson, Dietsch, and Zheng (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 ($ps < .05$).

[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 ($p < .05$) and fewer problem behaviors ($p < .01$).

[50] Durlak et al. (2011) conducted a meta-analysis of 213 studies of social-emotional learning (SEL) programs that covered at least one social-emotional learning skill and included children ages 5-18. The combined study sample included 270,034 students. Overall, SEL programs were effective at improving student outcomes (Effect Size = 0.30). Specifically, students in SEL programs (compared to control programs), had more positive social-emotional skills (Effect Size = 0.57), more positive attitudes (Effect Size = 0.23), more positive social interactions (Effect Size = 0.24), fewer conduct problems (Effect Size = 0.22), less emotional distress (Effect Size = 0.24), and higher academic achievement (Effect Size = 0.27).

[51] Durlak and Wells (1997) conducted a meta-analysis of 177 prevention programs in childhood and adolescence designed to prevent social-behavioral adjustment issues. The overall effect size was significant for school-based programs (Effect Size = 0.35). Overall, program participation predicted decreases in psychological symptoms such as depression and anxiety (Effect Size = 0.25 to 0.40), and higher academic achievement (Effect Size = 0.29 to 0.30). Researchers also found that programs focused on improving children's emotional awareness and expression to be effective in elementary (ages 7-11) (Effect Size = 0.24) and older populations (age 11+, Effect Size = 0.33).

[52] Lewis et al. (2012) investigated the impact of the Positive Action (social-emotional program) on student outcomes in elementary through middle school. The study included 14 schools in matched pairs who either implemented or did not implement the Positive Action program in a high school-level free/reduced priced lunch setting. Researchers followed students as they progressed from grades 3 through 8. Students in treatment schools were less likely than students in control schools to have used illicit substances (Effect Size = -0.27), cigarettes (Effect Size = -0.21), alcohol (Effect Size = -0.35), and marijuana (Effect Size = -0.23), or to have been drunk (Effect Size = -0.20).

[53] Sklad et al. (2012) conducted a meta-analysis of 75 studies examining the effectiveness of school-based, social-emotional-behavioral programs. Overall, students in social-emotional-behavioral program schools had higher social-emotional skills (Effect Size = 0.70), helping behaviors (Effect Size = 0.39), self-image perceptions (Effect Size = 0.46), and academic achievement (Effect Size = 0.46), when compared to schools without social-emotional programs. Additionally, students in social-emotional-behavioral program schools had significant decreases in antisocial/aggressive behaviors (Effect Size = -0.43), reported mental disorders (Effect Size = -0.19), and substance use (Effect Size = -0.09).

[54] Bavarian et al. (2013) studied the effectiveness of a character-development program (Positive Action) by following students in 14 low-income schools (7 matched school pairs) as they progressed from grades 3 through 8. Overall, students in treatment schools had lower levels of absenteeism during middle school compared to comparison schools (Effect Size = -0.78). Furthermore, teachers rated students in treatment schools as having higher levels of academic motivation (Effect Size = 0.39). Students in treatment schools (vs. control schools) also had higher performance on standardized assessments in reading (Effect Size = 0.22) and math (Effect Size = 0.38).

[55] This foundational research report is not an efficacy study of the Learning for Life program. Researchers did not investigate the efficacy or effectiveness of Learning for Life's program in any studies cited in this report.

[56] Battistch et al. (1989) examined the effectiveness of a elementary school program on prosocial behavior. Researchers followed 133 students from kindergarten through fourth grade as they progressed through the program or through a comparison (no prosocial education) condition. Treatment compared to comparison students were more likely to think about others needs (F [1,129] = 12.16, p < .0008; Effect Size = 0.61), more likely to have strategies for solving problems (F [1,129] = 7.96, p < .006; Effect Size = 0.50), used more cognitive problem solving techniques (F [1,187] = 15.01, p < .0002; Effect Size = 0.57), and were more likely to solicit prosocial strategies (F(1,129) = 9.58, p < .003; Effect Size = 0.55). The relationship difference increased between K-4 (F [2,258] = 11.68, p < .0001; Effect Size = 0.43), suggesting a cumulative effect of program participation.

[57] Munoz and Vanderhaar (2006) examined the impact of the Child Development Project (CDP) on students' social and academic schools. The CDP is a school reform model that includes cooperative learning, a focus on developing caring communities and problem solving, and integration into literacy instruction. The study included 1,039 3rd–5th graders, 232 teachers, and 8 treatment and 8 control schools. After one year of implementation, researchers found positive impacts of treatment school participation on student independence (F [1,1037] = 30.48, p = .001; Effect Size = 0.34), supportive classroom environment (F [1,1037] = 6.62, p = .01, Effect Size = 0.16), positive school climate perceptions (F [1,1037] = 5.42, p = .02; Effect Size = 0.14), and peer concern for other students (F [1,1037] = 8.72, p = .003, Effect Size = 0.18). Teachers at treatment schools also believed that their school had a greater community compared to control schools (Effect Size = 0.44). Finally, there was a small effect of treatment schools on student reading scores (Effect Size = 0.06) compared to control schools.

[58] Webster-Stratton et al. (2008) examined the impact of the Incredible Years classroom management and social-emotional curriculum on K-1 students' school readiness. Students received lessons two times per month in various social-emotional topic areas, parents received homework on the program, teachers focused on positive classroom management, and teachers received training. The study included 160 classrooms (head start-grade 1), 1,768 students, and 119 teachers. After one year, students in character development schools were rated by trained (and blind) observers as significantly more ready for school (social-emotionally) compared to students from control classrooms (Effect Size = -0.82). This effect was stronger for students who started the study at very low levels of social-emotional skills (Effect Size = -2.87). (Note that lower scores reflect greater readiness/social-emotional skills). Students who had more conduct problems at pretest were also positively impacted by the intervention compared to control students (Effect Size = -0.29 to -1.65). The classroom atmosphere also improved more in treatment conditions compared to the control classrooms (Effect Size = 1.03). Children in the treatment group also performed better than control students in identifying positive problem-solving strategies (η^2 = 0.04, Effect Size = 0.41) and

labeling positive emotions (η^2 = 0.14, Effect Size = 0.81).

[59] Parker et al. (2010) compared differences in elementary-age student behavior between students in the Smart Character Choices (SCC) program and a control program that did not include character education instruction. The SCC program includes professional development for staff members, supervised implementation, use of explicit examples embedded in a history program, a school-wide approach, and instruction in social norms. The study sample included students from 77 classrooms across 12 schools. Overall, researchers observed significantly more student problem behaviors in control groups compared to treatment classrooms (β = -0.34, p < .01; Effect Size = 0.72).

[60] Jones et al. (2009) examined the effectiveness of the 4Rs Program: Reading, Writing, Respect, and Resolution on third-grade academic literacy and social-emotional outcomes. The program integrates social-emotional learning and skill building into literacy instruction. The study sample included nine matched pairs of New York City Schools, including 942 third graders, 799 parents, and 85 teachers. Researchers found that after one year, students in treatment schools had lower levels of depression symptoms (Effect Size = 0.24) and lower perceptions that peers might have a hostile or aggressive intent (Effect Size = 0.20) compared to children in control schools. Additionally, children at high risk for behavior problems and aggressive tendencies showed more positive benefits from the intervention on academics (Effect Size = 0.40) and attendance (Effect Size = 0.32) compared to students not at risk.

[61] Snyder et al. (2012) examined the impact of the Positive Action (whole school social-emotional education program) on elementary student outcomes in a matched pair, cluster randomized control trial (RCT) using 20 schools. The whole-school program addresses self-concept; social-emotional strategies and social skills; honesty; and striving for continuous improvement. At one year post-implementation (the program was implemented for three years), parents, teachers, and students reported higher levels of school quality at treatment compared to control schools (Effect Sizes = 1.26, 1.61, and 1.31, respectively). Additionally, an array of other positive outcomes resulted, such as higher student well-being (Effect Size = 1.17), involvement (Effect Size = 1.35), and satisfaction (Effect Size = 0.53) in treatment compared to control schools.

[62] Snyder et al. (2010) examined data from the Positive Action (whole school social-emotional education program) cluster RCT using 20 schools. Researchers found that being in a treatment (Positive Action) school predicted the following positive outcomes one year after the three-year implementation: more positive math scores (Effect Sizes = 0.52 to 1.10), more positive reading scores (Effect Sizes = 0.54 to 0.65), fewer student absences (Effect Size = -0.65), and fewer student suspensions (Effect Size = -0.87).

[63] Snyder et al. (2013) examined additional data from the Positive Action cluster RCT. Researchers found that students in treatment schools showed higher academic engagement according to students (B = 0.27, SE = .04, p < .001) and teachers (B = 0.13, SE = .05, p < .01) compared to control schools.

[64] Durlak and Wells (1997) conducted a meta-analysis of 177 prevention programs for social-behavioral adjustment. Overall, programs that focused on interpersonal problem-solving had positive impacts on elementary-age populations (Effect Size = 0.36) compared to students in control groups.

[65] Taylor et al. (2002) examined the impact of greater elementary school participation in the Reach Out to Schools: Social Competency Program (SCP) on middle school adjustment. The SCP program is offered in grades K-5 and offers lessons related to positive social-emotional development in communication, self-control, and problem solving. The study included data from 277 students, 166 parents, and 13 teachers. Sixth grade students in the treatment group had been in the SCP program for two or more years, whereas students in the comparison group had one or fewer years of program exposure in elementary school. Overall, girls with greater program exposure had more positive middle school adjustment compared to those with less program exposure, according to student self-reports (Odds Ratio = 3.0; Effect Size = 0.61) and teacher reports (Odds Ratio = 2.5; Effect Size = 0.51), and teachers rated girls as more assertive (Effect Size = 0.45). Furthermore, boys who had greater program exposure had lower self-reports of fighting with others (Odds Ratio = 2.3; Effect Size = 0.46) and higher self-reported levels of self-control (Effect Size = 0.45) than boys with less program exposure.

[66] Oldfield, Hays, and Megel (1996) evaluated the effectiveness of the play, *Touch*, on elementary student knowledge related to inappropriate touch prevention-techniques. The 30-minute play covers different types of touch,

how to say no, and interacting with strangers. Students were randomly assigned to watch or not watch the play. The sample size was 1,269 students in four schools. Overall, children in the treatment group (compared to the control group) and older children (compared to younger) had more knowledge about preventing abuse, $F (1,1245) = 130.37$, $p < .001$; Effect Size = 0.65). A sample of treatment students also retained the information acquired from watching the play over a three-month period.

[67] Wuertele et al. (1986) investigated different training approaches for preventing child sexual abuse in a sample of 71 elementary and late elementary/early middle school students. Students a) watched a short play (filmed), called *Touch*; b) participated in a 50-minute prevention training program; c) participated in the play and program; or d) participated in a true control condition. Overall, there was a significant multivariate effect of condition ($F [6,124] = 2.87$, $p < .02$; Effect Size = 0.30). Students in the training group and the training+play groups had significantly greater knowledge about personal safety responses than those in the control condition. Additionally, student knowledge related to personal safety and prevention techniques presented in the play group and the training+play group increased at a three-month follow-up.

[68] Adamski et al. (2013) examined links between grade 4-6 parental involvement in school and student performance. Overall, greater student perceptions of parental involvement related to higher perceptions of classroom cooperation ($r = .33$, Effect Size = 0.70) and peer cohesion in the class ($r = .37$, Effect Size = 0.80). Additionally, greater parent involvement related to greater enjoyment of Spanish lessons ($r = .52$; Effect Size = 1.22) and greater achievement in Spanish classes ($r = .16$; Effect Size = 0.32).

[69] Griffith (1996) investigated the relation between parental involvement (based on parent survey measures) and student achievement. Using regression models, Griffith (1996) found parent feelings of empowerment (i.e., feeling that the school wants their support, is accommodating to their needs) ($\beta = 0.29$, $p < .05$; Effect Size = 0.61) and involvement in their child's school (e.g., participation in school meetings, parent-teacher nights) ($\beta = 0.54$, $p < .001$; Effect Size =1.28) were unique predictors of student state achievement test scores, even after controlling for ethnicity, school size, and teacher experience.

[70] Lee and Bowen (2006) examined relationships between parental involvement and grade 3-5 student outcomes. Parent-school involvement and parents' academic expectations for their children positively predicted academic achievement ($\beta = 0.21$, Effect Size = 0.43; $\beta = 0.23$, Effect Size = 0.47) respectively).

[71] McWayne et al. (2004) examined relations between parent involvement and kindergarten student outcomes in an urban setting. Through various correlations, researchers found that more parent-school interactions related to greater responsibility, cooperation, and play in children. In contrast, greater barriers to parental involvement related to greater behavioral issues (e.g., hyperactivity, externalizing problems) and lower academic performance.

[72] 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-readiness. Researchers found that parents who were less involved before the social-emotional intervention became more involved in classrooms (Effect Size = 0.57), and there was a slight positive effect of involvement on parents who were already involved at pretest (Effect Size = 0.14).

[73] Farrell et al. (2003) investigated the impact of the Responding in Peaceful and Positive Ways (RIPP) program on violence-prevention in middle school students. The program has 25 lessons and encourages students to problem-solve, work together to resolve conflicts, and make good choices. The study included 476 seventh graders who participated in the 6th-grade version of the program during the previous year. Researchers assigned seventh graders to receive the treatment (RIPP for a second year) or control (no RIPP, but they had one year of participation from grade 6). Overall, students in the control group were 2.1 times more likely than the intervention group to conduct violent offenses in their 8th grade year ($p < .05$). Students in the treatment group had greater problem-solving knowledge than students in the control condition immediately after the study (Effect Size = 0.36) and six months later (Effect Size = 0.45). Boys in the treatment group (compared to control) also had lower rates of aggression (Effect Size = 0.37), and stronger nonviolence beliefs (Effect Size = 0.27). Additionally, students with high levels of violence at pretest had lower violence scores in the treatment (vs. comparison) group at 6-month posttest ($Z = 2.15$, $p < .05$) and 12-month posttest ($Z = 2.2$, $p < .05$). Researchers found similar effects for incidence of aggression ($Zs =$

1.96 to 2.37) and juvenile delinquency (Zs = 2.01 to -3.09) at 6-12 months post-implementation.

[74] Hahn et al. (2007) found that middle school programs that aim to reduce violence or student aggression by educating about violence, aggression, or other social-emotional issues are effective. In middle school, participation in these programs (compared to no exposure to a social-emotional program) was associated with a 7% decrease in violent behavior.

[75] Holtzapple et al. (2011) examined the impact of a character education program, Capturing Kids' Hearts – Campus by Design, on 8,350 students in grades 7-12. Schools were assigned to use or not use the character education program, which focuses on self-regulation, self-efficacy, coping, and other social-emotional skills. Researchers found that prosocial behaviors in students increased in the treatment condition (24% to 57% from pretest to posttest), but decreased in the control condition (23% to 12%) (p = .007). Additionally, treatment schools had a greater decrease in the number of discipline referrals over the course of the study (Effect Size = -2.10), translating to an average 11% decrease in control school discipline referrals, compared to a 22% decrease in treatment schools.

[76] Spence et al. (2003) evaluated the impact of the Problem Solving for Life program on preventing depression in a sample of 1,500 8th grade students. Researchers randomly assigned schools to treatment conditions (i.e., those that use the Problem Solving for Life program) or control (i.e., no program use) conditions. High-risk students in the treatment group had a greater decline in depression scores (η^2 = .06, Effect Size = 0.51) and a greater increase in problem-solving scores (η^2 = .02, Effect Size = 0.29) compared to those students in the control group. There was also a significant difference for low-risk depression students, where students in the control group increased in depression scores at posttest and those in the treatment declined slightly (η^2 = .01; Effect Size = 0.20). Additionally, treatment students at low-risk of depression had higher problem-solving performance after the intervention, compared to control students (η^2 = .03, Effect Size = 0.36).

[77] Shoshani and Sloane (2013) examined how various character strengths related to adjustment in middle school. Interpersonal skills were a significant predictor of adjustment in middle school (βs = .15 to .31, Effect Sizes = 0.30 to 0.65). Interpersonal skills also served as significant predictors of overall life satisfaction (β = 0.12, Effect Size = 0.24). Furthermore, higher ratings of self-regulation and control predicted greater adjustment in all areas (βs = 0.10 to 0.42, Effect Sizes = 0.20 to 0.93), higher GPA (β = 0.33, Effect Size = 0.70), greater positive affect (β = 0.18, Effect Size = 0.37), less negative affect (β = -0.34, Effect Size = -0.72), and higher life satisfaction (β = 0.16, Effect Size = 0.32). The researchers suggested the importance of building students' social-emotional skills to positively influence their adjustment and well-being in middle school.

[78] Qualter et al. (2007) explored how levels of social-emotional competence predict student coping in the middle-to-high school transition. The study included 169 students in year 1 and 170 students in year 2. Using ANCOVAs, researchers found students who were average or high in social-emotional competence had a higher GPA (F [2,325] = 6.43, p = .002, Effect Size = 0.28) compared to students with low competence. Researchers also found that students who started the study with high or average levels of social-emotional competence (compared to students with low competence) had higher levels of academic competence (F [2,315] = 13.28, p < .001, Effect Size = 0.41), social skills (F [2,315] = 6.97, p = .001, Effect Size = 0.30), and athletic confidence (F [2,314] = 6.19, p = .002, Effect Size = 0.28). Furthermore, students who started with high levels of social-emotional competence (compared to those with average or low competence) had higher levels of understanding related to appropriate social behaviors (F [2,313] = 8.76, p < .001, Effect Size = 0.33) and higher levels of self-worth (F [2,315] = 12.64, p < .001, Effect Size = 0.40).

[79] O'Brien et al. (1999) conducted a study with at-risk 7th graders who participated in the Career Horizons one-week summer program (a career exploration program that aims to build confidence in career planning and help students think about career interests). A total of 57 students participated in the summer program. After the program, at a descriptive level, students had greater confidence in their career exploration pathway, greater confidence in the link between their academic performance and their career exploration goals, and greater overall self-efficacy. However, these results were not significant because of large standard deviations. There was a significant difference after the program in the number of students who showed greater congruence between personal interests and possible career pathways (χ^2 = 5.33, p < .05; Effect Size = 0.64).

[80] Turner and Lapan (2005) investigated influences of the Mapping Vocational Challenges (MVC) program (approximately 100 minutes of computer-based instructional time) on middle school students' career planning, efficacy, and career interests. The MVC program provides information on different careers, discusses gender stereotyping in occupations, and helps students to think about different career pathways. The study included 160 middle school students assigned to treatment or control using a quasi-experimental design (classrooms randomly assigned to intervention or not). Overall, students in the treatment group (compared to the control group) had greater increases in career exploration self-efficacy (Effect Size = 0.20) and efficacy in their understanding of relationships between schools and careers (Effect Size = 0.19). Researchers also found that students in the treatment group showed more interest in non-traditional (by gender) careers compared to students in the control group (Effect Sizes = 0.24 to 0.49).

[81] Wyss et al. (2012) explored the effectiveness of showing middle school students videos of interviews with science, technology, engineering, and math (STEM) professionals on middle school students' interest in pursuing STEM careers. The study sample included 84 students, with approximately half in control groups who did not watch the videos, and the other half in treatment groups who watched the videos. Teachers showed the eight videos to treatment students over an 8-week period. Overall, students in the treatment group had greater interest in STEM careers after watching all eight interviews compared to control students (partial η^2 = 0.08; Effect Size = 0.59).

[82] Wilcox (2010) compared 10 high-performing middle schools to six average-performing middle schools using data from interviews with school and district administrators.

[83] Qualter et al. (2007) explored how training in social-emotional competence could lessen the negative outcomes associated with the transition to high school. The study included 169 freshman students in a control group who received no intervention at the start of high school, and 170 freshman students in a treatment group who received a social-emotional competence intervention at the start of high school. The Emotional Intelligence program was created by the research team and included books for teachers and principals; games for peer mentors; and support resources. The social-emotional competence intervention had a positive impact on students who started the study with low emotional intelligence (compared to those with average or high emotional intelligence (F [1,320] = 13.10, p < .001; Effect Size = 0.40). Students who started the study with low emotional intelligence increased their scores over time, whereas those students with average and high levels of emotional intelligence decreased over time. Similarly, students in the intervention group (compared to the control group) increased over time in academic competence (F [1,315] = 10.89, p = .001, Effect Size = 0.37), social skills (F [1,315] = 6.60, p = .01, Effect Size = 0.29), and understanding of appropriate social behavior (F [2,313] = 4.00, p = .05; Effect Size = 0.23).

[84] Hahn et al. (2007) examined the effectiveness of different K-12 violence and aggression prevention programs that educated about these issues or other related social-emotional issues, including self-awareness, self-esteem, positive social interactions, conflict resolution, etc. Across all grade levels, prevention program participation was associated with a 15% decrease in violent behavior. In high school, the programs were associated with a 29% decrease in violent behavior. Programs that focused on social skills were associated with 19% reductions in violent behavior.

[85] Parker et al. (2006) surveyed a sample of 1,270 first-year college students during their first weeks at a university to understand relationships between emotional intelligence/competence and student retention in college after one year. Overall, students who stayed in college after one year (compared to those who dropped out in the first year) had higher levels of emotional intelligence (η^2 = .05, Effect Size = 0.46), interpersonal skills/competence (η^2 = .02, Effect Size = 0.29), intrapersonal competence (η^2 = .02, Effect Size = 0.29), adaptability to situations (η^2 = .02, Effect Size = 0.29), and overall stress management skills (η^2 = .04, Effect Size = 0.41).

[86] Parker, Summefeldt, Hogan, and Majeski (2004) surveyed a sample of 372 college freshman to understand associations between emotional intelligence and academic performance in college. Researchers categorized students as academically successful if they had a college GPA above 79% and as academically unsuccessful if they had a college GPA below 60%. Overall, academically successful students had higher overall emotional intelligence (η^2 = 0.34, Effect Size = 1.44), higher levels of intrapersonal competence (η^2 = 0.19, Effect Size = 0.97), better ability to manage stress (η^2 = 0.20, Effect Size = 1.00), and higher ability to adapt (η^2 = 0.41, Effect Size = 1.67).

[87] Schlaefi et al. (1985) conducted a meta-analysis of 55 studies examining the effectiveness of moral education programs (e.g., class discussion of dilemmas, using defining issues tests). The researchers found an average effect size of 0.28 in favor of moral education programs compared to programs that did not focus on moral education. Programs that explicitly focused on moral dilemma discussions were more effective at increasing moral reasoning than programs without this component (Effect Size = 0.41).

[88] McWhirter et al. (2000) examined the influence of a nine-week career education class on 166 high school sophomores, based on career-related outcomes. The class covered a basic assessment of interest, money management, resume writing, and job opportunities, among others. Researchers surveyed students before and after participation in the class, with a final survey at the end of the second quarter. Overall, treatment students' efficacy in career decision-making abilities was significantly higher than control students (who had not yet participated in the intervention) immediately after the program but decreased one quarter after the intervention ended ($\eta^2 = 0.14$). Treatment students' confidence in their ability to complete various career-related tasks (e.g., complete a job application, describe strengths) showed a similar pattern of growth (compared to control) at posttest but declined after one quarter ($\eta^2 = .06$; Effect Size = 0.51). Treatment students' beliefs that they would have a positive career future showed a similar pattern ($\eta^2 = .06$ Effect Size = 0.51). Finally, participation in the intervention (compared to control) was related to a greater likelihood of change in career expectations (χ^2 (1, N = 154, 15.4, $p < .001$; Effect Size = .67).

[89] Gore et al., (2003) examined associations between schools that provide some sort of career pathway in high school (e.g., classes, internships) and students' postgraduate experiences. The study sample included 1,143 high school students interviewed in their senior year of high school and then again 2.5 years later. Overall, researchers found that students who had a career pathway in high school had positive perceptions of their current job quality ($B = 0.24$, SE = 0.06), believed their high school program prepared them more for their careers ($B = .26$, SE = 0.08), and had a positive outlook about their career pathway ($B = 0.24$, SE = 0.02) compared to those students who did have a career pathway in high school.

[90] Neumark and Rothstein (2003) used data from the National Longitudinal Survey of 1997 to examine relationships between school-to-career programming and student outcomes. Researchers followed students in high school and continued three years later to post-graduate experiences (sample size: 4,234 students). Overall, mentoring (e.g., by an expert in the field) and school enterprise programs (i.e., the school supports students in producing a product that they can sell to others; students managed the project) programs were related to a 14-22%–greater probability of attending college. Additionally, work experiences aligned with academic experience (i.e., cooperative education) and internship models were associated with an 11%-greater probability of post-high school employment.

[91] Visher et al. (2004) analyzed data from the National Longitudinal Survey of Youth 1997 to determine relationships between career-exploration programs and student outcomes. The study sample included 5,372 students (surveyed in 1997 and 2000). Researchers found that students who participated in at least one type of career-exploration program were more likely to take the SAT or ACT exam. Additionally, students in these programs had a significantly greater likelihood of graduating from high school and attending college.

[92] Roderick, Coca, and Nagaoka (2011) investigated how different factors influenced high school students' application and participation in higher education. The study sample included 58 schools and more than 2,000 students from Chicago Public schools. Using HLM analyses, researchers found that greater teacher beliefs that schools were a supportive college-climate predicted a greater amount of students planning for college (Coefficient = 0.50, p = 0.00), more students applying to college (Coefficient = 0.65, p = 0.00), more students being accepted to college (Coefficient = 0.84, p = 0.00), and a greater match between student abilities and their college choice (Coefficient = 0.44, p = 0.01). In other words, students in schools with greater college climates were 13% more likely to plan for college, 10% more likely to apply, 9% more likely to be accepted, and 12% more likely to have a better college match than students from schools with less supportive college climates.

[93] Hart et al. (2007) examined high school civic education and participation in relation to civic behavior in adulthood. Researchers used data from 6,925 high school participants (as they transitioned into adulthood) in the National Educational Longitudinal Survey (NELS) 1988. Overall, participation in service learning during high school (voluntary

service learning, $B = 4.51$, $p < .05$; voluntary and required service, $B = 4.53$, $p < .05$; required service, $B = 3.21$, $p < .05$) (compared to no service learning) related to higher levels of civic knowledge in high school.

[94] Hart et al. (2007) used data from 6,925 high school participants (as they transitioned into adulthood) in the National Educational Longitudinal Survey (NELS) 1988. Overall, greater civic knowledge in high school ($B = 0.02$, SE = 0.00, $p < .05$) and greater volunteering behaviors in high school (voluntary service, $B = 0.44$, SE = 0.10, $p < .05$; voluntary and required service $B = 0.53$, SE = 0.14, $p < .05$; required service, $B = 0.52$, SE = 0.16, $p < .05$))—compared to no service learning—predicted voting trends in local elections in adulthood (eight years post-high school). Additionally, greater civic knowledge in high school ($B = 0.02$, SE = 0.01, $p < .05$) and service in high school (voluntary service, $B = 0.45$, SE = 0.10, $p < .05$; voluntary and required service, $B = 0.33$, SE = 0.15, $p < .05$; required service, $B = 0.44$, SE = 0.16, $p < .05$)—compared to no service—predicted voting in the 2000 presidential election after high school (eight years post-high school).

[95] Morgan and Streb (2001) investigated relations SE = 0.10hips between student service learning experiences in high school and associated outcomes. The study sample included 210 students from 10 schools in Indiana. When students felt like they had a greater voice/leadership role in their service learning projects, they also felt more confident in their ability to make a difference in their community or government ($B = 0.34$, SE = 0.09 $p < 0.001$); felt more competent about their abilities ($B = 0.49$, SE = 0.08, $p < 0.001$); paid more attention to politics ($B = 0.37$, SE = 0.07, $p < 0.001$); wanted to make a difference in their community ($B = 0.39$, SE = 0.09, $p < .001$); had more positive attitudes toward older adults ($B = 0.17$, SE = 0.06, $p < .01$); and had more positive attitudes toward individuals who are disabled ($B = 0.25$, SE = 0.10, $p < .01$).

[96] Duckworth and Seligman (2006) examined how self-discipline and self-control (e.g., listening to a lecture instead of daydreaming, doing homework instead of going outside) related to academic achievement. Overall, 8th grade girls were more self-disciplined than 8th grade boys (Effect Sizes = 0.41-0.71; $\beta = .33$), and higher self-discipline was related to higher GPA ($\beta = 0.50$, Effect Size = 1.15). When researchers explored these relationships in a regression model, they found self-discipline ability mediated the relationship between gender and GPA, emphasizing the importance of the relationship between self-discipline ability and academic achievement.

[97] Duckworth and Seligman (2005) conducted a series of two experiments with 8th grade students (Study 1: n = 140; Study 2: $n = 164$); researchers predicted grades using self-discipline and IQ. Overall, researchers found self-discipline to be a more effective predictor (compared to IQ) of fall GPA ($p < .001$), spring/final GPA ($p < .001$), high school admission ($p < .001$), time spent on homework ($p < .001$), time spent watching television ($p = .01$), and time of day students start homework ($p < .001$). Self-discipline ability ($\beta = 0.65$, Effect Size = 1.71) predicted nearly two times the variance in GPA compared to IQ ($\beta = 0.25$, Effect Size = 0.52).

[98] Donohue et al. (2005) conducted a study with 92 high school adolescents who received summer training (five 2-3 hour workshops in money management or work-related social skills). Students who had money-management training had greater knowledge and skills in this area compared to those students who participated in a social skills training ($F [1,90] = 6.53$, $p = .01$, Effect Size = 0.54).

[99] Sarason and Sarason (1981) explored the effectiveness of a social skills training intervention in a low-achieving high school. Study participants included 127 students in a 9th grade health class assigned to receive live social-skills training (role modeling), a taped social-skills intervention, or no social-skills intervention. Students in the two intervention groups were better able to offer solutions to problem-solving situations ($F [2,106] = 7.55$, $p < .01$) and were able to offer a greater number of alternative options to consider problem-solving situations ($F [2,106] = 4.39$, $p < .02$); the alternatives offered by intervention students were also more effective ($F [2,106] = 3.40$, $p < .05$). In job interview scenarios, students in the live training group (compared to the control group) were rated more positively by the interviewer ($F [2,11] = 7.28$, $p < .03$, Effect Size = 1.63) and maintained better eye contact ($F [2,11] = 19.88$), $p < .01$, Effect Size = 2.69).

[100] Ames and Archer (1988) examined the relationship between different classroom motivational goal structures and student motivation. The study included 177 students in grades 8-11. Researchers found (using regression analyses) that when students believed their classroom promoted mastery goals, they had more effective study strategies (partial $r = .49$; Effect Size = 1.12); preferred challenging learning tasks over easy tasks where they would experience

little difficulty (partial r = .34; Effect Size = 0.72); and had more positive classroom attitudes (partial r = .63, Effect Size = 1.63).

[101] Cepeda et al. (2006) conducted a meta-analysis of 317 studies related to the effectiveness of distributed practice compared to massed practice. Researchers found that students who repeatedly revisited materials over time (i.e., distributed practice) had better memory for the content than students who only practiced or reviewed material in a small isolated amount of time (i.e., massed practice) (Effect Size = 1.45).

[102] Donovan and Radosevich (1999) conducted a meta-analysis of 63 studies on the effects of practicing material across longer vs. shorter periods (distributed vs. massed practice). Researchers found that having repeated practice over longer periods was more effective for memory and recall (Effect Size = 0.46), particularly when tasks were viewed as more complex.

[103] Parmer et al. (2009) conducted a study with 115 second grade students in six classrooms who were assigned to one of three conditions (1. Nutrition learning and Gardening component; 2. Nutrition learning only; 3. Control). Overall, the researchers found that students who received nutrition learning had higher levels of nutrition knowledge (ps < .001), were more likely to say that they would try fruits and veggies (p = .005), and rated fruits and vegetables as being appetizing (ps < .001). During observations, researchers noticed students who had the nutrition and gardening component were more likely to choose vegetables in their school lunches compared to the other groups (p < .01 for gardening group). Thus, students with active/experiential learning through gardening had greater behavior change (compared to both groups) and knowledge increases (compared to control group only).

[104] Alfieri (2011) conducted two separate meta-analyses of the literature on unassisted and assisted discovery (i.e., active learning). The first meta-analysis of 108 studies compared unassisted discovery learning to explicit instruction of students. Overall, unassisted discovery learning was less effective than explicit instructional methods (Effect Size = -0.38). Unassisted discovery learning was also less effective than explicit instruction for learning verbal/social skills concepts (Effect Size = -0.95). The second meta-analysis of 56 studies compared enhanced discovery (e.g., guided, feedback provided) to a wide variety of other instructional techniques (e.g., unassisted discovery, explicit instruction). Overall, enhanced discovery methods were more effective than other instructional techniques (Effect Size = 0.30). This positive effect for enhanced discovery was also evident when students were learning verbal/social skills (Effect Size = 0.58). Providing explanations (Effect Size = 0.36) and guided discovery (Effect Size = 0.50) were also particularly effective compared to other instructional methods. The results suggest the importance of giving students feedback, some level of support, and explanations as they actively learn material.

[105] Kyndt et al. (2013) conducted a meta-analysis of 65 articles to examine impacts of cooperative learning (vs. traditional instruction) on student outcomes. Researchers defined cooperative learning as working together in small groups on tasks and compared cooperative learning to whole group instruction. Overall, cooperative learning had a greater impact on student outcomes compared to whole group instruction (Effect Size = 0.31). Additionally, students in cooperative learning had higher achievement (Effect Size = 0.54) and more positive attitudes (Effect Size = 0.15) when compared to whole group instruction.

[106] Ashdown and Bernard (2012) examined the impact of providing elementary students with explicit instruction in social-emotional competence. The study sample included 99 students who were in four classrooms. Researchers randomly assigned two classrooms to use the explicit social-emotional program (You Can Do It!) and two classrooms to receive no social-emotional instruction (control). Overall, receiving explicit instruction in social-emotional skills/competence was associated with more positive social well-being (η^2 = .16; Effect Size = 0.87), higher social-emotional competence (η^2 = 0.22), and more positive social skills (η^2 = 0.32; Effect Size = 1.37), compared to students in control classrooms.

[107] Durlak et al. (2011) conducted a meta-analysis of 213 studies of social-emotional learning programs for students ages 5-18. Researchers coded interventions dichotomously as meeting or not meeting SAFE criteria. One of the criteria to be considered "SAFE" was that the program had an explicit structure. Overall, programs that met SAFE criteria were more effective than control programs—social-emotional skills (Effect Size = 0.69); social-emotional attitudes (Effect Size = 0.24); positive social interactions (Effect Size = 0.28); fewer conduct problems (Effect Size = 0.24); less emotional distress (Effect Size = 0.28); and higher academic achievement (Effect Size = 0.28) —at

increasing positive student outcomes. Additionally, programs that did not meet SAFE criteria were only significantly better than controls in three of six possible outcome areas—social emotional attitudes (Effect Size = 0.16); fewer conduct problems (Effect Size = 0.16); and higher academic achievement (Effect Size = 0.26)].

[108] Parker, Nelson, and Burns (2010) investigated differences in elementary-age student behavior between students in the Smart Character Choices (SCC) program and a control group. The SCC program includes use of explicit examples embedded in a history program and a school-wide approach. The study sample included students from 77 classrooms across 12 schools. Researchers observed significantly more student problem behaviors in control classrooms compared to treatment classrooms (β = -.34, p < .01; Effect Size = 0.72).

[109] Payton et al. (2008) summarized research related to the impact of universal (for all students) social emotional learning programs, for specific groups of students with behavioral and emotional problems, and for students in after-school programs. The Universal review included 180 studies of 277,977 students. Overall, universal programs that met SAFE criteria (M) were more effective than those not meeting SAFE criteria (NM) at improving student outcomes. Students in programs that met SAFE criteria had higher social emotional learning skills (M Effect Size = 0.69 vs. NM Effect Size = -0.30); more positive social attitudes (M Effect Size = 0.25 vs. NM Effect Size = 0.14); more positive interactions with others (M Effect Size = 0.28 vs. NM Effect Size = 0.02); fewer conduct problems (M Effect Size = 0.25 vs. NM Effect Size = 0.16); less emotional distress (M Effect Size = 0.27 vs. NM Effect Size = 0.17) and higher academic achievement (M Effect Size = 0.29 vs. NM Effect Size = 0.23).

[110] Durlak et al. (2011) conducted a meta-analysis of 213 studies of social-emotional learning programs that focused on at least one social-emotional learning skill and included children ages 5-18. Overall, programs that met SAFE criteria were more effective than control groups at increasing positive student outcomes. For example, participants demonstrated more positive social-emotional skills (Effect Size = 0.69); more positive social-emotional attitudes (Effect Size = 0.24); more positive social interactions (Effect Size = 0.28); fewer conduct problems (Effect Size = 0.24); less emotional distress (Effect Size = 0.28), and higher academic achievement (Effect Size = 0.28)] at increasing positive student outcomes. Additionally, programs that did not meet SAFE criteria were only significantly better than control groups in three of the six outcome areas (i.e., social emotional attitudes [Effect Size = 0.16], fewer conduct problems [Effect Size = 0.16]; and higher academic achievement [Effect Size = 0.26]).

[111] Payton et al. (2008) summarized research related to the universal impact (for all students) of social-emotional programs, for specific groups of students with behavioral and emotional problems, and for students in after-school programs. The universal review included 180 studies consisting of 277,977 students. Overall, universal programs meeting SAFE criteria (M) were more effective than programs not meeting SAFE criteria (NM) at improving student outcomes. Students in programs that met SAFE criteria had higher social-emotional learning skills (M Effect Size = 0.69 vs. NM Effect Size = -0.30); more positive social attitudes (M Effect Size = 0.25 vs. NM Effect Size = 0.14); more positive interactions with others (M Effect Size = 0.28 vs. NM Effect Size = 0.02); fewer conduct problems (M Effect Size = 0.25 vs. NM Effect Size = 0.16); less emotional distress (M Effect Size = 0.27 vs. NM Effect Size = 0.17); and higher academic achievement (M Effect Size = 0.29 vs. NM Effect Size = 0.23).

[112] Durlak et al. (2011) conducted a meta-analysis of 213 studies of social-emotional learning programs for students ages 5-18. Programs that encountered implementation problems were only significantly better than controls in two of six outcome areas (e.g., social-emotional attitudes, Effect Size = 0.19; fewer conduct problems, Effect Size = 0.15).

[113] Hanson et al. (2012) examined influences of the Lessons in Character (LIC) program on elementary student outcomes and found no significant program effects. However, researchers noted that only 30% of teachers implemented the recommended number of lessons in the first year of the program, and only 23% implemented the recommended number of lessons in the second year. The researchers speculated that one possible reason for a lack of effects could have been poor program implementation.

[114] The Social and Character Development Research Consortium's Institute of Education Sciences report (2010) provided evaluation results concerning the impact of seven different character education programs on students' behavior in grades 3-5. Researchers found no evidence of program impacts on student outcomes and perceptions of school climate. However, they noted that poor implementation might have been to blame.

[115] Hallam (2009) did not monitor how varied levels of program implementation related to program outcomes for a social-emotional program in elementary school. As a result, they were an array of contrasting results with respect to age, gender, self-esteem, motivation, and academics.

[116] In analyzing 542 studies of child and adolescent positive health and prevention programs (i.e., programs focused on health, academics, drug abuse, violence and bullying prevention, and positive youth development), Durlak and DuPre (2008) found that greater program implementation related to outcomes that were more positive. Additionally, researchers noted that most studies report implementation around 60%, with some reporting 80%. However, researchers noted that no studies had 100% implementation because teachers and participants modify and adapt programs in different ways.

[117] Hooker and Brand (2009) noted that greater participation in a college and career readiness program was related to a higher likelihood of positive college and career readiness outcomes.

[118] Durlak et al. (2011) conducted a meta-analysis of 213 studies of social-emotional learning programs. Social-emotional learning programs with no implementation problems were more effective than control programs in all six outcome areas (e.g., more social-emotional skills [Effect Size = 0.86]; more social-emotional attitudes [Effect Size = 0.29]; greater social interactions [Effect Size = 0.31]; fewer conduct problems [Effect Size = 0.27]; less emotional distress [Effect Size = 0.35]; and higher academic achievement [Effect Size = 0.33]).

[119] Benninga et al. (2003) examined California elementary schools that applied for a Distinguished School Award in 2000. Researchers scored schools on how well they met the following six different character education indicators: 1) promotes values; 2) active parent/community involvement in character education; 3) promotion of character education values throughout the school day; 4) staff models positive values for students; 5) supportive school climate; and 6) student practice through hands-on activities and service. Overall, there were significant correlations between character implementation scores and SAT9 math (r = .19 to .22 from 1999-2002 [Effect Sizes = 0.39 to 0.45]), SAT9 language (r = .19 to .22 from 1999-2002 [Effect Sizes = 0.39 to 0.45]), and SAT9 reading scores (r = .18 in 1999, r = .20 in 2001 [Effect Sizes = 0.36, 0.41 respectively]). There was also a significant relationship between total implementation scores and California Academic Performance Index scores (r = .18 to .22 from 1999-2002 [Effect Sizes = 0.37 to 0.45]).

[120] Sklad et al. (2012) conducted a meta-analysis of 75 studies of social-emotional-behavioral programs and found that the wealth of positive program effects were still significant over the long-term, but many of the effect sizes grew smaller with increased distance between the intervention and present day.

[121] Battistich et al. (1989) examined the effects of a prosocial elementary school program on students as they progressed from kindergarten through fourth grade. After following 133 children over four years, researchers found that the relationship difference between treatment and comparison groups increased between grades K-4 (F [2,258] =11.68, p < .0001, Effect Size = 0.43), suggesting a cumulative effect of program participation.

[122] Snyder et al. (2012) examined the impact of the Positive Action social-emotional program on elementary student outcomes in a matched pair, cluster RCT using 20 schools. Researchers found that the gap between treatment and comparison school outcomes grew over time, with strongest impacts seen four years after the program began.

[123] Taylor et al. (2002) examined the effects of greater elementary school participation in the Reach Out to Schools: Social Competency Program during middle school on adolescent adjustment in middle school. Overall, students who participated in the program for two or more years had more positive outcomes compared to students who participated for one or fewer years.

[124] Schlaefi et al. (1985) conducted a meta-analysis of 55 studies examining the effectiveness of moral education programs (e.g., class discussion of dilemmas, using the defining issues tests). Programs that were at least four weeks in duration were more effective than programs shorter in duration (short-term, 0-3 weeks [Effect Size = 0.09]; medium-term, 4-12 weeks [Effect Size = 0.32]; long-term, 13-28 weeks [Effect Size = 0.30]).

[125] Merritt et al. (2012) explored the relationship between positive teacher emotional support and first grade children's social behaviors and skills. The observational study included 178 students and 36 teachers from rural schools. Research assistants visited each classroom five times over the course of the school year. In the study, greater teacher emotional support related to less student aggression in the classroom (teacher emotional support explained 36% of the variance in classroom aggression). Additionally, greater teacher emotional support related to higher levels of self-control in the classroom (teacher emotional support explained 21% of the variance in self-control).

[126] Richards et al. (2012) found that when students perceived their schools as safer, students reported lower levels of physical (Effect Size = -0.16) and verbal (Effect Size = -0.08) bullying.

[127] Wilcox (2010) compared the school environments of 10 high-performing middle schools to 6 average-performing middle schools, using interview data from school and district administrators.

[128] Grigal, Hart, and Migliore (2011) used data from the National Longitudinal Survey 2 (NTLS2) to compare transition planning in a population of students with intellectual disabilities to transition needs of students with other disabilities (e.g., autism, deafness, blindness, emotional disorders, hearing or physical impairments). Students with intellectual disabilities were less likely to attend college or participate in competitive employment, less likely to have a paying job, and less likely to earn more than $5.15 hourly in their current job compared to students with other disabilities (ps < .05).

[129] Spann, Kohler, and Soenksen (2003) reported that 83% of parents of high school-age children with autism spectrum disorders or developmental disabilities believed schools were not doing enough to help their children meet life skill needs.

[130] This foundational research paper is not an efficacy study of Learning for Life's Champions™. Researchers did not investigate the impact of Learning for Life's Champions™ Daily Living or Transition to Work programs in any studies cited in this report.

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

[132] Blackorby et al. (2005) conducted a six-year longitudinal study (Special Education Elementary Longitudinal Study; SEELS) to examine student achievement of elementary and middle school students with disabilities. The study sample included more than 11,000 students in Grades 1–6 at the study onset.

[133] Wagner et al. (2006) examined data from the National Longitudinal Transition Study (NLTS2), a longitudinal study including over 11,000 13- to16-year-old students followed over multiple years, starting in the 2000/2001 school year. In this study, researchers examined the functional skills of students with disabilities.

[134] Test et al. (2009) explored different predictors of post-high school outcomes for students with disabilities using data from 22 studies and 26,480 students. Researchers found that students who had more independent living skills had greater academic (effect size = 0.27) and career-related outcomes (effect sizes = 0.42 to 0.53).

[135] Blackorby et al. (2005) conducted a six-year longitudinal study of elementary and middle school students with disabilities. The study sample included more than 11,000 Grade 1–6 students at the beginning of the study.

[136] Graves et al. (2005) used a video modeling technique to teach three students with moderate intellectual disabilities how to cook (e.g., macaroni and cheese, ramen). All students achieved 100% mastery and became more adept at cooking other foods once they mastered the concept on the first occasion.

[137] These statistics are reported in the *U.S. Department of Education's 31st Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act* (U.S. Department of Education, 2012). The report provides statistics related to providing appropriate, equitable, and effective education for students with special needs.

[138] These findings are from a six-year longitudinal study designed to examine student achievement outcomes of elementary and middle school students with disabilities. The study sample included more than 11,000 students in the first year (Blackorby et al., 2005).

[139] Milsom and Glanville (2010) used data from Wave 1 of the National Longitudinal Transition Study-2 (NLTS-2) to examine associations between social skills and academic grades for students with special needs. This study included 734 students with learning disabilities or emotional disturbances. Overall, greater cooperation with others predicted higher student grades (standardized beta = 0.11, effect size = 0.22). Additionally, the relationship between cooperation with others and student grades was mediated by trouble with teachers, whereby less trouble with teachers predicted higher grades (standardized beta = 0.07, effect size = 0.14).

[140] Test et al. (2009) explored different predictors of post-high school outcomes for students with disabilities. Overall, students with more social skills had greater academic (effect sizes = 0.47 to 0.53) and employment-related outcomes after high school.

[141] Gansle (2005) conducted a meta-analysis of twenty interventions designed to reduce student anger problems. Overall, there was a positive effect of anger interventions and programming on outcomes of students who participated compared to those who did not participate (effect size = 0.31). Immediately after the interventions, students who received the intervention had fewer behavioral problems and outward aggression (effect size = 0.54) and more positive social skills (effect size = 0.34) compared to students who did not receive the intervention. Similarly, at follow-up, students who received the intervention had fewer behavioral problems and outward aggression (effect size = 0.53) and more positive social skills (effect size = 0.99) compared to students who did not receive the intervention.

[142] Kam, Greenberg, and Kusché (2004) investigated the impact of the social skills training program, Promoting Alternative THinking Strategies (PATHS), on the social and psychological outcomes of students in special education classes. The PATHS program taught students different strategies for self-control, emotional awareness, and basic social-emotional problem solving. The three-year, longitudinal study included 133 students with special needs (i.e., learning disabilities, mild mental retardation, emotional and behavioral problems, physical disabilities) in grades 1–3. Using HLM analyses, researchers found that students who received the PATH intervention (compared to those students who did not receive the intervention), had greater decreases in externalizing behaviors (e.g., aggression, effect size = .18), smaller increases in internalizing behaviors (e.g., sadness, withdrawal; effect size = 0.22), greater decreases in depression (effect size = 0.49), greater awareness of negative feelings (effect size = 0.54), and greater usage of non-confrontational problem solving approaches ($F = 3.4$, $p < 0.0$).

[143] Richardson, Tolson, Huang, and Lee (2009) examined how participation in an elementary school character education program, Connecting with Others: Lessons for Teaching Social and Emotional Competence, related to outcomes. Twenty-five students in Grades 3 and 4 with special needs (i.e., learning disabilities, behavior disorders), who also had antisocial behavior before the intervention, participated in the treatment-only study. Teachers rated students who participated as having greater social skills (effect size = 5.26), higher problem solving skills (effect size = 3.38), better communication skills (effect size = 3.86), and greater empathy (effect size = 2.88).

[144] Emerson and Turnbull (2005) used interview data collected in the Mental Health of Children and Adolescents in Great Britain survey to understand the prevalence of drug abuse in adolescents (ages 11–15) with and without intellectual disabilities. Overall, students with intellectual disabilities had a higher likelihood of being a current smoker compared to students without intellectual disabilities (odds ratio = 1.85, effect size = 0.34); however, child poverty (odds ratio = 5.4, effect size = 0.93) was also a significant predictor of current smoking status for students with disabilities. There were no significant differences between students with and without disabilities in the reports of alcohol consumption at some point in their lives.

[145] Hogan, McLellan, and Bauman (2000) sought to understand the prevalence of different maladaptive behaviors in populations of students with disabilities compared to general student populations in Australia. The study sample

included 3,918 children and adolescents (ages 11–16) who completed surveys about their life experiences. Overall, students with disabilities had a greater likelihood of smoking cigarettes (odds ratio = 1.57, effect size = 0.25), drinking alcohol on a regular basis (odds ratio = 1.60, effect size = 0.26), and having been drunk more than four times (odds ratio = 2.0, effect size = 0.38).

[146] Hollar and Moore (2004) examined outcomes associated with substance abuse for a sample of 1,021 youth with various disabilities (i.e., learning, sensory, physical, emotional, health) who were followed longitudinally using data from the National Education Longitudinal Study 1988-2000 (NELS 88). Overall, cigarette, alcohol, marijuana, or cocaine use in the past month (compared to non-use) predicted fewer high school credits (effect sizes = -1.58 to -0.74), lower high school GPAs (effect sizes = -0.79 to -0.51), a younger age at first sexual interactions (effect sizes = -0.60 to -0.30), and a greater likelihood of school dropout (effect sizes = 0.13 to 0.27).

[147] Hogan, McLellan, and Bauman (2000) examined the prevalence of different maladaptive behaviors in Australian populations of 11- to 16-year-old students with disabilities compared to general student populations. Overall, students with disabilities had a greater likelihood of playing video games more than four hours a week (odds ratio = 1.42, effect size = 0.19), and playing computer games more than four hours per week (odds ratio = 1.57, effect size = 0.25) compared to their peers without disabilities. Students with disabilities also ate more fast food than their peers without disabilities (F[3,3815] = 36.7, p < .001, effect size = 0.20).

[148] Arnold-Reid et al. (1997) explored the benefits of teaching meal planning and basic nutrition to three high school-aged students with mental retardation. Researchers taught the students about the importance of good nutrition, went over components within the food pyramid, and helped students to plan and shop for healthy meals. At baseline, students were meeting nutritional guidelines for fruits, vegetables, vitamins, etc. approximately 38% to 90% of the time. At posttest (and also two months later), all three participants were meeting nutritional guidelines 100% of the time and appeared engaged in planning and eating healthy meals.

[149] Jones et al. (2012) conducted a meta-analysis of 11 studies to understand the risk of violence in children with disabilities (compared to children without disabilities). Overall, children (younger than 18) with disabilities had a higher likelihood (compared to children without disabilities) of physical violence (odds ratio = 3.56, effect size = 0.70), maltreatment (odds ratio = 3.68, effect size = 0.72), sexual abuse (odds ratio = 2.88, effect size = 0.58), emotional abuse (odds ratio = 4.36, effect size = 0.81), and neglect (odds ratio = 4.56, effect size = 0.84).

[150] Sullivan and Knutson (2000) examined abuse data from the school records of 50,278 students (ages 0 to 21) in Omaha, Nebraska schools. Overall, researchers found that the prevalence of abuse was 11% in the general population, compared to 31% of students who received some form of special education.

[151] Davis and Gidycz (2000) conducted a meta-analysis of 27 different studies of child sexual abuse prevention programs for children ages 3–13. Researchers found a large, positive average effect size for child abuse prevention programs (effect size = 1.07). The weighted mean effect size was 2.14 for pre-K, followed by 1.24 for ages 5–8, and 0.77 for ages 8 and older.

[152] Rispens et al. (1997) conducted a meta-analysis of 16 child sexual abuse prevention studies. Overall, sexual abuse prevention programs had a positive effect on student knowledge immediately following the intervention (effect size = 0.71) and at follow-up occasions (effect size = 0.62). Programs had stronger effects on student knowledge at younger ages (< 5.5 years, effect size = 0.97) compared to older ages (> 5.5 years, effect size = 0.67).

[153] Rose, Espelage, and Monda-Amaya (2009) explored how bullying, victimization, and aggression compared between students who were in special education versus general education. The study included 14,315 high school students (Grades 9–12) and 7,331 middle school (Grades 7–8) students who completed questionnaires about their experiences. Overall, middle school students who were in full-time special education classes had higher levels of bullying (effect size = 0.60), fighting (effect size = 0.49), and being a victim of bullying (effect size = 0.41). Similarly, high school students who were in full-time special education classes had higher levels of bullying (effect size = 0.40), fighting (effect size = 0.59), and being a victim of bullying (effect size = 0.37).

[154] Cappadocia, Weiss, and Pepler (2012) sought to understand the prevalence and risk factors of bullying in a sample of children with autism spectrum disorder (ASD). The study sample included 192 parents of children ages 5–21 who were diagnosed with ASD and in K–12 at the time of the study. Researchers examined risk factors by placing students into three groups: (a) no victimization in past four weeks (none), (b) victimized 1–3 times in past four weeks (low), and (c) victimized more than three times in past four weeks (high). Students who were victimized at high levels, compared to none and low levels, had greater anxiety issues (effect sizes = 0.79 [low], and 0.90[none]). They were also more hyperactive (effect sizes = 0.65 [low], 0.81 [none]), were more likely to injure themselves (effect sizes = 0.43 [low], 0.63 [none]), and were more sensitive (effect sizes = 0.63 [low], 0.81 [none]).

[155] Carter, Brock, and Trainor (2012) explored teachers' and parents' perceptions of the unique needs and strengths of 134 high school students with intellectual and developmental disabilities.

[156] Using data from the NLTS-2, Wagner et al. (2007) explored students with disabilities' perceptions of their individual and academic experiences.

[157] Newman et al. (2011) conducted a longitudinal study (National Longitudinal Transition Study-2; NTLS2) of 13- to 16-year-old students with disabilities and followed them for eight years.

[158] Using data from the National Longitudinal Transition Study-2 (NLTS-2), Carter, Austin, and Trainor (2012) explored what factors predicted post-high school employment for high school-age students with disabilities (n = 450). The following factors related to an increased likelihood of employment after high school: ability to advocate for themselves "well" or "very well" (odds ratio = 3.58, effect size = 0.70; compared to "not at all") and received instruction in how to look for jobs (odds ratio = 1.98, effect size = 0.38) compared to no instruction in how to look for jobs.

[159] Test et al. (2009) explored different predictors of post-high school outcomes for students with disabilities using data from 22 studies and 26,480 students. Researchers identified multiple categories relating to post-high school academic, career, and independent living outcomes. For example, students who left high school with a high level of career awareness had more positive academic and career outcomes (effect sizes = 0.23 to 0.27). Similarly, students who completed more occupational and career-related courses in high school had greater academic outcomes (effect sizes = 0.47 to 0.53) and more positive career outcomes (effect size = 0.09). Finally, students who participated in transition planning services in high school (compared to no participation) had greater academic (effect size = 0.45) and career-related outcomes (effect size = 0.46) after high school.

[160] Cobb and Alwell (2009) conducted a review and meta-analysis of the research on transition planning and interventions for students with disabilities. Overall, planning and interventions for students with disabilities improved students' transition-related outcomes. Student development programs primarily teach self-determination, work skills, and other related skills, and past studies find these to be effective (effect sizes = 0.67 to 0.94). Cobb and Alwell (2009) also note that studies suggest that students need transition supports to acquire and keep jobs.

[161] Wehmeyer and colleagues (2003) explored how students' self-determination abilities predicted student success after high school. Students completed a self-determination survey measure and researchers categorized students as high or low in self-determination based on their scores. Self-determination consisted of autonomy, self-regulation, perceived control, and self-realization (e.g., understanding of personal strengths and weaknesses). Using chi-square analyses, researchers found that after one year post-high school, students higher in self-determination were more likely to report maintaining a bank account, holding a job, and working full or part-time. Furthermore, after three years, those students higher in self-determination (compared to lower) were more likely to report independent living, receiving job training, or holding a job since high school.

[162] Test et al. (2009) examined several predictors of post-high school outcomes for students with disabilities. Overall, students with greater self-determination skills had more positive academic (effect size = 0.21) and employment outcomes (effect size = 0.72).

[163] Algozzine et al. (2001) conducted a meta-analysis of the special education literature to understand how self-determination interventions affected students with disabilities. Researchers defined self-determination as goal

choice, expression, planning, evaluation, and modification, and looked at interventions largely focusing on decision-making and self-advocacy. The meta-analysis located 21 studies (largely of individuals with mental retardation and learning disabilities) including: 9 group studies (77% included adolescents) and 13 single-subject designs (56% included adults). The average effect size was 1.38 for group studies. For single-subject designs, the median percentage of nonoverlapping data (PND) between baseline and treatment was 95%. Overall, Algozzine et al. (2001) suggest that interventions emphasizing decision-making and self-advocacy can be beneficial for special education students.

[164] Agran and colleagues (2002) explored the success of a goal setting/problem solving intervention in a sample of four middle school students with disabilities. Teachers asked students about a problem they wanted to solve (e.g., touching less, talking more during class) and gave students basic strategies for resolving problems on a consistent basis (e.g., asking themselves how they can fix the problem and looking to see if their actions resolved the problem). All four students met a criterion of 100% goal attainment and successfully learned from the intervention. Students felt positively about the intervention and teachers also saw benefits from their students' participation (e.g., greater engagement, more positive classroom behavior).

[165] Cass et al. (2003) examined how the introduction of manipulatives into math lessons could support students with learning disabilities in understanding concepts related to perimeter and area. The study sample included three junior high school students with learning disabilities. Students learned via modeling, guided practice with manipulatives, and independent manipulative practice. All three students mastered the math concepts with the support of manipulatives, and student feedback was positive. One student commented that textbooks were "flat" but manipulatives "made problems come alive." (p. 117).

[166] Styers and Baird-Wilkerson (2011) conducted an RCT of Pearson's *focusMATH* program, examining the impact of providing additional hands-on math instruction for students performing at or below the 30th percentile on a math assessment, KeyMath3. The study included 357 students, randomly assigned to participate in *focusMATH* (treatment) or to receive no intervention (control) during the 2010-2011 school year, and 22 facilitators. Overall, treatment students had significant math learning gains at midyear (effect size = 0.65) and end-of-year (effect size = 1.12). Additionally, there was a positive impact of program participation for treatment students. Students who participated in the treatment program had higher math scores at mid-year (effect size = 0.09) and end-of-year (effect size = 0.24) compared to control students, suggesting the importance of providing additional hands-on instruction to students with learning deficits in math.

[167] McCarthy (2005) conducted a study with 18 middle school students diagnosed with emotional disabilities, who participated in the study in self-contained classrooms, to understand differences in hands-on compared to text-based learning. Students received instruction on "Matter" for 45 minutes a day, three days a week for eight weeks. In the text-based condition, students had a 5- to 10-minute review, 10 minutes of teacher modeling, 15–20 minutes for reading the text and discussing, and 10 minutes of practice based on the previously read text (e.g., answering questions independently). In the hands-on condition, students received 5–10 minutes of review, followed by 30–40 minutes of hands-on active experimentation in small groups with teachers providing support, and 5–10 minutes of review of concepts and experiment findings. There were no significant differences in student scores on a multiple-choice test. However, there were significant differences between groups on a short-answer and hands-on test. Specifically, students who learned in the hands-on setting (compared to the text-based) had higher achievement scores on the short answer (effect size = 4.31) and hands-on tests at posttest (effect size = 2.26).

[168] Scruggs et al. (1993) examined the effects of a textbook-based compared to a hands-on approach to learning science content with a sample of 26 junior high students with learning disabilities. Students had the opportunity to learn science concepts in both conditions, with the ordering counterbalanced across four classrooms. In the textbook condition, students had 10 minutes of review, 30–35 minutes of teacher presentation and text reading, and 10–15 minutes of worksheet review. In the active learning condition, students had 5–10 minutes of review, 35–40 minutes of hands-on activities/lessons in small groups, and 5–10 minutes of whole class review of findings. Overall, students understood more of the science content when taught in hands-on compared to text-based approaches at the immediate ($t[25] = 2.19$, $p = .04$, effect size = 0.89) and delayed posttests ($t[22] = 2.28$, $p = .03$, effect size = 1.00). Additionally, 96% of students said they preferred the hands-on compared to text-based learning and 96% indicated they would like to do the hands-on learning again.

[169] Cameron and Pierce (1994) conducted a meta-analysis of 96 studies to understand the relationship between external rewards and intrinsic motivation. Cameron and Pierce (1994) reported that the *type* of reward matters. When students received tangible rewards (e.g., money, stickers), they spent less of their free time on activities (effect size = -0.21) compared to control, but were not different from control in their attitudes toward activities. Furthermore, if students received unexpected tangible rewards (e.g., receiving something after doing an activity), they showed no differences in free time use or attitudes compared to control. Rewards appeared the most problematic when treatment students received rewards contingent on doing some task (effect size = -0.23) compared to control students. There were no differences between groups when rewards were contingent on students achieving a certain level of performance.

[170] Eisenberger, Pierce, and Cameron (1999) conducted a follow-up meta-analysis to Cameron and Pierce (1994) with new categories for different types of rewards. Overall, when students expected rewards for performance, there was no difference from control groups in how students performed on a task during their free time. Explicit rewards had a positive effect on students' behavior on a task during their free time (effect size = 0.13) and student interest in future activities (effect size = 0.16), compared to students who did not receive rewards. Furthermore, when students received rewards for exceeding some performance benchmark, there was no difference from control students in how they performed on a subsequent task in their free time; but students who received rewards had higher interest compared to control groups (effect size = 0.26). Additionally, when students received rewards for outperforming others, students spent more of their free time on subsequent tasks compared to control groups (effect size = 0.23) and had higher interest on subsequent tasks compared to control groups (effect size = 0.22).

[171] Deci, Koestner, and Ryan (1999) conducted a meta-analysis of 128 studies examining the effects of rewards on intrinsic motivation. Overall, they found that students who received rewards spent less time on tasks in their free time (effect size = -0.24), but had no differences in self-reported interest compared to control students. However, students who received verbal praise spent more on tasks in their free time (effect size = 0.33) and had greater self-reported interest (effect size = 0.31). Furthermore, if students received unexpected rewards, their time spent on future tasks and interest in activities was no different than controls. Additionally, if students received rewards for simply completing a task (i.e., no expectations for level of performance or engagement), there were no significant differences from controls in how they spent their free time, but these students had higher self-reported interest compared to controls. Finally, students who received rewards that were dependent on their level of performance reported motivation levels no different from controls, but their time spent on future tasks decreased (effect size = -0.28).

[172] Despite the argument over rewards, Hattie (2009) reports that the literature on the use of rewards has small effect sizes, suggesting that arguments for or against rewards hold little weight.

[173] Hattie (2009) synthesized 23 different meta-analyses and 2,050 effect sizes to understand the impacts of feedback on achievement. Overall, feedback has a positive effect on achievement (effect size = 0.73). Hattie (2009) notes that feedback is more effective when it is reinforcing or relates to specific learning goals.

[174] Kluger and DeNisi (1996) conducted a meta-analysis of 131 studies on the effects of feedback. Overall, Kluger and DeNisi (1996) noted that feedback can be helpful (effect size = 0.41) and suggest that effective feedback should be task-specific and not generic feedback or personal praise.

[175] James et al. (1996) surveyed and interviewed 369 middle and high school adolescents to determine the extent of drug use.

[176] The Substance Abuse and Mental Health Services Administration (SAMHSA) conducts a survey of approximately 67,500 individuals ages 12 and older yearly to examine the prevalence of drug use in America.

[177] This National Institute on Drug Abuse (2014) reports data from the 2013 Monitoring the Future survey of drug use, conducted by the University of Michigan. This survey of alcohol, drug, and cigarette users included data from 41,675 students in 389 schools.

[178] Johnston et al. (2013) reported survey data collected from the 2012 Monitoring the Future survey.

[179] McCrystal and Percy (2010) examined different factors associated with ecstasy use in a sample of 14- to 16-year-old adolescents followed longitudinally for three years through the Belfast Youth Development Survey (BYDS). Using logistic regression, researchers found two positive and significant predictors of ecstasy use over the past three years: living with a single parent (odds ratio = 1.53, effect size = 0.23) and having more behavior problems at school (odds ratio = 1.47, effect size = 0.21).

[180] Schwinn and Schinke (2014) explored how peer and parent factors related to adolescent alcohol use. The study included 400 adolescents (average age = 17.3 years) who participated in an alcohol abuse prevention program and completed surveys on their alcohol use, and surveys on peer and parent influences. Using hierarchical linear modeling, researchers found that students with peers who used alcohol were more likely to use alcohol themselves ($p < .001$), to binge drink ($p < .001$), and to intend to drink themselves ($p < .001$). Furthermore, if peers offered students the opportunity to drink, they were more likely to use alcohol themselves ($p < .001$), to binge drink ($p < .001$), to experience various outcomes related to drinking alcohol (e.g., getting arrested, fighting, passing out, harming themselves) ($p < .001$), and to have drinking intentions ($p < .001$).

[181] Scull et al. (2010) examined parent and peer influences on adolescent substance abuse using two samples of middle school students (grades 6–8; $n = 729$ students total). Using regression models, researchers found that if students experienced higher levels of peer pressure to use drugs, they were more likely to report future drug use intentions ($p < .01$).

[182] Monahan et al. (2011) examined peer and individual predictors of adolescent drug use within communities. The sample included students in grades 6, 8, and 10 who were surveyed in 2000 ($n = 20,421$ students) and 2002 ($n = 24,453$) in 41 communities using the Communities That Care Youth Survey. Researchers aggregated all data to the community level and found that for sixth grade students, all of the following community-level risk factors predicted a greater likelihood of monthly or lifetime alcohol, cigarette, or marijuana use: more positive community attitudes toward antisocial behavior (odds ratios = 1.24–1.27, effect sizes = 0.12–0.14), more positive community attitudes toward drugs (odds ratios = 1.23–1.31, effect sizes = 0.11–0.15), and greater use of drugs by peers in the community (odds ratios = 1.20–1.35, effect sizes = 0.10–0.17).

[183] Peleg-Oren et al. (2009) examined Florida Youth Substance Abuse Survey and Florida Youth Risk Behavior Survey data for 11th and 12th grade students ($n = 12,352$) to explore associations between early alcohol use and outcomes. The study sample included students classified as (a) very early drinkers (tried alcohol before age 13), (b) early drinkers (tried alcohol after age 13), and (c) non-drinkers (students who had not tried alcohol). Students who were very early drinkers (compared to non-drinkers) were more likely to have lower school grades (odds ratios = 2.03, 3.22; effect sizes = 0.39, 0.65), have carried a gun in the past 30 days (odds ratios = 5.56, 29.41; effect sizes = 0.95, 1.86), have carried a weapon at school in the past 30 days (odds ratios = 5.13, 15.63; effect sizes = 0.90, 1.52), and to have used marijuana in the past 30 days (odds ratios = 20.83, 21.74; effect sizes = 1.67, 1.70). Similarly, very early drinkers (compared to early drinkers) had a greater likelihood of lower school grades (odds ratios = 1.73, 2.29; effect sizes = 0.30, 0.46), carrying a gun in the past 30 days (odds ratios = 2.48, 5.65; effect sizes = 0.51, 0.95), carrying a weapon at school in the past 30 days (odds ratios = 2.56, 5.99; effect sizes = 0.52, 0.99), and using marijuana in the past 30 days (odds ratios = 1.26, 1.69; effect sizes = 0.13, 0.29). As a result, researchers emphasized the importance of targeting interventions toward elementary school students.

[184] The Maryland State Department of Education (2008) surveyed 33,057 public school students in grades 6, 8, 10, and 12 in 2007 to assess substance use and potential protective factors.

[185] Robertson et al. (2003) synthesized the research on substance abuse prevention in a National Institute on Drug Abuse guide.

[186] This foundational research paper is not an efficacy study of Learning for Life's K-6 Substance Abuse Prevention Program. Researchers did not investigate the impact of Learning for Life's K-6 Substance Abuse Prevention Program in any studies cited in this report.

[187] Carlson (1994) conducted surveys with 2,791 students in grades 4–12 to understand their perceptions of substance use prevention programming and regulations in their schools. Overall, students in elementary school were most positive about substance use prevention programming.

[188] Hopfer and colleagues (2010) reviewed the effectiveness of substance abuse prevention programs for students in grades K–6 by examining results from 30 evaluations. Approximately 50% of programs taught students basic information and knowledge about drug use and 50% taught peer refusal skills. Additionally, 71% provided some instruction in personal development components, such as self-esteem and self-efficacy. Furthermore, 38% of programs included schools and family/parents in the intervention, and in 75% of programs, teachers taught the lessons. Overall, programs had positive impacts on increasing anti-drug attitudes (8/8 programs measuring this component), increasing peer resistance skills (5/7 programs measuring this component), increasing positive norms against drug use (2/2 programs measuring this component), increasing substance use knowledge (6/7 programs measuring this component), decreasing intentions to use drugs (3/5 programs measuring this component), and decreasing actual drug use (15/27 programs measuring this component). Thus, substance abuse prevention education in elementary school can positively impact student outcomes in multiple areas.

[189] Tobler (2000) conducted a meta-analysis of 207 substance abuse prevention programs, with the majority of programs covering grades 6 through 12. Overall, non-interactive (e.g., lecture-based programs) had a non-significant effect (weighted mean effect size = 0.05) and interactive programs (e.g., peer-peer interaction, small group discussions) had a positive and significant effect on student outcomes (effect size = 0.15).

[190] Tobler et al. (1999) conducted a meta-analysis of 30 studies of substance abuse prevention programs for students in Grades 6 through 12, and the associated impacts on marijuana use. Overall, programs that were interactive in nature (e.g., providing time for small group discussion, peer interaction) compared to non-interactive (e.g., lecture) were more effective (interactive effect size = 0.17; non-interactive effect size = -0.05). Interactive programs also had a positive impact on attitudes against substance use (effect size = 0.27), decreases in marijuana use (effect size = 0.17), decreases in tobacco use (effect size = 0.12), and decreases in alcohol use (effect size = 0.18).

[191] Bell et al. (2005) conducted an evaluation of the Protecting You/Protecting Me alcohol abuse prevention program in four elementary schools. The quasi-experimental study included four schools (two treatment, two comparison) assessed over four years. The final study sample included 722 fourth- and fifth-grade students with different levels of program exposure (i.e., 0 years [comparison students] vs. 1–4 years [treatment students]). Using regression models, students who participated in the program for at least one year (treatment) had higher scores on multiple outcomes compared to comparison students, including: greater knowledge regarding the harm alcohol can do (p = .00), more negative attitudes toward underage drinking (p = .02), greater understanding of vehicle safety skills when in car with a driver who had been drinking (p = .00), and greater understanding of the legal age for drinking alcohol (p = .00). Additionally, in a separate series of regression models, greater exposure to the program predicted more positive outcomes including, greater knowledge regarding the harm associated with alcohol (p = .00), more negative attitudes toward underage drinking (p = .03), greater understanding of vehicle safety skills when in car with a driver who had been drinking (p = .00), and greater understanding of the legal age for drinking alcohol (p = .00).

[192] Bell et al. (2007) examined the impact of early elementary student participation (Grades 1–2) in an alcohol use prevention program, Protecting You/Protecting Me, on student knowledge and awareness. The program is progressive and developmentally-based, with first-through fifth-grade lessons becoming more complex and building on earlier lessons from year to year. Overall, students in the treatment condition (received the Protecting You/Protecting Me program; n = 385) had greater knowledge than comparison students (did not receive an alcohol use prevention program; n = 357) on some program aspects. Specifically, treatment students had greater knowledge of the impact of the media (odds ratio = 2.74, effect size = 0.56), greater knowledge of car safety when forced to be in a car with a drunk driver (odds ratios = 1.48–2.52; effect sizes = 0.22–0.51), and greater knowledge that their brain (vs. heart) controls their body (odds ratio = 1.54, effect size = 0.24).

[193] Bohman et al. (2004) evaluated the effectiveness of the Protecting You/Protecting Me alcohol abuse prevention program in third through fifth grades. The study included four elementary schools, with one Grade 1-5 classroom assigned to the treatment condition (i.e., received the Protecting You/Protecting Me program) and one assigned to the comparison condition (i.e., received no alcohol abuse prevention program). The analysis sample included 128 treatment students and 131 comparison students in Grades 3-5 with pretest and posttest data. Overall, treatment students had greater knowledge of vehicle safety guidelines when in the car with a driver who had been drinking (effect size = 0.68), lesser intentions to ride in a car with a driver who had been drinking (effect size = 0.39), and a better understanding of ages when the brain is more fully developed (effect size = 0.48) compared to students in the comparison group. There were no significant differences between groups for questions related to the appropriateness of getting in a car with someone who has consumed alcohol.

[194] Botvin et al. (2003) examined the impact of a substance abuse prevention program for students in Grades 3–6. Researchers randomly assigned schools to use the prevention program (treatment condition) or to not use the substance abuse prevention program (control condition). The study sample included 1,090 studies in Grades 3–6. Students in the treatment condition participated in eight 30- to 45-minute lessons, with opportunities to participate in up to 24 different lessons over three successive years (Grades 3–5). Researchers assessed students before program implementation and after one year of program participation. Using ANCOVA analyses, researchers found that students in the treatment condition smoked less in the past year ($F[1,1059] = 3.15$; effect size = 0.11), had stronger attitudes against drinking ($F[1,1058] = 2.93$; effect size = 0.11), had greater knowledge about substance use ($F[1,736] = 3.47$; effect size = 0.14), believed smoking and alcohol use was not normal among peers ($F[1,1046] = 4.31$, effect size = 0.13; $F[1,1056] = 12.84$, effect size = 0.22), had higher self-esteem ($F[1,1046] = 6.21$; effect size = 0.15), and also believed their friends were more opposed to drinking ($F[1,1055] = 3.82$; effect size = 0.12), compared to students in the control condition.

[195] Shope et al. (1992) examined effects of late elementary (Grades 5–6) participation in an alcohol use prevention program, Alcohol Misuse Perception Study (AMPS). The study included 5,356 fifth and sixth grade students who, (a) received the program for one year (a group of fifth graders and a group of sixth graders), (b) received the program for two years (a group of fifth graders), or (c) received no alcohol use prevention program (a group of fifth graders and a group of sixth graders). There was a significant impact of participating in the treatment group for sixth grade students with one year of program participation (compared to comparison students) on the following outcomes: greater curriculum knowledge (effect sizes: immediate posttest after program participation ended [0.53], one-year delayed posttest [0.32], two-year delayed posttest [0.27]) and greater knowledge surrounding effects of peer pressure (effect sizes: immediate posttest after program participation ended [0.61], one-year delayed posttest [0.43], two-year delayed posttest [0.37]).

[196] Werch et al. (1991) examined the impact of a substance use prevention program, Keep a Clear Mind (KACM) on student outcomes. The 4-week, 4-lesson program includes classroom instruction in substance abuse prevention and five take-home lessons for at-home discussions and activities with parents. The study sample included 511 students in Grades 4–6 whose classrooms were randomly assigned to use KACM (treatment condition) or to be on a waiting list for the program (comparison condition). Students in the treatment group believed their peers used several substances to a lesser extent compared to comparison students including: alcohol ($t = -3.77$, df = 432; effect size = -0.36), tobacco ($t = -1.91$, df = 431; effect size = -0.18), and marijuana ($t = -2.59$, df = 433; effect size = -0.26). Treatment students also reported less peer pressure to try cigarettes compared to comparison students ($t = -2.59$, df = 412.5; effect size = -0.26). However, there were no significant differences between groups in their intent to use alcohol, cigarettes, tobacco, or marijuana in the future.

[197] Sklad et al. (2012) conducted a meta-analysis of 75 studies of social/emotional/behavioral programs in schools. In each program, educators taught at least one social-emotional skill in schools, and programs supported the entire school (i.e., not just a specific group of at-risk students). There were significant decreases in substance use for students participating in social-emotional programs (effect size = -0.09).

[198] Snyder et al. (2013) examined the impact of the Positive Action whole-school, social-emotional and character education program) on elementary student outcomes in a matched pair, cluster RCT using 20 schools. The whole-school program addressing self-concept, social-emotional strategies and social skills, honesty, and striving for continuous improvement. The expected rates of reported substance abuse were 62% lower and reports of violence were 76% lower in treatment compared to control schools.

[199] Lewis et al. (2012) investigated the impact of the Positive Action (social-emotional program) on student outcomes in elementary through middle school. The program does not cover substance use, but addresses other aspects of positive social-emotional development. The study included 14 schools in matched pairs who either implemented or did not implement the Positive Action program in a high free/reduced-lunch setting. Researchers followed students as they progressed from Grades 3 through 8. Students in the treatment schools were less likely than those in the control schools to have used illicit substances (effect size = -0.27), to have used cigarettes (effect size = -0.21), had alcohol (effect size = -0.35), been drunk (effect size = -0.20), or used marijuana (effect size = -0.23).

[200] Monahan et al. (2011) examined peer and individual predictors of adolescent drug use within communities. The sample included students in Grades 6, 8, and 10 who were surveyed in 2000 ($n = 20,421$ students) and 2002 ($n = 24,453$) in 41 communities using the Communities That Care Youth Survey. For sixth grade students, the following protective community-level factors predicted a lower likelihood of monthly or lifetime drug use: high social skills of

students in the community (odds ratios = 0.78–0.80, effect sizes = -0.14 to -0.12) and a belief in the moral order of society (e.g., societal norms, expectations; odds ratios = 0.76–0.83, effect sizes = -0.15 to -0.10).

[201] The Maryland State Department of Education (2008) surveyed 33,057 public school students in Grades 6, 8, 10, and 12 in 2007 to assess substance use and potential protective factors.

[202] Schwinn and Schinke (2014) explored how peer and parent factors related to adolescent alcohol use. The study included 400 adolescents (average age = 17.3 years) who participated in an alcohol abuse prevention program and completed surveys on their alcohol use, in addition to peer and parent influences. Using hierarchical linear modeling, researchers found that if parents had rules against alcohol use, students were less likely to use alcohol ($p < .01$), less likely to binge drink ($p < .05$), and less likely to intend to drink ($p < .01$). Similarly, if students believed that they possessed higher levels of family support and closeness, they were less likely to drink ($p < .01$).

[203] Clark et al. (2012) examined how higher levels of parental monitoring of students in alternative high schools predicted substance abuse at two time points. The study included 1,423 students who lived with a parent or stepparent at the beginning of the study. Using HLM analyses, researchers found that higher levels of parental monitoring (e.g., parents monitor student activities, parents have clear rules, parents know where their children are located), predicted lower levels of alcohol use ($r = -.07$, effect size = 0.14), lower levels of getting drunk ($r = -0.09$ to -0.08; effect sizes = -0.18 to -0.16), and lower levels of marijuana use ($r = -.06$, effect size = 0.12). Furthermore, high parental monitoring related to a lower likelihood of high school-age students using uppers (odds ratio = 0.54; effect size = -0.34), downers (odds ratio = 0.63; effect size = -0.25), cocaine (odds ratios = 0.49 to 0.60; effect sizes = -0.39 to -0.28), PCP (odds ratio = 0.30; effect size = -0.66), LSD (odds ratio = 0.39; effect size = -0.52), ecstasy (odds ratio = 0.56; effect size = -0.32), and prescription drugs (odds ratios = 0.52 to 0.67; effect sizes = -0.36 to -0.22).

[204] Scull et al. (2010) examined parent and peer influences on adolescent substance abuse using two samples of middle school students (Grades 6–8; $n = 729$ students total). Using regression models, researchers found that greater parental pressure to avoid substances related to lower levels of current use ($p < .001$) and intentions to use substances in the future ($p < .01$).

[205] Using survey data from the Dutch Health Behavior in School-Aged Children study, de Looze et al. (2012) investigated associations between different parent/peer factors and student deviant behaviors. The sample included 5,422 Dutch adolescents (ages 12–16). Parents who were more involved (e.g., students believe parents know where they are located, how they spend free time, etc.), had students who were less likely to use substances and to have early sexual experiences (standardized beta = -0.24, effect size = -0.49). Furthermore, parents who were more informed had students who spent less time with their peers (e.g., after school, in the evenings) (standardized beta = -0.26, effect size = -0.54); and greater time spent with peers related to higher levels of substance use and early sexual experiences (standardized beta = 0.52, effect size = 1.21).

[206] Karki et al. (2012) conducted a review of 27 different substance abuse prevention programs for students under age 18.

[207] Werch et al. (1991) examined the impact of a substance use prevention program, Keep a Clear Mind (KACM) on student outcomes. The 4-week, 4-lesson program includes classroom instruction in drug abuse prevention and five take-home lessons for at-home discussions and activities with parents. The study sample included 511 students (Grades 4–6) in classrooms randomly assigned to use KACM (treatment condition) or to be on a waiting list for the program (comparison condition). Mothers in the treatment condition reported greater communication with their children about refusing drugs ($t = 7.91$, df = 289; effect size = 0.93), more discussions about drug avoidance/refusal ($t = 4.31$, df = 287; effect size = 0.51); and more discussions with children about resisting peer pressure to drink alcohol ($t = 5.99$, df = 289; effect size = 0.70), use tobacco ($t = 4.45$, df = 289; effect size = 0.52), and try marijuana ($t = 5.29$, df = 271; effect size = 0.64) compared to comparison group mothers. Furthermore, treatment group fathers (compared to comparison group fathers) reported more communications with their child about refusing peer pressure for alcohol ($t = 2.25$, df = 190; effect size = 0.33) and tobacco ($t = 2.77$, df = 190; effect size = 0.40); and more motivation to support children in substance abuse prevention ($t = 2.02$, df = 185; effect size = 0.30).

[208] McBride (2003) reviewed the literature on effective substance abuse prevention strategies by examining results from 11 studies.

[209] Tobler et al. (1999) conducted a meta-analysis of 30 studies of substance abuse prevention programs (Grades 6–

12) and the associated impacts on marijuana use. Overall, Tobler et al. (1999) found interactive programs to be more effective (interactive effect size = 0.17; non-interactive effect size = -0.05). Interactive programs also had a positive impact on attitudes against substance abuse (effect size = 0.27), decreases in marijuana use (effect size = 0.17), decreases in tobacco use (effect size = 0.12), and decreases in alcohol use (effect size = 0.18).

[210] Tobler (2000) conducted a meta-analysis of 207 substance abuse prevention programs (majority in Grades 6–12). Overall, non-interactive programs had a non-significant effect (weighted mean effect size = 0.05), whereas interactive programs had a positive and significant effect on student outcomes (effect size = 0.15).

[211] Sobeck et al. (2006) conducted a five-year study of a substance abuse prevention program in the sixth and seventh grades. They found no impacts of program participation and cited several implementation-related issues as potential reasons for the lack of findings. Researchers noted that involvement of various stakeholders (e.g., principals) varied and stakeholder involvement was not reiterated across multiple years, suggesting a lack of support over time by primary stakeholders. Sobeck et al. (2006) also noted the lack of a supportive school climate, reporting that schools were tasked with many other initiatives, specifically related to high-stakes testing, and substance abuse prevention/health promotion took a back burner. There were also low levels of program adherence, with teachers skipping, deleting, and/or combining lessons.

[212] The study included 342 educators who reported using an evidence-based substance abuse prevention curriculum in their middle schools during the 2004–05 year.

[213] Shope et al. (1992) examined effects of late elementary (Grades 5-6) participation in an alcohol use prevention program, Alcohol Misuse Perception Study (AMPS). The study included 5,356 fifth- and sixth-grade students who (a) received the program for one year (a group of fifth graders and a group of sixth graders), (b) received the program for two years (a group of fifth graders), or (c) received no alcohol use prevention program (a group of fifth graders and a group of sixth graders). Researchers examined student immediate and delayed outcomes. Fifth-grade students who participated in an additional year of the program (i.e., fifth grade and sixth grade participation) had stronger outcomes than comparison students including: greater curriculum knowledge (effect size: posttest after first year of program [0.64], immediate posttest after program participation ended [0.75], one year after program participation ended [0.57]) and greater knowledge surrounding effects of peer pressure (effect size: posttest after first year of program [0.80], immediate posttest after program participation ended [0.71], one year after program participation ended [0.59]). When comparing effect sizes across immediate posttests and one-year delayed posttests, treatment students saw stronger effects of program participation when participating in the program for two years compared to one year.

[214] Ringwalt et al. (2009) investigated outcomes associated with All Stars, a substance abuse prevention program, in a population of seventh-grade students. The study included 45 middle schools and 2,448 students who completed surveys about their perceptions and experiences. Using regression analyses, researchers found that students who showed greater program engagement and interest also had more positive normative beliefs against substance use ($p < .05$), greater commitments to avoid alcohol ($p < .001$), greater beliefs that substance use would negatively impact their lifestyle ($p < .001$), higher levels of positive connections and bonding to school ($p < .001$), and higher levels of positive parental interactions and responsiveness ($p < .001$).

[215] This study investigated which factors predict traditional and cyber-bullying in a sample of 2,326 Italian adolescents. Overall, isolation and rejection from peers related to higher incidences of victimization for males and females (Effect Sizes = 0.24 to 0.52) (Brighi et al., 2012).

[216] This study included 7,290 high school adolescents in Canada and examined risk factors for being a bully, victim, or victim-bully. Overall, victims and victim-bullies had more difficulties in peer friendships compared to bullies and other peers (Partial Eta Squared = .02) (Marini, Dane, Bosacki, & YLC-CURA, 2006).

[217] In a study with 8,248 students in Grades 3–5 from Finland, researchers investigated whether peer interventions can moderate the relationship between victimization risk factors (i.e., peer rejection, social anxiety) and being victimized. Using HLM analyses, the researchers found that bullies only needed to be reinforced by peers to a small extent in order to increase the risk for socially rejected or anxious students to be victimized ($b = .019$, $z = 12.28$, $p < .001$) (Kärnä, Voeten, Poskiparta, & Samivalli, 2010).

[218] In their meta-analysis of 89 high-quality studies of anti-bullying programs, Ttofi and Farrington (2011) found that there was more victimization in control compared to treatment groups when treatment students had bullying awareness building exercises or training (Odds Ratio = 1.13).

[219] In a meta-analysis of 41 bullying intervention studies, Farrington and Ttofi (2009) used weighted regression analyses and found that when treatment groups watched anti-bullying videos there were associated decreases in victimization compared to control groups ($B = 0.14$).

[220] In this meta-analysis of 59 high-quality studies on anti-bullying programs, researchers found that when treatment students watched videos to build student awareness of bullying they had lower rates of victimization compared to control students who did not watch bullying awareness videos (Odds Ratio = 1.47) (Ttofi & Farrington, 2009)

[221] Ttofi and Farrington (2011) found that when treatment students watched videos to build student bullying awareness, they had lower rates of victimization compared to control students (Odds Ratio = 1.38).

[222] In a study with 99 10- to 13-year-old children, students with higher quality friendships were less likely to be victims of bullying ($\beta = -0.29$) (Bollmer et al., 2005).

[223]Using HLM analyses with a sample of 18,222 French students and 701 teachers, Richard, Schneider, and Mallet (2012) found that the following were associated with lower levels of bullying: greater acceptance by peers (Relative Effect Size= -0.08 for physical bullying, -0.17 for verbal bullying) and stronger friendships (Relative Effect Size = -0.02 for physical bullying, -0.03 for verbal bullying).

[224] In a study with 7,508 adolescents (Grades 6–10) from the Healthy Behavior in School-Aged Children study, researchers conducted logistic regressions to examine what protective factors predict different types of bullying. Having more friends was also associated with a lower likelihood of being a victim (Odds Ratios = 0.78 (physical bullying), 0.69 (verbal bullying), 0.72 (relational aggression) (Wang et al., 2009).

[225] Wang et al. (2009) used logistic regressions to determine that having more friends was related to a greater likelihood of being a bully (Odds Ratio =1.64 [physical bully], 1.31 [verbal bully], 1.49 [relational aggression]).

[226] In a study with 99 10- to 13-year old children, there was an externalizing-by-friendship quality interaction ($\beta = -0.18$). For those high externalizing students, if they had a higher-quality friend, they were less likely to be a bully. For low externalizing students, friendship quality did not change bullying practices. Additionally, children with higher-quality friendships were less likely to bully than those with lower-quality friendships ($\beta = -0.33$) (Bollmer, et al., 2005).

[227] Pozzoli et al., (2012) conducted a study with 797 elementary school and 1,028 Italian middle school students who completed a survey about bystander behavior in response to bullying. HLM analyses revealed that when peers have pro-victim attitudes, they are more likely to intervene when bullying occurs $C = .30$, $t(1791) = 5.49$, $p < .001$.

[228] In a bullying study with 400 early adolescents from South Australia, Rigby (2005) used regression analyses to find that being pro-victim is associated with less bullying behaviors ($B = -0.30$).

[229] Rigby and Johnson (2004) conducted a study on high school peer bystander intervention in witnessing sexual harassment. Overall, regression analyses revealed that pro-victim attitudes were a significant

predictor of whether or not high school students would intervene (*B* = 0.22) or tell a teacher (*B* = 0.28) when witnessing sexual harassment.

[230] Rigby and Johnson (2006) conducted a study on peer bystander intervention with 400 Australian adolescents. Regression analyses revealed that having a pro-victim attitude was related to a greater likelihood of helping victims (*B* = 0.20).

[231] Sandstrom and Bartini (2010) conducted a study with 91 U.S. eighth graders to examine how peer perceptions of class norms predicted bystander behavior. Eighth grade students who had more discrepant self-other beliefs also were more likely to be bystanders in bullying situations (β = 0.28).

[232] Hahn, et al. (2007) conducted a meta-analysis of 53 studies to examine successful components of violence prevention programs. When violence prevention programs taught social skills to students, there was a 19% decrease in violent behavior.

[233] Wilson et al. (2003) conducted a meta-analysis of 221 studies of school violence prevention programs and found that social competence interventions were associated with decreases in violent behavior (Effect Sizes = 0.15–0.34).

[234] Barchia and Bussey (2011) collected data from a sample of 1,167 students in Grades 7–10 in Australia. The study examined factors predictive of bystander behavior. Using regression analyses, higher levels of empathy predicted self-efficacy for defending in girls only (β = 0.15).

[235] Cappadocia et al. (2012) conducted a study of bystander intervention using a sample of 108 eight- to sixteen-year old students from Canada. Logistic regression analyses revealed that boys with high levels of empathy were 17 times more likely to intervene than boys with low empathy.

[236] Nickerson et al. (2008) conducted a bystander intervention study with a sample of 105 middle school students (Grades 6-8). Overall, peers with higher levels of empathy were more likely to intervene (versus remaining an outsider) during middle school bullying episodes (Odds Ratio = 1.89).

[237] Topcu and Erdu-Baker (2012) conducted a survey-based study with 795 Turkish students (ages 13–18) on bullying behavior. Researchers found that empathy mediated the relationship between gender and traditional bullying behaviors (*z* = 2.02, *p* < .01).

[238] Oh and Hazler (2009) conducted a retrospective study with 298 college students, asking them to provide information about their experiences with bullying, intervening, and being a victim in middle and high school. Students noted they were more likely to intervene in bullying if they were close to the victim (β = 0.14).

[239] Pöyhönen et al. (2012) conducted a survey with 6,397 third-through-fifth graders in Finland about the likelihood of bystander intervention. The researchers found that elementary school-age peers tended to intervene when they believed the victim would feel better and they valued making the victim feel better (β = 0.03). By contrast, they remained passive when they valued reducing bullying behavior, but did not believe bullying would decrease if they intervened (β = -0.05).

[240] Wernick et al. (2013) conducted a study on bystander interventions in anti-gay bullying with 1,171 high school students from the Riot Youth Project in Michigan. Overall, peers intervening in anti-gay bullying was associated with a greater likelihood of other students intervening (β = 0.19).

[241] Frisen and Holmqvist (2010) asked 877 students at ages 13 and 16 to identify effective bullying prevention strategies. At age 13, 14% said that having students intervene to stop bullying was an effective response, and this percentage increased to 16% of students at age 16.

[242] Polanin et al. (2012) conducted a meta-analysis of 11 K–12 studies of bystander interventions, and found that peer bystander interventions are effective at increasing defending behavior (Hedges g = .20).

[243] Ellis and Shute (2007) conducted a study that examined teacher responses to bullying. Overall, the greater the perceived severity of a bullying scenario, the more likely teachers were to respond to it $(Bs$ = 5.16-8.37).

[244] Ttofi and Farrington (2011) found that when treatment teachers received training on a bullying program, students in control teacher classrooms had higher levels of bullying behavior compared to treatment students (Odds Ratio = 1.46).

[245] Aboud (2007) examined student bystander behavior. The researcher found that when younger students (Grades 2 and 3) had a positive adult role model they were more likely to intervene in bullying episodes compared to older students (Grades 5 and 6), F (1, 87) = 4.00, p < .05.

[246] Wernick et al. (2013) found that seeing teachers intervene in anti-gay bullying was associated with a greater likelihood of other students intervening (β = 0.07).

[247] This study included 877 Swedish children who were interviewed at age 13 and at age 16. Researchers asked the adolescents about effective bullying prevention strategies. At age 13, 13% said that having staff respond to bullying was an effective response and this percentage increased to 22% at age 16 (Frisen & Holmqvist, 2010).

[248] Richard et al. (2012) looked at the impact of teacher-student interactions on bullying behaviors in a sample of 18,222 French students and 701 teachers. Using HLM, researchers found that more positive student-teacher interactions related to lower levels of victimization (Effect Sizes = -0.15 for physical, -0.15 for verbal).

[249] Roth et al. (2011) explored how middle school students' perceptions of teachers' emotions and actions influence classroom bullying in a sample of 725 Israeli students in 27 classrooms. Using HLM, researchers found that students' perceptions of teachers as compassionate and sympathetic to their perspective significantly predicted decreases in bullying behavior (β = -0.12).

[250] This was a study of 101 Lesbian, Gay and Bisexual (LGB) students in high school who completed a survey about their perceptions of school climate and social support. Amongst LGB youth, greater perceptions of teacher support related to more positive perceptions of school belonging (β = 0.32) (Murdock & Bolch, 2005).

[251] This study explored how respect relates to bullying behavior in a sample of 3,147 fifth through twelfth grade students in 26 schools. Overall, a regression analysis revealed that peer respect for one another explained a significant and substantial amount of the variance in bullying behaviors within schools (14.4%). Higher levels of peer respect related to lower levels of bullying in the school r(22) = 0.43 (Langdon & Preble, 2008)

[252] Salmivalli et al. (2011) conducted a study on the relation between classroom beliefs and bullying in a sample of 6,764 third through fifth grade students in 385 classrooms. HLM analyses revealed that

greater beliefs in anti-bullying in classrooms were significantly associated with lower levels of bullying behavior (B = -0.21).

[253] Pozzoli, et al., (2012) conducted a study with 797 elementary school and 1,028 Italian middle school students who completed a survey about bystander behavior in response to bullying. HLM analyses revealed that perceived peer pressure to defend victims was associated with greater defending behavior (C = .17, t(1791) = 5.51, p < .001).

[254] Rigby and Johnson (2006) conducted a study on peer bystander intervention with 400 Australian adolescents. Regression analyses revealed that perceiving friends as expecting intervention in bullying was associated with greater defending behavior (B = 0.18).

[255] Salmivalli et al. (2011) conducted a study on the relation between classroom beliefs and bullying in a sample of 6,764 third through fifth grade students in 385 classrooms. HLM analyses revealed that having more peers defending victims in a class was associated with a reduced frequency of bullying (B = -0.35).

[256] Ttofi and Farrington (2009) conducted a meta-analysis of the literature examining 59 high-quality studies of anti-bullying programs to determine what components are associated with positive outcomes. Having classroom management strategies for observing and responding to bullying, compared to no anti-bullying management strategies, was associated with decreases in bullying (Odds Ratio = 1.46).

[257] Ttofi and Farrington (2011) conducted a meta-analysis of the literature examining 89 high-quality studies of anti-bullying programs to determine what components are associated with positive outcomes. Having classroom management strategies for observing and responding to bullying, compared to no class anti-bullying strategies, was associated with decreases in bullying (Odds Ratio = 1.44). Additionally, having class rules against bullying, compared to no class rules against bullying, was associated with decreases in bullying (Odds Ratio = 1.44).

[258] Skues et al. (2005) conducted a study about the relationship of bullying to psychological and academic outcomes in a sample of 975 Australian students in years 7 to 12 of schooling. Overall, MANOVA analyses revealed that more frequent bullying (compared to being bullied sometimes) was related to lower peer F (2, 963) = 150.76, p < .001, teacher F (2, 963) = 24.59, p < .001, and school connectedness F (2, 963) = 24.54, p < .001, and lower motivation to learn F (2, 963) = 15.10, p < .001.

[259] Glew et al. (2005) conducted a study with 3,530 third through fifth-grade students, and asked students about bullying and victimization experiences at their school. Researchers used logistic regression for the primary analyses. Overall, not feeling safe at school among elementary school students related to greater odds of being a victim versus a bystander (Odds Ratio = 2.1) and greater odds of being a bully versus a bystander (Odds Ratio = 2.5).

[260] Popp (2012) conducted a study with 8,031 U.S. adolescent students, and found that gang presence in a school (versus lack of gang presence) was associated with an increased risk of physical bullying victimization (Odds Ratio = 1.49) and social bullying victimization (Odds Ratio = 1.28)

[261] Richard,et al. (2012) conducted HLM analyses with a sample of 18,222 French students and 701 teachers and found that greater perceptions of a safe school environment were associated with lower levels of bullying (Relative Effect Sizes = -0.16 for physical, -0.08 for verbal).

[262] In a sample of ninth-grade students from 291 high schools, researchers used HLM analyses on survey data and found that a supportive school climate was positively and significantly related to willingness to seek help (Standardized Estimate = 0.59, p < .001) (Eliot et al., 2010).

[263] Barchia and Bussey (2011) conducted a longitudinal study with 1,167 Australian adolescents in Grades 7–10. The researchers found that when students had higher perceptions of school efficacy in preventing aggression, they were more likely to defend victims ($\beta = 0.08$).

[264] Brighi et al. (2012) investigated which factors predict traditional and cyber-bullying in a sample of 2,326 Italian adolescents. Overall, perceptions of a positive school climate related to lower incidences of victimization for males and females (Effect Sizes = 0.17 to 0.26).

[265] Gendron et al. (2011) examined the impacts of school climate on bullying behavior in a sample of students in Grades 5, 8, and 11 across 78 schools. There was a significant interaction between school climate and self-esteem, such that among high self-esteem students, positive school climate perceptions related to less bullying (Effect Size = -0.47).

[266] Ttofi and Farrington (2011) conducted a meta-analysis of 89 high-quality studies of anti-bullying programs and found that having a whole school anti-bullying policy, compared to no whole school anti-bullying policy, related to decreases in bullying (Odds Ratio = 1.44)

[267] In a study of 8,031 U.S. adolescent students, when students perceived school rules as fair and consistently enforced there were lower levels of physical bullying victimization (Odds Ratio = 0.72) and social bullying victimization (Odds Ratio = 0.76) (Popp, 2012).

[268] Ttofi and Farrington (2009) examined 59 high-quality studies of anti-bullying programs to determine what components are associated with positive outcomes. Having punishments for bullying behavior, in contrast to no punishments, related to decreases in bullying (Odds Ratio = 1.66) and victimization (Odds Ratio = 1.50)

[269] Ttofi and Farrington (2011) explored 89 high-quality studies of anti-bullying programs to determine what components are associated with positive outcomes. Having punishments for bullying behavior, compared to no punishments, was associated with decreases in bullying (Odds Ratio = 1.59) and victimization (Odds Ratio = 1.44).

[270] This was a meta-analysis of 41 bullying intervention studies. Having parent training or meetings on anti-bullying, compared to no parent training or anti-bullying meetings, was associated with decreases in bullying (Odds Ratio = 1.57) and victimization (Odds Ratio = 1.41) (Farrington & Ttofi, 2009).

[271] This meta-analysis examined 59 high-quality studies of anti-bullying programs to determine what components are associated with positive outcomes. Training parents on anti-bullying initiatives was associated with decreases in bullying (Odds Ratio = 1.59) and victimization (Odds Ratio = 1.47) compared to no parent training. Furthermore, providing some type of anti-bullying information for parents was associated with decreases in bullying (Odds Ratio = 1.48) compared to not providing anti-bullying information for parents (Ttofi & Farrington, 2009).

[272] This meta-analysis examined 89 high-quality studies of anti-bullying programs to determine what components are associated with positive outcomes. Training parents on anti-bullying initiatives was associated with decreases in bullying (Odds Ratio = 1.57) and victimization (Odds Ratio = 1.41) when compared to no parent training. Furthermore, providing some type of anti-bullying information for parents was associated with decreases in bullying (Odds Ratio = 1.44) when compared to not providing parents with anti-bullying information (Ttofi & Farrington, 2011).

[273] In a twin study with 2,232 children, risk factors at age 5 were associated with bullying and victimization at age 7. Overall, more family abuse was associated with increased victimization (Odds Ratio = 1.9) and increased likelihood of being a bully-victim (Odds Ratio = 2.1). Additionally, greater

exposure to violence at home related to a greater prevalence of bullying behavior (Odds Ratio = 1.4) (Bowes, Arsenault et al., 2009).

[274] This was a study of 558 U.S. students who completed a survey about bullying during the past 30 days. Being slapped or hit at home was associated with greater bullying behaviors ($\beta = 0.09$) (Espelage et al., 2000).

[275] This study investigated which factors predict traditional and cyber-bullying in a sample of 2,326 Italian adolescents. Overall, greater feelings of parental rejection related to more cyber victimization for females ($\beta = 0.14$) and poor perceptions of parental relationships related to more cyber victimization for males ($\beta = -0.15$) (Brighi et al., 2012).

[276] This study included 7,290 high school adolescents in Canada and examined risk factors for being a bully, victim, or bully-victim. ANCOVA analyses revealed that high school aged-bullies, victims, and bully-victims were more distant from their mothers compared to uninvolved students (Partial Eta Squared = 0.02) (Marini et al. (2006).

[277] This was a study of 696 students from Australia, who were a subset of the International Youth Development study. The longitudinal study examined how traditional bullying behaviors relate to bullying two years later. The researchers found that when children experience conflict at home in Grade 7, they have greater odds of bullying behavior in Grade 9 (Odds Ratio = 1.4) (Hemphill, et al., 2012).

[278] Espelage et al. (2000) found that spending time unsupervised at home was associated with greater bullying behaviors ($\beta = 0.16$).

[279] Shetgiri et al. (2013) collected data from a sample of 48,639 parents of 10- to 17-year-old children in 2003 and another 44,152 parents in 2007 as part of the National Survey of Children's Health. Logistic regressions revealed the following factors were associated with greater odds of children being bullied in 2003 and 2007: parents feeling like their child hassles them a lot (Odds Ratios = 2.27-2.43) and parents are often angry with their child (Odds Ratios = 1.83-3.15).

[280] Shetgiri et al. (2013) found that poor maternal mental health was associated with a greater risk of children being bullied (Odds Ratios = 1.45-1.56).

[281] In a study of 1,116 twins from the longitudinal Environmental E-risk twin study, researchers found that warmth from moms ($\beta = 0.17$) and a supportive home climate ($\beta = 0.23$) predicted resiliency in the face of bullying. Additionally, for bullied children, being in a more warm ($\beta = -0.75$ to -2.34) and supportive home environment ($\beta = -0.23$ to -0.44) were associated with fewer long-term psychological issues (Bowes, Maughan et al., 2010).

[282] In a study with 7,508 adolescents (Grades 6-10) from the Healthy Behavior in School-Aged Children study, researchers conducted logistic regressions to examine what protective factors predict different types of bullying. Overall, greater parental support related to lower likelihoods of being a bully or being a victim of physical bullying (Odds Ratios = 0.57-0.91), verbal bullying (Odds Ratios = 0.57-0.69), relational bullying (Odds Ratios = 0.61-0.62), and cyber-bullying (Odds Ratios = 0.54-0.55) (Wang et al., 2009).

[283] Shetgiri et al. (2013) found that parents talking with their children and sharing thoughts (Odds Ratios = 0.50-0.59) and parents meeting their child's friends (Odds Ratios = 0.58-0.77) were associated with lower odds of being bullied.

[284] Nickerson et al. (2008) conducted a study of bystander intervention behavior in a sample of 105 sixth through eighth grade U.S. students. Using logistic regression, researchers found that greater maternal

(Odds Ratio = 2.10) or paternal (Odds Ratio = 1.70) attachment predicted higher levels of bystander behavior.

[285] Zablotsky et al. (2012) conducted a study with 1,148 parent-child dyads of children with Autism. They found that parents of children who had been bullied had more negative perceptions of the school (β = -0.27). However, parental involvement and interactions with their children's school was related to more positive perceptions about the school (r = 0.13).

[286] Donnon (2010) conducted a study with 2,991 middle and high school students in Canada, examining how various coping and positive strength factors (e.g., support of parents, school, peers) related to bullying behaviors. Donnon (2010) found that when middle and high school students have support from a variety of areas and contexts (e.g., parents, peers, community, school climate), they are three to eight times less likely to carry a weapon. Additionally, having lower amounts of support across contexts was associated with increased likelihood of bullying.

[287] Espelage et al. (2000) found that having positive adult role models who do not condone aggression and violence was associated with less bullying behaviors amongst middle school students (β = -0.27).

[288] Popp (2012) examined how different factors relate to bullying victimization in a sample of 8,031 U.S. adolescent students. Having supportive peer or adult figures related to lower levels of social bullying victimization (Odds Ratio = 0.85).

[289] Ttofi and Farrington (2009) conducted a meta-analysis of 59 studies of anti-bullying programs and found that greater supervision of students on playgrounds is associated with a decreased risk of bullying behavior (Odds Ratio = 1.60).

[290] This meta-analysis of 89 studies of anti-bullying programs found that greater supervision of students on playgrounds was associated with a decreased risk of bullying behavior (Odds Ratio = 1.53) (Ttofi & Farrington, 2011).

[291] This meta-analysis of 249 studies on school violence prevention programs found that programs with a multimodal approach are effective at reducing violence, provided individuals are exposed to the program on a frequent basis (i.e., several times a week) (Effect Size = 1.25). (Wilson & Lipsey, 2007).

[292] Wilson et al. (2003) conducted a meta-analysis of 221 studies on school violence prevention programs, finding that lower quality program implementation related to lower program effectiveness in reducing violent behaviors (Effect Size = 0.35).

[293] Andreou et al. (2008) conducted an effectiveness study of a bullying prevention program with Grade 4-6 students in Greece. Researchers found the treatment group had less bullying (ε^2 = 0.04), more negative thoughts toward bullying (ε^2 = 0.19), more positive feelings for victims (ε^2 = 0.14), higher self-efficacy to intervene (ε^2 = 0.18), and were more likely to intervene immediately after the intervention (ε^2 = 0.15). However, there were no differences between groups six months later and schools did not monitor program implementation.

[294] Bell et al. (2010) examined the efficacy of the Bully Buster Program and included 52 teachers and 488 students. Researchers found that teachers reported higher levels of efficacy in creating a positive classroom (d = 0.51) and feeling more capable of working with bullies and victims (d = 0.40). However, students reported problem behaviors increased following the intervention (d = 0.21). Researchers did not monitor program implementation.

[295] Beran et al. (2004) examined the impact of the Dare to Care bullying intervention in a sample of 197 students. The study found that students who participated in a bullying prevention program had more positive attitudes toward victims if they participated in a 2-year program but not anything shorter in duration ($F = 2.74$, $p = .01$). There were no program impacts for the 3-month, 1-year, or 2-year program on reports of bullying (seen or experienced), support strategies, or school climate. Schools were free to implement the program in various ways and program implementation was not measured.

[296] Cowie and Olafsson (2000) conducted a study of a peer support/intervention program and found that bullying incidences increased over time ($U = 24961$, $p = .03$). However, teachers did not support the new initiative and students in charge of implementing the program did not follow suggested implementation guidelines, suggesting poor implementation.

[297] In a meta-analysis of 221 studies on school violence prevention programs, low quality program implementation was related to less effective reductions in violent student behaviors (Effect Size = 0.35) (Wilson et al., 2003).

[298] Farrington and Ttofi (2009) conducted a meta-analysis of 41 studies of bullying intervention programs. They found that when teachers spent 10 or more hours in program training there are associated decreases in bullying (Odds Ratio = 1.52) and victimization (Odds Ratio = 1.37) compared to spending 9 hours or less. Furthermore, when students spent more than 20 hours exposed to the program there were associated decreases in bullying (Odds Ratio = 1.62) and victimization (Odds Ratio = 1.42) compared to spending 19 hours or less.

[299] This meta-analysis examined 59 high-quality studies of anti-bullying programs to determine what components were associated with positive outcomes. When teachers spent 15 or more hours in program training there were decreases in bullying (Odds Ratio = 1.54) and victimization (Odds Ratio = 1.47) compared to 14 or fewer hours. Furthermore, when students spent more than 20 hours exposed to the program there were decreases in bullying (Odds Ratio = 1.65) and victimization (Odds Ratio = 1.46) (Ttofi & Farrington, 2009) compared to 19 or fewer hours.

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[301] In a study of the Olweus Bullying Prevention Program in thirteen elementary and middle schools, researchers found that when schools implemented 75% or more of the program's core components, there was a 5% reduction in bullying. By contrast, those with lower implementation saw a 14% increase in bullying (Black et al., 2010).

[302] This randomized control trial of the Steps to Respect program ($n = 34$ schools) found the following when 92% of teachers reported implementing the programs core components fully: greater use of anti-bullying guidelines (Effect Size = 0.38); better school climate for staff (Effect Size = 0.26) and students (Effect Size = 0.21); a smaller decrease in reports of students being willing to intervene in bullying (Effect Size = 0.28) compared to the control; and a greater decline in bullying issues at the school (Effect Size = -0.35) compared to the control condition. They also found a smaller increase in bullying at the treatment compared to the control schools (Adjusted Odds Ratio = 0.61). Students at treatment schools reported a smaller decrease in teacher interventions in bullying (Adjusted Odds Ratio = 1.27), more students (Effect Size = 0.12) and staff intervening (Effect Size = 0.13), more students acting as positive bystanders

(Effect Size = 0.14), and a more consistent climate for students (Effect Size = 0.19) compared to control schools (Brown et al., 2011).

[303] This study explored how teacher implementation of the Steps to Respect program impacted student outcomes. Researchers found that when teachers implemented the program more closely, they perceived their students as more socially skilled (d = 0.30) (Hirschsten et al. 2007).

[304] In a study of the Safe School Ambassadors program in middle school, greater school implementation of the program related to a decrease in school-wide behavior issues (p < .0001) (Pack et al., 2011).

[305] One study of a drama-based anti-bullying program found that stronger positive effects of the program in classes that implemented the program to a greater extent (Joronen et al., 2011).

[306] This meta-analysis examined 41 studies of anti-bullying programs to determine what components are associated with positive outcomes. When children spent 270 or more days in an anti-bullying program (compared to fewer days), there were associated decreases in bullying (Odds Ratio = 1.49) and victimization (Odds Ratio = 1.35). Furthermore, when teachers spent 4 or more days in training (compared to fewer days), there were associated decreases in bullying (Odds Ratio = 1.50) and victimization (Odds Ratio = 1.41) (Farrington & Ttofi, 2009).

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