

LOVE AND LOGIC: AN EVIDENCE-BASED APPROACH DESIGNED TO CREATE POSITIVE SCHOOL AND HOME CULTURES

Charles Fay, Ph.D.

For more than five decades, severe disruptive behavior among youth has evolved from a relatively minor concern to a significant daily reality experienced by many (American Educator, 1996; Browne, 2013; Elam, Rose & Gallup, 1996; Lewis, Sugai, & Colvin, 1998; Walker, Colvin & Ramsey, 1995; Walker, Ramsey & Gresham, 2004). The National Institute of Mental Health (2002) and others (see Costello et al. 2001; Egger and Angold, 2006; US Public Health Service, 2000), estimate that as many as 20% of American youth experience emotional and/or behavior problems. It's also estimated that approximately 1 in 10 U.S. youth display some degree of more severe conduct problems (McMahon & Estes, 1997).

Considering these statistics, it's clear that many parents are struggling with high levels of stress and lack of certainty regarding how to support their children in the development of emotional and behavioral health (Graf et al, 2014; Shapiro, et al, 2008). Supporting these concerns is the growing frequency and intensity of emotional and behavioral problems observed by classroom educators (Bromfield, 2006; Cotton, 1990; Daniels, 2009; Fideler & Haselkorn, 1999; Fields, 2000; Garret, 2014; Lundeen, 2002).

The Intervention

In 1974, Foster Cline, M.D., a child psychiatrist treating severely disturbed children, and Jim Fay, a classroom educator and successful administrator sought to integrate diverse theoretical perspectives with the goal of developing a set of practical

and effective strategies for helping parents support the emotional and behavioral health of their children. Their research-based approach was first formalized in the books *Parenting with Love and Logic* (Cline & Fay, 1990), *Parenting Teens with Love and Logic* (Cline & Fay, 1992) and *Teaching with Love and Logic* (Fay & Funk, 1995). Since that time, national and international demand for information on their approach has resulted in over 50 publications outlining its application to community parent-training initiatives and the improvement of academic achievement, parent-teacher relationships, classroom management, school-wide culture, and marriage relationships. Currently, over 12,000 trainers offer this approach in the U.S, England, Mexico, Canada, Argentina, Brazil, Norway, Israel, Australia and other countries.

Cerdorian (2006), in her study of 374 parents, observed that those completing Love and Logic parenting classes reported dramatic and statistically significant reductions in parenting stress and behavior problems from pre-test to post.

Overall, stress related to the parenting role significantly decreased for parents in both treatment groups. While overall, the stress level of the comparison group increased over the time of the study, the parents who attended classes were less stressed *in their parenting* role by the completion of classes. Among treatment group parents of children one month to 11 years, 44.9%, and treatment group parents of youth 11 to 18, 43.5%, had clinically significant stress levels prior to the intervention of parenting classes. This decreased to 23.9% and 27.8% respectively, after the set of classes was completed. The study also supported a statistically significant decrease in perceived problem behavior for parents of children one month to 11 years. (pp. 105-106)

Fay (2012) in a study of 2,409 parents representing a wide range of socio-economic and ethnic groups observed an 18% reduction in self-reported parenting stress ($p < .001$) and a 21% reduction in perceived child behavioral problems ($p < .001$) from pre-Love and Logic training to post. Statistically significant improvements (all $p < .001$) were also observed for the ratings listed below:

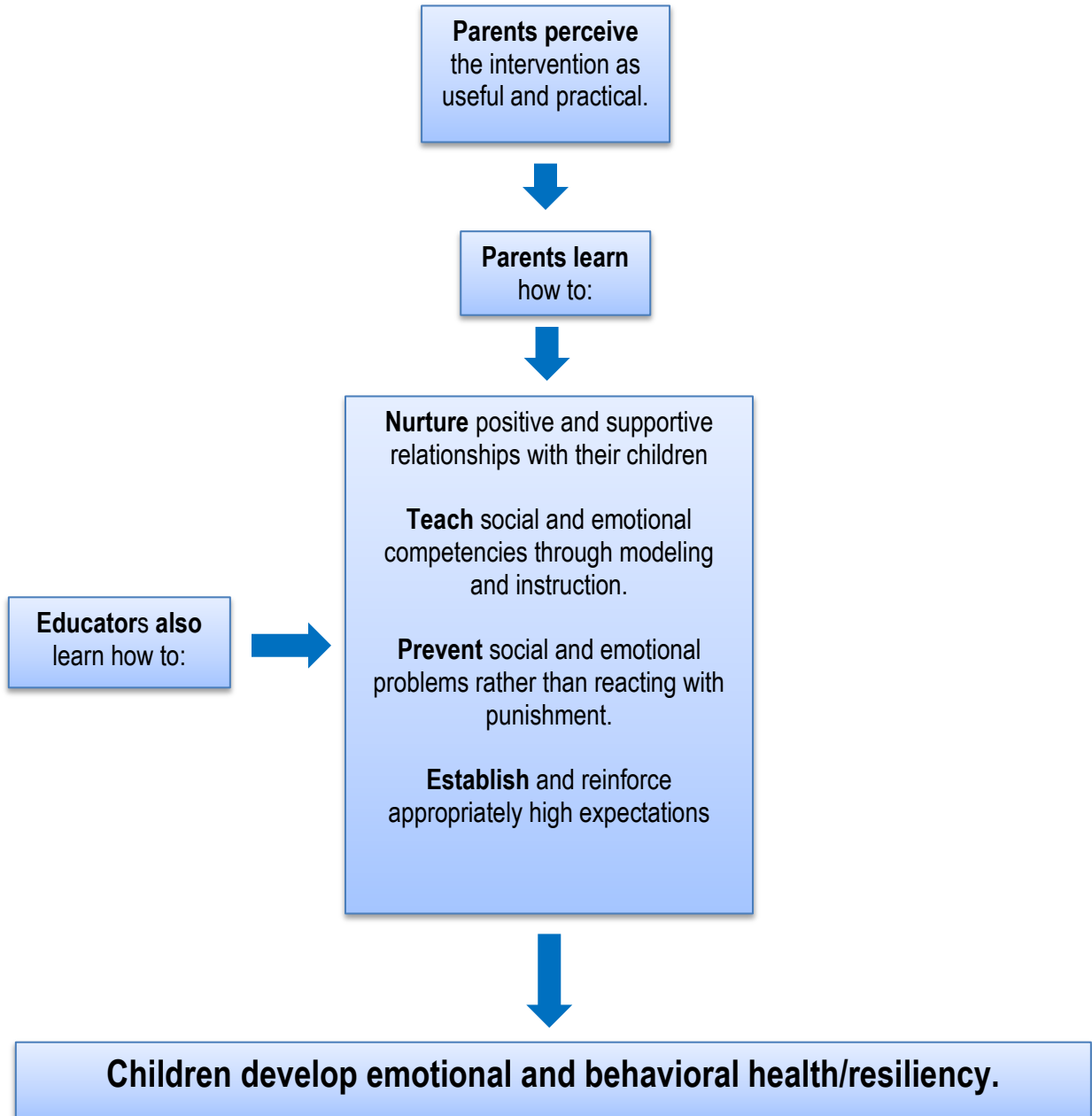
	Mean Ratings	
	Pre Love and Logic	Post Love and Logic
I find myself staying calm when I have to discipline.	2.89	3.62
I find myself feeling really stressed out.	3.09	2.41
My child argues and talks back.	3.44	2.63
My child throws tantrums or “fits”	2.95	2.30
My child completes chores without reminders or pay.	2.38	2.85

Participants also provided qualitative responses to, “Identify the most valuable thing you learned in this class.” Select responses are included below:

- Remembering to whisper when I feel like yelling.
- Parenting is fun...not simply something to be endured.
- It’s so much easier to not get into power struggles and arguments now that I know the way to do it. I feel a lot more calm about discipline.
- This class has helped me calm down and not get so frustrated!
- How to control myself not my child. I react differently now and so does he. More positive interaction over conflict.
- Empathy, empathy, empathy! Because anger is my old pattern and because empathy helps me calmly think about appropriate actions/consequences.
- I loved it. I plan to bring my mother to a session. (p. 9)

Literature Review

The Love and Logic approach is based on the following process, integrating a wide array of established theory and research:



Parents perceive the intervention as useful and practical. Unfortunately, evidence-based approaches to parenting and classroom management are not always received with enthusiasm by those they are intended to help: parents and teachers. A common complaint is that these approaches take too much time and are impractical given the daily realities of homes and classrooms (Carnine, 1997; Kern & Manz, 2004).

The construct of social validity, according to Wolf (1978), defines the perceived value consumers place on a product. Interventions enjoying high social validity are not only perceived as being effective in experimentally controlled settings, but are also as viewed as needed and applicable within the serious time limitations experienced by today's parents and educators (Albin et al., 1996; Graf et al, 2014; Kazdin et al, 1997; Schwartz & Baer, 1991; Spoth & Redmond, 1995; Witt & Elliott, 1985).

The international popularity of the Love and Logic approach suggests it's social validity. Further, Clarke (2004), evaluating pre and post rating of parents trained in the approach observed that 91.4% of the 637 parents sampled reported imported improvements in their parental experience as a result of using the techniques learned in the course. 76.5% reported improvements in their children's behavior. Anecdotes collected after the training also supported its perceived value:

I don't fly off of the handle when dealing with him (son). I feel better instead of yelling all of the time. (p.1)

I sent my paperwork home to my mother, who is keeping my children while I am in prison. She is now using love and logic. She enjoys the techniques with the children. She also stated that it helps out a whole lot. (p.1)

Offering Love and Logic training to 22 High School teachers, Johnson (2014)

observed the following:

There was a statistically significant change between pre- and post- study responses ($p=.0004$) regarding teachers' perception of Love and Logic's importance to the school, starting with 75 percent unsure of its importance but ending with 65 percent indicating that it was important or very important. Similarly, 85 percent of the participants were undecided about their feelings concerning Love and Logic prior to the study, but 90 percent felt positive or very positive about it after the study ($p<.0001$. (pp. 67-70)

Parents learn to nurture positive and supportive parent-child relationships.

The parent-child relationship is the single most powerful environmental factor affecting the life-long adjustment of children (Foshee & Bauman, 1994; Regalado and Halfon, 2002; Seeley, Stice, & Rohde, 2009; Sheeber, Hops, Alpert, Davis, & Andrews, 1997; Stice, Ragan, & Randall, 2004).). In their recent study of 692 children grades 3rd, 6th and 9th Hazel, et al (2014) observed that those experiencing positive and supportive parent-child relationships were far less likely to succumb to stress-related mental illness and behavior problems when confronted with common developmental stressors.

The parent-child relationship has also been observed as a powerful factor reducing the likelihood of academic failure (Clark, Dogan & Akbar, 2003; Heaven & Newbury, 2004; Robertson & Reynolds, 2010), drug use and other forms of delinquency (Huebner & Betts, 2002; Laundra, Kiger & Bahr, 2002), sexual risk-taking (Huebner & Howell, 2003; Ream & Savin-Williams, 2005; Karofsky, Zeng & Kosorok, 2000) and

even internet and video game addiction (Kwon, Chung & Lee, 2009; Lee, Honk & Park, 2005).

Evidence strongly suggests that healthy parent-child relationships are most effectively fostered when parents employ a dynamic balance between providing affection and necessary limits (Dishion 1990; Eisenberg and Murphy, 1995; Grusec & Goodnow, 1994; Maccoby & Martin, 1983; Richaud, Mesurado & Lemos, 2013). These findings support Baumrind's (1991; 1996) observation that effective parents employ an authoritative style rather than an authoritarian or permissive one. Cline and Fay (1990), two founding members of the Love and Logic process, encourage parents to adopt a "consultant" style of parenting, closely resembling Baumrind's authoritative style:

Love and Logic parents avoid the helicopter and drill sergeant mentalities by using a consultant style of parenting as early as possible in the child's life. They ask their children questions and offer choices. Instead of telling their children what to do, they put the burden of decision making on their kid's shoulders. They establish options within limits. Thus, by the time the children become teens, they are used to making good decisions (p. 27)

We as parents must show our empathy...our sincere loving concern...when the consequences hit. That's what drives the lesson home with our children without making them feel as though we're not "on their side." (p.103).

Parents learn to teach social and emotional competencies. Children are not born with the social and emotional skills required for success in life. When young people are explicitly shown these skills, are given opportunities to practice, and receive supportive feedback, dramatic improvements are often demonstrated in a variety of areas, including social skills (Gresham, Bao, & Cook 2006) and anger management (Barnoski, 2004; Glick, & Gibbs, 2011; Mitchell 2009).

More specifically, children must be given opportunities to observe and practice problem-solving skills. These opportunities require that (1) caring adults teach these competencies through modeling, instruction and coaching; and (2) children are allowed to solve the problems they create. (Foster, Prinz & O’Leary; 1983; Kerr & Bowen, 1988) and children enjoy opportunities to develop self-efficacy (Bandura, 1977).

Spivak and Sure (1974) in their pioneering research on social problem-solving, have noted that modeling and direct instruction are key strategies for teaching problem-solving skills. Similar propositions have been made by Bandura, 1976; Bandura & Jeffery, 1973; Cormier & Cormier (1991). Therefore, the Love and Logic approach gives parents specific guidelines for using modeling, direct instruction and feedback to teach the following problem-solving process:

1. Identify and define the problem.
2. Brainstorm solutions.
3. Evaluate each solution.
4. Implement the solution chosen.

Research supporting this problem-solving model is supported by D’Zurilla (1986), as well as Cormier and Cormier (1991).

Parents learn to prevent social and emotional problems. Highly effective approaches focus primarily on prevention, while less effective ones focus on punishment (Clunies-Ross et al, 2008; Lewis, Sugai & Colvin, 1998; Mayer & Sulzer-Azaroff, 1991). Interventions targeting the development of positive, supportive and structured home environments provide powerful and cost effective opportunities to prevent many of the social, emotional, behavioral and academic problems facing our youth (England,

Luckner, Whaley, & Egeland, 2004; Fan & Chen, 2001; Ganzach, 2000; Patterson, Reid, & Dishion, 1992; Pomerantz, Ng, & Wang, 2006; Walker, Colvin, & Ramsey. 1995; Walker, 1998.)

Schroeder and Kelley (2009) note:

An accumulating body of literature has shown that positive parenting (characterized by warmth, sensitivity, expressiveness, and adequate limit setting) is associated with children's inhibition and ability to maintain attention (Eisenberg et al. 2005), self-control (Le Cuyet-Maus and Houck 2002), and behavior problems (Bradley and Corwyn 2005). (p.228)

Schroeder and Kelly's (2009) data corroborates these findings, showing significant and positive relationships between parental warmth, limits and structure and the development of metacognitive skills essential for self-control. Clearly, many emotional and behavioral problems can be successfully managed, or prevented altogether, when parents (and educators) provide supportive relationships, caring climates, clear boundaries, supervision, appropriate consequences for violating boundaries, high yet developmentally appropriate expectations, and other resiliency factors (Barber & Olson, 1997; Benson et al,1994; Benson, 2006; Larson, et al, 2004).

Parents learn how to establish and reinforce appropriately high expectations.

High expectations are essential to the prevention of emotional, behavioral and academic problems in both home and school environments. While Rosenthal's and Jacobson's (1968) classic Pygmalion study has been questioned on methodological grounds, the overall body of research conducted since that time clearly shows that the cultures of highly successful schools and homes are epitomized by high expectations (Bond & Saunders, 1999; Eccles, Wigfield, & Schiefele, 1998; Englund, Luckner, Whaley, &

Egeland, 2004; Fan & Chen, 2001; Flouril, & Hawkes, 2008; Ganzach, 2000; Goyette & Xie, 1999; Good, & Nichols, 2001; Juang & Silbereisen, 2002; Mistry, 2007; Sandefur, Meier, & Campbell, 2006; Zhang, Haddad, Torres, & Chuansheng, 2011). Notably, Doren, Gau and Lindstrom (2012) followed a nationally representative sample of over eleven thousand 13- to 17- year-old special education students and their parents. Those whose parents communicated high expectations were at least twice as likely to graduate from high school, obtain a job and engage in post-secondary education.

Educators and parents “speak the same language.” The challenges facing children are complex and multidimensional, affected by a variety of interacting systems. As such, intervention programs are far more likely to achieve effective and sustainable outcomes when they take a social-ecological perspective (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006; Minuchin, 1985; Salzinger, Feldman, Stockhammer, & Hood, 2001) where protective factors are promoted in both the family and the school systems.

Crowe (2013), in a longitudinal study of 1,364 children in ten U.S. communities observed that home-school cooperation in children’s education, particularly when this cooperation begins early in the child’s school career, contributes to significantly improved school success. Love and Logic approach places heavy emphasis on the development of cooperative and consistent home and school environments where parents and educators are “speaking the same language” and working toward the same goal of fostering emotional and behavioral health among children and teens.

Training elementary school teachers, Weir (1997) observed high levels of teacher “buy-in” and use of the program in this school. After implementing this program: (a) 87% of teachers reported having more effective tools for managing student behavior; (b) 84% reported improved relationships with their students; (c) 68% reported decreased time spent managing behavior disruptions; (d) 71% reported increased time spent teaching curriculum; and (e) 82% reported having more control over discipline. Weir also observed a 48% decrease in the number of main office referrals for discipline during the first year this school applied the *Love and Logic* program.

Ridgeview Global studies academy is a charter elementary school in central Florida with over 600 students, grades k – 5. During the 2001-2002 school year, staff were trained in the Love and Logic approach (Frier, 2003). After making this one change dramatic improvement was observed: Referrals to the office for misbehavior decreased from 380 during the 2000 – 2001 school year to 116 during the 2002-2003 school year. A large reduction in referrals related to misbehavior on the school busses was also noted: 509 (2000-2001 school year) reduced to 142 (2002-2003 school year.)

Spencer (2008), in a pilot study of 33 schools in Georgia provided Love and Logic teacher training across elementary, middle and high school levels:

75% of those trained agreed that Love and Logic “Positively impacts my school’s learning environment”

71% agreed that the program “Positively impacts student achievement in my school.”

75% agreed that “Instructional time is maximized throughout my school.”

Using single-subject methodology, Mckenna (1997) examined the effects of a Love and Logic on a nine-year-old student’s academic motivation, personal hygiene,

classroom behavior, general demeanor, and self-concept. Teacher ratings and anecdotal observations revealed improved personal hygiene, an elevated frequency of positive peer and adult interactions and increased rates of homework completion. Pre and post test scores on the Pierris-Harris Self-Concept scale revealed a statistically significant 16-point improvement over the course of intervention.

Fay (2007) examined the results of training nearly 1,000 elementary and middle school teachers in the Love and Logic approach. Pre-test to post ratings revealed statistically significant (all $p < .001$) for the ratings listed below:

	Mean Ratings	
	Pre Love and Logic	Post Love and Logic
The most behaviorally challenging students:		
argue with me	3.18	2.74
interrupt me	3.78	3.00
cooperate with me	2.92	3.37
refuse to do their work	3.04	2.59
solve their own problems with guidance	2.80	3.43
As an educator I find myself:		
being really stressed out and exhausted	2.85	2.42
feeling confident that I can handle discipline problems	3.62	4.09
enjoying good relationships with challenging students	3.59	3.99

Recently, Johnson (2014) trained 22 High School teachers in the Love and Logic approach. Each was asked to provide ratings pre-training and post. Results of quantitative analyses revealed the following:

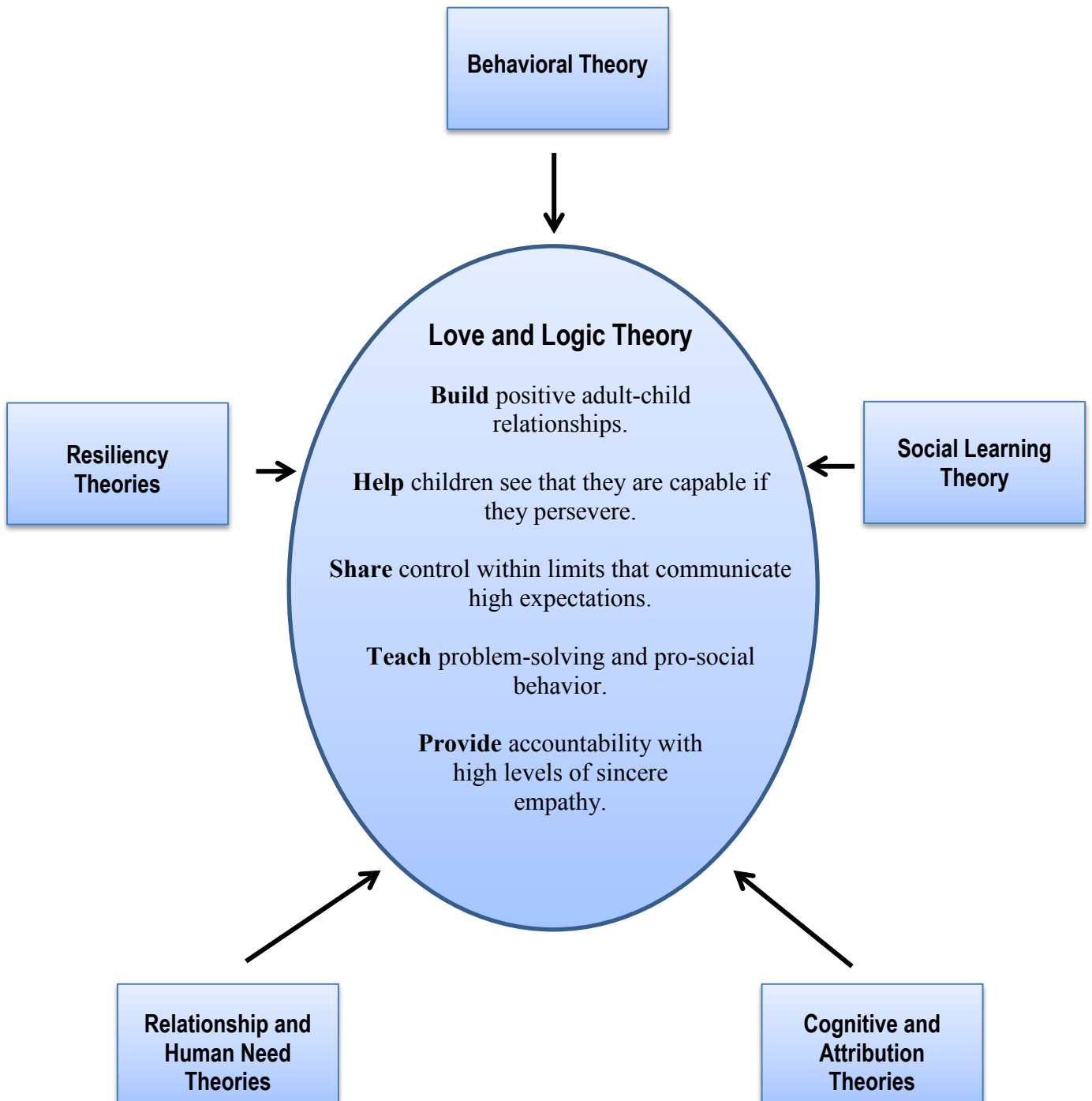
	<i>t</i>	<i>p</i>
I have a successful process to help disruptive students recover so they can get back on task.	6.64	<.0001
I enjoy students, even behaviorally challenging ones.	4.23	.0003
I am skilled with preventative interventions for a variety of student misbehaviors.	5.74	<.0001
I feel stressed because of problems with students.	-2.30	.0314
I am successful with students who get argumentative.	6.14	<.0001

Qualitative data also provided some promising results:

Many indicated that the technique worked in their classroom and beyond by stating that they had “learned a better way to speak to students and others,” that it deescalated defensiveness and rebellion in students and others, and that it “had a positive impact on classes of students at school and at church.” Many pointed out that it had a positive effect on their most challenging students, those they generally struggled to reach. For example, one participant commented, “I learned that I can’t force anyone to do anything, so I have to reword my statements so that I can actually enforce them.” (p. 83)

Theoretical Roots of the Love and Logic approach

The Love and Logic Theory is the result of over four decades of clinical practice and research integrating five theoretical perspectives:



Behavioral theories. Antecedent and other contextual stimuli develop the ability to cue emotional and behavioral processes through the dynamic interplay between classical and operant conditioning (Pavlov, 1927; Skinner, 1953; 1974; Thorndike, 1911); and Watson & Rayner, 1920). As such, Fay and Cline argue that effective home and school interventions must address the role played by adults in these conditioning processes. Some primary objectives of the Love and Logic approach are as follows:

- Parents and teachers are paired with positive emotions and outcomes, so that they automatically elicit these responses in the children they care for.
- Academic learning and responsible behavior are also paired with positive emotions and outcomes, so that books and good behavior automatically elicit these emotions.
- Youth learn through wise application of reinforcement principles that good behavior is far more rewarding than bad.
- Once desired behaviors are established, maintenance and generalization is enhanced through the use of variable reinforcement schedules (Ferster & Skinner, 1957) and social reinforcement (Hall, Lund & Jackson, 1968).

While behavioral theories and associated practices provide powerful strategies for establishing and maintaining desired behaviors, Fay and Cline were concerned with their inability to adequately address the roles played by vicarious learning and underlying cognitive and emotional processes. Therefore, they sought to address these potential shortcomings by integrating additional theory and research.

Social Learning Theory. In their classic study Bandura, Ross and Ross (1961) observed that children watching vignettes of an actor hitting a “Bobo” doll were more likely to exhibit aggressive behavior themselves. In later investigations, Bandura also documented that modeling results in far more than simple mimicry; children learn complex rules governing cause and effect by simply observing those around them.

(Bandura & Jeffery, 1973; Bandura, 1977). Based on these observations, Fay and Cline propose the following:

- What we do is at least as important as what we say.
- Therefore, highly Love and Logic parents and educators place a heavily emphasis on controlling their *own* behavior so that they can remain effective models.
- Effective parents and educators also engage in healthy self-care, including the appropriate setting and enforcement of boundaries, so they can remain positive models.

Cognitive and Attribution Theories. Social Learning Theory provides a bridge from traditional behavioral theory to approaches recognizing the role played by cognitive processes. Of great interest is the construct of vicarious reinforcement, where the likelihood of an observed behavior being copied is a function of whether it was observed being rewarded Bandura, 1965; Bandura, Ross & Ross, 1963; Bandura, et al, 1967).

Clearly this type of learning requires complex cognitive processes

Rescorla (1988) also provides compelling evidence regarding the role played by cognition in basic conditioning processes, arguing that the “information value” of stimuli may be more important than the precise temporal connection between them. Stated simply, stimuli that consistently predict certain events are more likely to leave us believing that they are important. When parents and educators consistently enforce the limits they set, these stated limits gain high information value.

These provocative finding have particular relevance when considering the subject of child maltreatment. A common argument made by proponents of strict behaviorism is that consequences must be provided immediately after an infraction. Fay and Cline contend that a significant portion of abuse in homes (and schools) results from parents

trying to provide discipline in the “heat of the moment.” Rescorla’s work suggests otherwise. As a result, the Love and Logic approach emphasizes:

- When you are too angry to think straight, delay the consequence.
- Effective parents and educators are most concerned with providing appropriate consequences that teach pro-social behavior, than administering quick ones that may or may not achieve this goal.
- The “information value” of a parent or teacher’s words is more important than how quickly they provide consequences. Too many adults make rash threats and find that they are unable to follow through on the discipline they promise. Under these circumstances, they attempt to provide immediate consequences actually undermine their disciplinary goals.
- When children observe adults controlling their own behavior by delaying action until they are calm, they have an opportunity to learn these same self-regulation skills.

Festinger’s (1957) theory of Cognitive Dissonance has significantly shaped the Love and Logic theory of change, particularly as it applies to modifying children’s attitudes toward academic achievement and positive behavior. According to Festinger, an uncomfortable state of “cognitive dissonance” develops when individuals perform behaviors inconsistent with their beliefs. To relieve this discomfort, a person has two basic options: (1) stop performing the behavior; or (2) change one’s beliefs to align with the behavior. Practical implications of this theory present themselves when attribution processes are considered. Attitude change resulting from cognitive dissonance is less likely to occur when individuals are able to attribute the inconsistent behavior to external pressures or temptations. Conversely, beliefs are more likely to align with new behavior when individuals such external sources of justification are absent.

A study by Aronson and Carlsmith (1963) demonstrated these processes at work in an early childhood classroom. Both groups of children were told not to play with a newly

introduced toy. One group was warned of significant consequences if they broke the rule. A second group was warned of only mild consequences for breaking this rule. Not surprisingly, the children warned of more significant consequences rated the toy as being far more appealing than those warned of only mild ones. From a theoretical standpoint, dissonance was reduced in the significant consequence group because the children were able to reason, “If I played with the toy knowing that I would be in big trouble, that toy must really be something special! How could I help myself?”

As a result of these and other findings, the Love and Logic theory of change places heavy emphasis on the following:

- Effective parents and educators avoid providing threats and lectures, because doing so provides children with an opportunity to attribute rule breaking and rule following to external variables, rather than new and more positive attitudes.
- Effective parents and educators also rely as little as possible on promising children tangible rewards for desired behavior. While appropriate in certain circumstances, doing so does provides an opportunity for young people to attribute their good behavior to the promised reward rather than a changed mind.
- Behavior and attitude change is primarily achieved by allowing children to learn from modeling, direct instruction, positive feedback on performance and opportunities to solve the problems they create.

Attributions also have a powerful impact on academic achievement motivation. According to Weiner (1979), high achievers are more likely to attribute their performance to controllable factors, such their level of effort or perseverance. Low achievers, in contrast, tend to their attribute performance to uncontrollable factors, such as luck, the actions of others, or intelligence. A strong body of research has consistently supported

these propositions (Diener, C. & Dweck, C. (1978). Dweck & Leggett, 1988; Elliott & Dweck, 1988; Diener & Dweck, 1980; 2000; 2012).

Interestingly, Mueller and Dweck (1998) observed a consistent effect across six studies: Children praised for ability were less likely to persevere when confronted with difficult tasks, displayed less enjoyment of such tasks and actually performed more poorly than those who've received feedback emphasizing effort.

Based on this body of research, the Love and Logic theory of change posits the following:

- The focus must be placed on helping children see the contribution of personal effort and perseverance to achievement.
- Effective parents and educators replace feedback like, "That's great! You are so smart" with "How did you achieve that? Did you work really hard or keep trying?"
- Adults model healthy attributions by thinking out loud around young people, allowing them to overhear statements like, "This was really hard for me, but I'm glad that I kept trying."

Relationship and human need theories. The Love and Logic theory of change was strongly shaped by the clinical experiences of Fay and Cline suggesting that treatment gains and maintenance of such gains suffered when underlying physical and emotional needs were not considered. Converging with this clinical experience is the work of Maslow (1943), Glasser (1969) and Rogers (1957; 1961), suggesting that optimal outcomes are only possible when such needs are met within the context of supportive, accepting relationships. Supporting this early theory is the strong body of research addressed above documenting the supreme importance of positive parent-child and

teacher-student relationships. Therefore, the Love and Logic theory of change proposes the following:

- Positive relationships are inherently therapeutic.
- Parents and educators must understand that the effectiveness of all interventions hinges on the quality of the adult-child relationship and the child's social connection with the classroom and family team.
- Children must feel physically and emotionally safe. Otherwise, these needs will take precedence over pro-social behavior and academic motivation.
- Parents and educators must allow children to experience freedom within appropriate developmental limits.
- Effective educators and parents help build self-efficacy by guiding children toward genuine, effort-based success experiences.
- Effective educators and parents have fun while teaching and parenting, and they help children see that learning and behaving can be enjoyable.

Resiliency Theories. Benson, Galbraith and Espeland (1995) in their study of 270,000 students grades six through twelve, observed a number of “developmental assets” which help children avoid academic failure, emotional problems, criminal behavior, substance abuse, and other negative outcomes. Similar findings have been obtained by others (see Garmezy, 1994; Luthar & Zigler, 1991; Masten & Coatsworth, 1998; Werner & Smith, 1992). Resiliency factors directly addressed by the Love and Logic theory of change are as follows:

- Highly supportive and loving families and schools.
- Parents who establish open communication with their children.
- Positive parent-teacher relationships and parent involvement.
- Positive school climate.
- Appropriate standards for behavior at home and school (i.e., limits).
- Positive school and parental discipline.
- Positive relationships between children and adults other than parents.
- Learning to use empathy with others.
- Decision-making skills.
- Self-esteem.

Current Research Initiative

At this time, ongoing research is being conducted, continuing to examine the effectiveness of the Love and Logic parent and educator training programs using quasi-experimental methods. If you are interested in participating, please contact Dr. Charles Fay at drcfay@loveandlogic.com.

References

- Albin, R., Lucyshyn, J., Horner, R. & Flannery, K. (1996). Contextual fit for behavioral support plans. In L. Koegil, R. Koegil, & G. Dunlap (Eds.), *Positive behavioral support: Including people with difficult behaviors in the community* (pp. 81-97). Baltimore, MD: Brookes.
- Aronson, E. and Carlsmith, J. (1963) Effects of severity of threat in the devaluation of forbidden behavior, *Journal of Abnormal and Social Psychology*, 66, 584-588
- American Educator. (1996). Elements of an effective discipline strategy. *American Educator*, 19, 24-27
- Bandura, A. (1965). Influence of models' reinforcement contingencies on the acquisition of imitative responses. *Journal of Personality and Social Psychology*, 1, 589-595.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1976). Effecting change through participant modeling principles. In J.D. Krumboltz & C.E. Thorensen (Eds.), *Self-control: Power to the person* (pp. 86 – 110). Pacific Grove, CA: Brooks/Cole.
- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A., Grusec, J. & Menlove, F. (1967). Vicarious extinction of avoidance behavior. *Journal of Personality and Social Psychology*, 5, 16-23.
- Bandura, A & Jeffery, R. (1973). Role of symbolic coding and rehearsal processes in observational learning. *Journal of Personality and Social Psychology*, 26, 122-130.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development*, 67, 1206–1222.
- Bandura, A., Ross, D. & Ross, S. (1961). Transmission of aggression through imitation of aggressive models. *Journal of Abnormal and Social Psychology*, 63, 575-582.
- Bandura, A., Ross, D. & Ross, S. (1963). Vicarious reinforcement and imitative learning. *Journal of Personality and Social Psychology*, 67, 601-607.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence*, 11, 56–95.

- Baumrind, D. (1996). The discipline controversy revisited. *Family Relations*, 45, 405–414.
- Barber, B. & Olsen, J. (1997). Socialization in context: Connection, regulation, and autonomy in the family, school, and neighborhood, and with peers. *Journal of Adolescent Research*, 12, 287–315.
- Barnoski, R. (2004). *Outcome evaluation of Washington State's research-based programs for juvenile offenders*. Olympia, WA: Washington State Institute for Public Policy.
- Benson, P. (2006). *All kids are our kids: What communities must do to raise caring and responsible children and adolescents*. San Francisco: Jossey Bass.
- Benson, P., Espeland, P., & Galbraith, J. (1994). *What kids need to succeed*. Minneapolis: Free Spirit.
- Bond, R., & Saunders, P. (1999). Routes of success: Influences on the occupational attainment of young British males. *British Journal of Sociology*, 50, 217–249.
- Benson, P., Leffert, N., Scales, P., & Blyth, D. (1998). Beyond the “village” rhetoric: Creating healthy communities for children and adolescents. *Applied Developmental Science*, 2, 138–159.
- Benson, P., Galbraith, J. & Espeland, P. (1995). *What kids need to succeed: Proven, practical ways to raise good kids*. Minneapolis, MN.: Free Spirit Publishing.
- Bradley, R. & Corwyn, R. (2007). Externalizing problems in fifth grade: Relations with productive activity, maternal sensitivity, and harsh parenting from infancy through middle childhood. *Developmental Psychology*, 43, 1390–1401.
- Brophy, J. (1983). Research on the self-fulfilling prophecy and teacher expectations. *Journal of Educational Psychology*, 75, 631-661.
- Bromfield, C. (2006). PGCE secondary trainee teachers & effective behaviour management: An evaluation and commentary. *Support for Learning*, 21, 188-193
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. & Morris, P. (2006). *The bioecological model of human development*: Wiley Online Library.
- Browne, K. (2013). Challenging behavior in secondary school students: Classroom strategies for increasing positive behavior . *New Zealand Journal of Teachers' Work*, 125-147.

- Carnine, D. (1997). Bridging the research-to-practice gap. *Exceptional Children*, 63, 513-521.
- Casanova, P., Garcí'a-Linares, M., de la Torre, M., & de la Villa Carpio, M. (2005). Influence of family and socio-demographic variables on students with low academic achievement. *Educational Psychology*, 25, 423–435.
- Cerdorian, K. (2006). The relationship between parenting style, parenting stress and a parenting intervention. Unpublished doctoral dissertation. The University of Northern Colorado.
- Chiu, L & Tulley, M. (1997). Student preferences of teacher discipline styles. *Journal of Instructional Psychology*, 24, 168-175.
- Clark, R., Dogan, R., & Akbar, N. (2003). Youth and parental correlates of externalizing symptoms, adaptive functioning, and academic performance: An exploratory study in preadolescent Blacks. *Journal of Black Psychology*, 29, 210–229.
- Cline, F. & Fay, J. (1990). *Parenting with love and logic*. Colorado Springs, CO: Pinon Press.
- Cline, F. & Fay, J. (1993). *Parenting teens with love and logic*. Colorado Springs, CO: Pinon Press.
- Clunies-Ross, P., Little, E., & Kienhuis, M. (2008). Self-reported and actual use of proactive and reactive classroom management strategies and their relationship with teacher stress and student behaviour. *Educational Psychology*, 28, 693–710.
- Cormier, W. & Cormier, S. (1991). *Interviewing skills for helpers: Fundamental skills and cognitive behavioral interventions*. Pacific Grove, CA: Brooks/Cole.
- Costello, E. J., Keeler, G. P., & Angold, A. (2001). Poverty, race/ethnicity, and psychiatric disorder: A study of rural children. *American Journal of Public Health*, 91, 1494–1498.
- Cotton, K (1990). *School Improvement Series. Close up #9: Schoolwide and classroom discipline*. Portland, OR: Norwest Regional Education Laboratory.
- Crowe, C. (2013). A longitudinal investigation of parent educational involvement and student achievement: Disentangling parent socialization and child evocative effects across development. *Journal of Educational Research & Policy Studies*, 13, 1-32.
- Daniels, M. (2009). The three fs of classroom management. *AASA Journal of Scholarship and Practice*, 6, 18-24.

- de Boer, H., Bosker, R. & van der Werf, M. (2010). Sustainability of teacher expectation bias effects on long-term student performance. *Journal of Educational Psychology, 102*, 168–179
- D’Zurilla, T. (1986). *Problem-solving therapy: A social competence approach to clinical intervention*. New York: Springer.
- Diener, C. & Dweck, C. (1978). An analysis of learned helplessness: Continuous changes in performance, strategy, and achievement cognitions following failure. *Journal of Personality and Social Psychology, 36*, 451-462.
- Diener, C. I., & Dweck, C. S. (1980). An analysis of learned helplessness: II. The processing of success. *Journal of Personality and Social Psychology, 39*, 940–952.
- Dishion, T. J. (1990). Peer context of troublesome behavior in children and adolescents. In P. Leone (Ed.), *Understanding Troubled and Troublesome Youth*. Beverly Hill: Sage.
- Doren, B., Gau, J., & Lindstrom, M. (2012). The relationship between parent expectations and postschool outcomes of adolescents with disabilities. *Council for Exceptional Children, 79*, 7-23.
- Dweck, C. (2000). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA: Psychology Press.
- Dweck, C. (2012). Implicit theories. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 2, pp. 43–61). Thousand Oaks, CA: Sage.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95*, 256–273.
- Eccles, J., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of Child Development: Vol. 3, Social Emotional and Personality Development* (5th ed. pp. 1017–1095). New York: Wiley.
- Egger, H., & Angold, A. (2006). Common emotional and behavioral disorders in preschool children: Presentation, nosology, and epidemiology. *Journal of Child Psychology and Psychiatry, 47*, 313–337.
- Eisenberg, N., & Murphy, B. (1995). Parenting and children’s moral development. In M. H. Bornstein (Ed.), *Handbook of Parenting* (Vol. 4, pp. 227–257). Mahwah: Erlbaum.

- Elam, S., Rose, L., & Gallup, A. (1996). Twenty-eighth annual Phi Delta Kappa/Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 78, 41-59.
- Elliott, E. & Dweck, C. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology*, 54, 5-12.
- Englund, M., Luckner, A., Whaley, G., & Egeland, B. (2004). Children's achievement in early elementary school: Longitudinal effects of parental involvement, expectations, and quality of assistance. *Journal of Educational Psychology*, 96, 723-730.
- Emmer, E. & Evertson, C. (1981). Synthesis of research on classroom management. *Educational Leadership*, 38, 342-347.
- Emmer, E., Evertson, C. & Anderson, L. (1980). Effective classroom management at the beginning of the school year. *Elementary School Journal*, 80, 219-231.
- Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A metaanalysis. *Educational Psychology Review*, 13, 1-22.
- Fay, C. (2007). Effects of the 9 Essential Skills for the Love and Logic Classroom training program on teachers' perceptions of their students' behavior and their own teaching competence: A preliminary investigation. Unpublished outcome data. The Love and Logic Institute: Golden, Colorado.
- Fay, C. (2012). Effects of the Becoming a Love and Logic Parent Training Program on parents' perceptions of their children's behavior and their own parenting stress. Unpublished outcome data. The Love and Logic Institute: Golden, Colorado.
- Fay, J & Fay, C. (2012) 9 Essential Skills for the Love and Logic Classroom. Golden, Colorado: The Love and Logic Institute, Inc.
- Fay, J & Fay, C. (2012) Parenting the Love and Logic Way. Golden, Colorado: The Love and Logic Institute, Inc.
- Fay, J. & Cline, F. (1997). *Discipline with love and logic teacher training course*. Golden, CO: The Love and Logic Press.
- Fay, J. & Funk, D. (1995). *Teaching with love and logic*. Golden, CO: The Love and Logic Press.
- Ferster, C.B., & Skinner, B.F. (1957). *Schedules of Reinforcement*. New York: Appleton-Century-Crofts.

- Festinger, L. (1957) *A Theory of Cognitive Dissonance*, Stanford, CA: Stanford University Press
- Fideler, E. & Haselkorn, D. (1999). *Learning the ropes: Urban Teacher Induction Programs and Practices in the United States*. Belmont, MA: Recruiting New Teachers.
- Fields B., (2000), School discipline: Is there a crisis in our schools? *Australian Journal of Social Issues*, 35, 73.
- Finn, J. (1989). Withdrawing from school. *Review of Educational Research*, 59, 117-142.
- Flouri, E & Hawkes, D. (2008). Ambitious mothers – successful daughters: Mothers’ early expectations for children’s education and children’s earnings and sense of control in adult life. *British Journal of Educational Psychology*, 78, 411–433.
- Foshee, V., & Bauman, K. (1994). Parental attachment and adolescent cigarette smoking initiation. *Journal of Adolescent Research*, 9, 88–104.
- Foster, S., Prinz, R., & O’Leary, K. (1983). Impact of problem-solving communication training and generalization procedures on family conflict. *Child and Family Behavior Therapy*, 5, 1 – 23.
- Frier, R. (2003). Ridgeview Global Studies Academy Discipline Report – 2000-01, 2001-02 and 2002-03. Unpublished School Data. Ridgeview Global Studies Academy, Davenport, FL.
- Ganzach, Y. (2000). Parents’ education, cognitive ability, educational expectations and educational attainment: Interactive effects. *British Journal of Educational Psychology*, 70, 419–441.
- Garrett, T. (2014). Classroom management: A world of misconceptions. *Teaching & Learning*, 28, 36-43.
- Garmezy, N. (1994). Reflections and commentary on risk, resilience, and development. In R.J. Haggerty, L. Sherrod, N. Garmezy, & M. Rutter (Eds.), *Stress, Risk, and Resilience in Children and Adolescents: Processes, Mechanisms, and Interventions*. New York: Cambridge University Press.
- Glasser, W. (1969). *Schools without failure*. New York: Harper & Row.

- Glick, B., & Gibbs, J. (2011). *Aggression replacement training, third edition*. Champaign, IL: Research Press.
- Good, T., & Nichols, L. (2001). Expectancy Effects in the Classroom: A Special Focus on Improving the Reading Performance of Minority Students in First-Grade Classrooms. *Educational Psychologist, 36*, 113–126
- Goyette, K., & Xie, Y. (1999). Educational expectations of Asian American youths: Determinants and ethnic differences. *Sociology of Education, 72*, 22–36.
- Graf, F., Grumm, M., Hein, S., & Fingerle, M. (2014). Improving Parental Competencies: Subjectively Perceived Usefulness of a Parent Training Matters. *Journal of Child and Family Studies, 23*, 20–28.
- Gresham, F., Mai Bao, V., & Cook, C. (2006). Social skills training for teaching replacement behaviors: Remediating acquisition deficits in at-risk students. *Behavioral Disorders, 31* (4), 363–377.
- Grusec, J. & Goodnow, J. (1994). Impact of parental discipline method on the child's internalization of values: A reconceptualization of current of view. *Developmental Psychology, 30*, 4–19.
- Hamre, B. & Pianta, R. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development, 72*, 625-638.
- Hamre, B. & Pianta, R. (2005). Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Development, 76*, 949-967.
- Harris, M. & Rosenthal, R (1985) Mediation of interpersonal expectancy effects: 31 metaanalyses, *Psychological Bulletin, 97*, 363-386
- Hayek, M. (2001). *Effects of Parent Training With Love and Logic at Navigator School*. Unpublished research conducted in collaboration with Wayne State University.
- Hazel, N., Oppenheimer, C., & Technow, J., (2014). Relationship quality buffers against the effect of peer stressors on depressive symptoms from middle childhood to adolescence. *Developmental Psychology, 50*, 2115–2123.
- Heaven, P. & Newbury, K. (2004). Relationships between adolescent and parental characteristics and adolescents' attitudes to school and self-rated academic performance. *Australian Journal of Psychology, 56*, 173–180.

- Huebner, A. & Betts, S. (2002). Exploring the utility of social bond theory for youth development. *Youth & Society*, 34, 123 – 145.
- Johnson, M. (2014). The efficacy of using enforceable statements as a High School classroom management technique. Unpublished doctoral dissertation. Jones International University.
- Johnson, V., Cowan, P., & Cowan, C. (1999). Children's classroom behavior: The unique contribution of family organization. *Journal of Family Psychology*, 13, 355–371.
- Juang, L. & Silbereisen, R. (2002). The relationship between adolescent academic capability beliefs, parenting and school grades. *Journal of Adolescence*, 25, 3–18.
- Jordan Irvine, J. (2002). African American teachers' culturally specific pedagogy: The collective stories. In J. Jordan Irvine (Ed.), *In search of wholeness: African American Teachers and Their Culturally Specific Classroom Practices*. New York: Palgrave.
- Karofsky, P., Zeng, L., & Kosorok, M. (2000). Relationship between adolescent-parental communication and initiation of first intercourse by adolescents. *Journal of Adolescent Health*, 28, 41–45.
- Kazdin, A. (1981). Acceptability of child treatment techniques: The influence of treatment efficacy and adverse side effects. *Behavior Therapy*, 12, 453-506.
- Kerr, M. & Bowen, M. (1988). *Family Evaluation: An approach based on Bowen Theory*. New York: W. W. Norton & Company, Inc.
- Kern, L., & Manz, P. (2004). A look at current validity issues of schoolwide behavior support. *Behavioral Disorders*, 30, 47-59.
- Kounin, J. (1970). *Discipline and Group Management in the Classroom*. New York: Hold, Rinehart and Winston.
- Kramer-Schlosser, L. (1992). Teacher distance and student disengagement: Schools lives on the margin. *Journal of Teacher Education*, 43, 128-140.
- Kwon, J., Chung, C. & Lee, J. (2009). The effects of escape from self and interpersonal relationship on the pathological use of internet games. *Community Mental Health Journal*, 47, 112-121
- La Rosa, S., Kiernan, J., Shaw-Reeves, R., Baker, R., Wolf-Branigan, M. & Hayek, M. (2001). *Collaborative action research using Discipline with Love and Logic*. Unpublished research conducted in collaboration between Wayne State University and the Navigator School.

- Larson, R., Eccles, J., & Gootman, J. (2004). Features of positive developmental settings. *The Prevention Researcher, 11*, 8–12.
- Laundra, K., Kiger, G., & Bahr, S. (2002). A social development model of serious delinquency: Examining gender differences. *Journal of Primary Prevention, 22*, 389 – 407.
- Lee, S., Hong, S., & Park, J. (2005). The study on the personal and social influence on internet addiction among adolescents. *The Korean Journal of Educational Psychology, 19*, 1179-1197.
- Lewis, T., Colvin, G. & Sugai, G. (2000). The effects of pre-correction and active supervision on the recess behavior of elementary students. *Education and Treatment of Children, 2*, 109-121.
- Lewis, T., Sugai, G., & Colvin, G. (1998). Reducing problem behavior through a school-wide system of effective behavioral support: Investigation of a school-wide social skills training program and contextual interventions. *School Psychology Review, 27*, 446-459.
- Luthar, S. & Zigler, E. (1991). Vulnerability and competence: A review of research on resilience in childhood. *American Journal of Orthopsychiatry, 61*, 6-22.
- Lundeen, C. (2002). *The study of beginning teachers' perceived problems with classroom management and adult relationships throughout the first year of teaching*. Unpublished doctoral dissertation, University of North Carolina, Chapel Hill.
- Maag, J. (2005). Social skills training for youth with emotional and behavioral disorders and learning disabilities: Problems, conclusions, and suggestions. *Exceptionality, 13*, 155–172.
- Maccoby, E., & Martin, J. (1983). Socialization in the context of the family: Parent-child interaction. In E. M. Hetherington (Ed.), *Handbook of child psychology: Socialization, Personality, and Social Development* (Vol. 4, pp. 1–101). New York: Wiley.
- Marzano, R., Marzano, J. & Pickering, D. (2003). *Classroom Management That Works: Research-Based Strategies for Every Teacher*. Alexandria, VA: ASCD.
- Maslow, A. (1943). A theory of human motivation, *Psychological Review, 50*, 370-396.
- Mayer, G. & Sulzer-Azaroff, B. (1991). Interventions for vandalism. In G. Stoner, M. Shinn, & H. Walker (Eds.), *Interventions for Achievement and Behavior Problems*. Washington, DC: National Association of School Psychologists
- McKenna, J. (1997) *Effects of Systematic Noticing on a Withdrawn Student's Self-Concept*. Unpublished masters degree thesis.

- McMahon, R. & Estes, A. (1997). Conduct problems. In E. J. Mash & L. G. Terdal (Eds.), *Assessment of Childhood Disorders* (3rd ed.). New York: Guilford Press.
- Minuchin, P. (1985). Families and individual development: Provocations from the Field of Family Therapy. *Child Development*, *56*, 289-302.
- Miramontes, N., Marchant, M., Allen, M & Fischer, L. (2011). Social Validity of a Positive Behavior Interventions and Support Model. *Education and Treatment of Children*, *34*, 445-469.
- Mistry, R., White, E., Benner, A. & Huynh, V. (2009). A longitudinal study of the simultaneous influence of mothers' and teachers' educational expectations on low-income youth's academic achievement. *Journal of Youth and Adolescence*, *38*, 826–838.
- Mitchell, C. (2009). *Teaching Prosocial Skills to Antisocial Youth. Aggregate Evaluation Dashboard Report*. Sacramento, CA: California Institute for Mental Health.
- Morganett, L. (1991). Good teacher-student relationships: A key element in classroom motivation and management. *Education*, *112*, 260-264.
- Mueller, C. & Dweck, C. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology*, *75*, 33-52.
- Murray, C., & Malmgren, K. (2005). Implementing a teacher-student relationship program in a high-poverty urban school: Effects on social, emotional, and academic adjustment and lessons learned. *Journal of School Psychology*, *43*, 137-152.
- National Institute of Mental Health. (2002). *Blueprint for Change: Research on Child and Adolescent Mental Health*. Washington, DC: Department of Health and Human Services.
- Nelson, J., Colvin, G., & Smith, D. (1996). The effects of setting clear standards on students' social behavior in common areas of the school. *The Journal of At-Risk Issues*, *3*, 10-19.
- Oswald, K., Safran, S., & Johanson. (2005). Preventing Trouble: Making Schools Safer Places Using Positive Behavior Supports. *Education and Treatment of Children*, *28*, 265-278.
- Patterson, G., Reid, J. & Dishion, T. (1992). *Antisocial Boys: Vol 4. A Social Interactional Approach*. Eugene: Castalia.

- Pavlov, I. (1927). *Conditioned Reflexes: An Investigation of the Physiological Activity of the Cerebral Cortex*. Translated and Edited by G. V. Anrep. London: Oxford University Press.
- Pomerantz, E., Ng, F., & Wang, Q. (2006). Mothers' mastery-oriented involvement in children's homework: Implications for the well-being of children with negative perceptions of competence. *Journal of Educational Psychology, 98*, 99–111.
- Pomerantz, E. & Wei, D. (2006). Effects of mothers' perceptions of children's competence: The moderating role of mothers' theories of competence. *Developmental Psychology, 42*, 950–961.
- Public Health Service, U. S. (2000). *Report of the Surgeon General's Conference on Children's Mental Health: A National Agenda*. Washington, DC: US Government Printing Office.
- Ream, G. & Savin-Williams, R. (2005). Reciprocal associations between adolescent sexual activity and quality of youth-parent interactions. *Journal of Family Psychology, 19*, 171–179.
- Regalado, M., & Halfon, N. (2002). *Primary Care Services: Promoting Optimal Child Development from Birth to Three Years*. The Commonwealth Fund.
- Rescorla, R. (1988). Pavlovian conditioning: It's not what you think it is. *American Psychologist, 43*, 151-160.
- Richaud, M, Mesurado, B. & Lemos, V. (2013). Links between perception of parental actions and prosocial behavior in early adolescence. *Journal of Child and Family Studies, 22*, 637–646
- Robertson, D. & Reynolds, A. (2010). Family profiles and educational attainment. *Children and Youth Services Review, 32*, 1077–1085.
- Rogers, C. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology, 21*, 95 – 103.
- Rogers, C. (1961). *On Becoming a Person*. Boston: Houghton Mifflin.
- Roorda, D., Koomen, H., Spilt, J., & Oort, F. (2011). The influence of affective teacher-student relationships on students' school engagement and achievement. *Review of Educational Research, 81*, 493-529.
- Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development*. New York: Holt.

- Rosenthal, R. (1985). From unconscious experimenter bias to teacher expectancy effects. In J. Dusek, V. Hall, & W. Meyer (Eds.), *Teacher Expectancies*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Sandefur, G., Meier, A., & Campbell, M. (2006). Family resources, social capital, and college attendance. *Social Science Research, 35*, 525–553.
- Salzinger, S. (1992). The role of social networks in adaptation throughout the life cycle. In M. S. Gibbs, J. R. Lachenmeyer, & J. S. Sigal (Eds.), *Community Psychology and Mental Health*. New York, NY: Gardner Press.
- Schwartz, I. & Baer, D. (1991). Social validity assessments: Is current practice state of the art? *Journal of Applied Behavior Analysis, 24*, 186-212.
- Seeley, J., Stice, E., & Rohde, P. (2009). Screening for depression prevention: Identifying adolescent girls at high risk for future depression. *Journal of Abnormal Psychology, 118*, 161–170.
- Shapiro, C., Prinz, R., & Sanders, M. (2008). Population-Wide Parenting Intervention Training: Initial Feasibility. *Journal of Child and Family Studies, 17*, 457–466.
- Sheeber, L., Hops, H., Alpert, A., Davis, B., & Andrews, J. (1997). Family support and conflict: Prospective relations to adolescent depression. *Journal of Abnormal Child Psychology, 25*, 333–344.
- Schlechty (1990). *Schools for the 21st Century*. San Francisco: Josey-Bass
- Schroeder, V. & Kelley, M. (2009). Associations between family environment, parenting practices, and executive functioning of children with and without ADHD, *Journal of Child and Family Studies, 18*, 227–235
- Skinner, B.F. (1974). *About Behaviorism*. New York: Alfred A. Knopf.
- Skinner, B.F. (1953). *Science and Human Behavior*. New York: Macmillan
- Smith, T. E. (1981). Adolescent agreement with perceived maternal and paternal educational goals. *Journal of Marriage and the Family, 43*, 85–93.
- Spivak, G., Sure, M. (1974). *The Problem-Solving Approach to Adjustment*. San Francisco, CA: Jossey-Bass.
- Spoth, R., & Redmond, C. (1995). Parent motivation to enroll in parenting skills programs: A model of family context and health belief predictors. *Journal of Family Psychology, 9*, 294–310.

- Stice, E., Ragan, J., & Randall, P. (2004). Prospective relations between social support and depression: Differential direction of effects for parent and peer support. *Journal of Abnormal Psychology, 113*, 155–159.
- Thorndike, E. (1911). *Animal Intelligence: Experimental Studies*. New York: MacMillan
- Todd, A., Horner, R., Anderson, K., & Spriggs, M. (2002). Teaching recess: Low-cost efforts producing effective results. *Journal of Positive Behavior Interventions, 4*, 46-52.
- Ullucci, K. (2009). “This has to be family”: Humanizing classroom management in urban schools. *Journal of Classroom Interaction, 44*, 13-28.
- Walker, H. 1998. First steps to prevent antisocial behavior. *Teaching Exceptional Children, 30*, 16–9.
- Walker, H., Colvin, G. & Ramsey, E. (1995). *Antisocial Behavior in School: Strategies and Best Practices*. Pacific Grove: Brooks/Cole Publishing Company.
- Walker, H., Ramsey, E., & Gresham, F. (2004). *Antisocial Behavior in School: Evidence-Based Practices* (2nd ed.). Belmont, CA: Wadsworth/Thompson.
- Watson, J. & Rayner, R. (1920). Conditioned emotional reactions. *Journal of Experimental Psychology, 3(1)*, 1-14.
- Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology, 71*, 3-2.5.
- Weinstein, R., Marshall, H., Brattesani, K. & Middlestadt, S. (1982). Student perceptions of differential teacher treatment in open and traditional classrooms. *Journal of Educational Psychology, 75*, 678-692
- Weinstein, R. & Middlestadt, S. (1979). Student perceptions of teacher interactions with male hi and low achievers. *Journal of Educational Psychology, 71*, 421-431
- Wigfield, A., & Eccles, J. (2002). The development of competence beliefs, expectancies for success, and achievement values from childhood through adolescence. In G. Phee (Ed.), *Development of Achievement Motivation*. San Diego: Academic Press.
- Witt, J. & Elliott, S. (1985). Acceptability of classroom management strategies. In T.R.

- Kratochwill (Ed.), *Advances in School Psychology* (Vol. 4). Hillsdale, NJ: Lawrence Erlbaum.
- Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, 11, 203-214.
- Wubbels, T., Brekelmans, M., van Tartwijk, J., Admiral, W. (1999). Interpersonal relationships between teachers and students in the classroom. In H.C.Waxman & H.J. Walberg (Eds.), *New Directions for Teaching Practice and Research* (pp 151-170). Berkeley, CA: McCutchan.
- Wu, J., Hughes, & Kwok, O. (2010). Teacher-student relationship quality type in elementary grades: Effects on trajectories for achievement and engagement. *Journal of School Psychology*, 48, 357-387.
- Zhang, Y., Haddad, E., Torres, B., & Chuansheng, C. (2011). The Reciprocal Relationships Among Parents' Expectations, Adolescents' Expectations, and Adolescents' Achievement: A Two-Wave Longitudinal Analysis of the NELS Data. *Journal of Youth and Adolescence* 40, 479-489.

The 9 Essential Skills for the Love and Logic Classroom
Supporting Theory and Research
Updated December 2011

Is Love and Logic research based? Listed below is a sampling of some supporting theory and research:

Neutralizing Student Arguing

Klahr, A., Rueter, M., McGue, M., Iacono, W., & Burt, A. (2011) The relationship between parent-child conflict and adolescent antisocial behavior: confirming shared environmental mediation. *Journal of Abnormal Child Psychology*, 39, 683-694.

Patterson, G. (1976) The aggressive child: Victim and architect of a coercive system. In E. Mash, L. Hamerlynck, & L. Handy (Eds.), *Behavior Modification and Families* (pp. 267-316) New York: Brunner/Mazel.

Webster-Stratton, C. (1988). Mothers' and fathers' perceptions of child deviance: Roles of parent and child behaviors and parent adjustment. *Journal of Consulting and Clinical Psychology*, 56, 909-915.

Delayed Consequences

Rescorla, R. (1988). Pavlovian conditioning: It's not what you think it is. *American Psychologist*, 43, 151-160

Sutton, R. E. (2004). Emotion regulation goals and strategies of teachers. *Social Psychology of Education*, 7, 379-398.

Sutton, R. E., & Wheatley, K. (2003). Teachers' emotions and teaching: A review of the literature and directions for future research. *Educational Psychology Review*, 15, 327-358.

Thomas, J. A., and Montgomery, P. (1998). On becoming a good teacher: Reflective practice with regard to children's voices. *Journal of Teacher Education*, 49: 372-380.

Empathy

Arsenio, W. F., & Lemerise, E. A. (2001). Varieties of childhood bullying: Values, emotion processes and social competence. *Social Development*, 10, 59-73.

Connor, C., Son, S., Hindman, A., & Morrison, F. (2005). Teacher qualifications, classroom practices, and preschool experience: complex effects on first graders' vocabulary and early reading outcomes. *Journal of School Psychology*, 43, 343-375

Eisenberg, N., & Miller, P. (1987). The relation of empathy to prosocial and related behaviours. *Psychological Bulletin*, 101, 91-119.

Hamre, B. & Pianta, R. (2005). Can instructional and emotional support in the first grade classroom make a difference for children at risk of school failure? *Child Development*, 76, 949-967

- Jensen, E. (1998). *Teaching with the Brain in Mind*. Alexandria, VA: American Association of Counseling and Development
- Kotulak, R. (1997). *Inside the Brain*. Kansas City, MO: Andrews McNeel Publishing.
- NICHD Early Child Care Research Network (2002). The relation of global first grade classroom environment in structural classroom features and teacher and student behaviors. *Elementary School Journal*, 102, 367-387.
- Perry, K., Donohue, K., & Weinstein, R. (2007). Teaching practices and the promotion of achievement and adjustment in first grade. *Journal of School Psychology*, 45, 269-292.
- Rogers, C. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, 21, 95-103.
- Selye, H. (1976). *The Stress of Life* (2nd edition). New York: McGraw-Hill.
- Sprott, J. (2004). The development of early delinquency: Can classroom and school climates make a difference? *Canadian Journal of Criminology & Criminal Justice*, 46(5) 553-557.
- Sutton, J., Smith, P. K., & Swettenham, J. (1999). Social cognition and bullying: Social inadequacy or skilled manipulation? *British Journal of Developmental Psychology*, 17, 435-450.

The Recovery Process

- Osborne, A. (1996). *Legal Issues in Special Education*. Boston: Allyn and Bacon.
- Skiba, R. (2002). Special education and school discipline: A precarious balance. *Behavior Disorders*, 27, 81-97
- Wright, D. (2001). Time away: A procedure to enhance instructional control. *Communique*, 29(5). National Association of School Psychologists.

Developing Positive Teacher/Student Relationships

- Connor, C., Son, S., Hindman, A., & Morrison, F. (2005). Teacher qualifications, classroom practices, and preschool experience: complex effects on first graders' vocabulary and early reading outcomes. *Journal of School Psychology*, 43, 343-375
- Finn, J. (1989). Withdrawing from school. *Review of Educational Research*, 59, 117-142.
- Garmezy, N. (1994). Reflections and commentary on risk, resilience, and development. In R.J. Haggerty, L. Sherrod, N. Garmezy, & M. Rutter (Eds.), *Stress, Risk, and Resilience in Children and Adolescents: Processes, Mechanisms, and Interventions* (pp. 1-19). New York: Cambridge University Press.
- Hamre, B. & Pianta, R. (2005). Can instructional and emotional support in the first grade classroom make a difference for children at risk of school failure? *Child Development*, 76, 949-967
- Kramer-Schlosser, L. (1992). Teacher distance and student disengagement: Schools lives on the margin. *Journal of Teacher Education*, 43, 128-140.
- Morganett, L. (1991). Good teacher-student relationships: A key element in classroom motivation and management. *Education*, 112(2) 260-264.

- NICHD Early Child Care Research Network (2002). The relation of global first grade classroom environment in structural classroom features and teacher and student behaviors. *Elementary School Journal*, 102, 367-387.
- Pederson, E., Foucher, T., & Eaton, W. (1978). A new perspective on the effects of first grade teachers on children's subsequent adult status. *Harvard Educational Review*, 48, 1-31.
- Pianta, R., Steinberg, M., & Rollins, K. (1995). The first two years of school: Teacher-child relationships and deflections in children's classroom adjustment. *Development and Psychopathology*, 7, 297-312.
- Vail, K. (2005). Create great school climate. *Education Digest*, 71(4).
- Wermer, E., & Smith, R. (1980). *Vulnerable but Invincible*. New York: Wiley.

Using Choices to Prevent Power Struggles

- Dattilo, J., & Rusch, F. R. (1985). Effects of choice on leisure participation for persons with severe handicaps. *Journal of the Association for Persons with Severe Handicaps*, 10, 194-199.
- DeLeon, I. G., Fisher, W. W., Rodriguez Catter, V., Maglieri, K., Herman, K., & Marhefka, J. M. (2001). Examination of relative reinforcement effects of stimuli identified through pretreatment and daily brief preference assessments. *Journal of Applied Behavior Analysis*, 34, 463-473.
- Dunlap, G., dePerczel, M., Clarke, S., Wilson, D., White R., & Gomez, A. (1994) Choice making to promote adaptive behavior for students with emotional and behavioral challenges. *Journal of Applied Behavior Analysis*, 27, 505-518.
- Fisher, W. W., & Mazur, J. E. (1997). Basic and applied research on choice responding. *Journal of Applied Behavior Analysis*, 30, 387-410.
- Fisher, W. W., Thompson, R. H., DeLeon, I. G., Piazza, C. C., Kuhn, D. E., Rodriguez Catter, V., et al. (1999). Noncontingent reinforcement: Effects of satiation versus choice responding. *Research in Developmental Disabilities*, 20, 411-427.
- Fisher, W. W., Thompson, R. H., Piazza, C. C., Crosland, K., & Gotjen, D. (1997). On the relative reinforcing effects of choice and differential consequences. *Journal of Applied Behavior Analysis*, 30, 423-438.
- Heller, T., Miller, A. B., & Factor, A. (1999). Autonomy in residential facilities and community functioning of adults with mental retardation. *Mental Retardation*, 37, 449-457.
- Heller, T., Miller, A. B., Hsieh, K., & Sterns, H. (2000). Later-life planning: Promoting knowledge of options and choice-making. *Mental Retardation*, 38, 395-406.
- Jolivet, K., Wehby, J., Canale, J., & Massey, G. (2001). Effects of choice making opportunities on the behavior of students with emotional and behavioral disorders. *Behavioral Disorders*, 26, 131-145.
- Kern, L., Vorndran, C. M., Hilt, A., Ringdahl, J. E., Adelman, B. E., & Dunlap, G. (1998). Choice as an intervention to improve behavior: A review of the literature. *Journal of Behavioral Education*, 8, 151-169.

- Peck, S., Wacker, D., Berg, W., Cooper, L., Brown, K., Richman, D., McComas, J., Frischmeyer, P., & Millard, T. (1996). Choice-making treatment of young children's severe behavior problems. *Journal of Applied Behavior Analysis*, 29, 263-290.
- Romaniuk, C., & Miltenberger, R. G. (2001). The influence of preference and choice of activity on problem behavior. *Journal of Positive Behavior Interventions*, 3, 152-159.
- *Romaniuk, C., Miltenberger, R., Conyers, C., Jenner, N., Jurgens, M., & Ringenberg, C. (2002). The influence of activity choice of problem behaviors maintained by escape versus attention. *Journal of Applied Behavior Analysis*, 35, 349-362.
- Rossow, A. & Hess, C. (2001). Engaging students in meaningful reading instruction. *Teaching Exceptional Children*, 33, 15-20.
- Peck Peterson, S., Caniglia, C., Roysler, A., Macfarlane, E., Plowman, K., Baird, S & Wu, N. (2001). Blending functional communication training and choice making to improve task engagement and decrease problem behavior. *Educational Psychology*, 25, 257-274
- Peck Peterson, S., Caniglia, C. & Royster, A. (2001). Application of choice-making intervention for a student with multiply maintained problem behavior. Focus on Autism & Other Developmental Disabilities, 240-246;

Quick and Easy Preventative Interventions

- Brophy, J. (1983). Classroom organization and management. *Elementary School Journal*, 83, 254-285.
- Emmer, E., & Everson, C. (1981). Synthesis of research on classroom management. *Educational Leadership*, 38, 342-347.
- Kounin, J. (1970). *Discipline and Group Management in the Classroom*. New York: Holt, Rhinehart & Winston.
- Clunies-Ross, P., Little, E., & Kienhuis, M. (2008). Self-reported and actual use of proactive and reactive classroom management strategies and their relationship with teacher stress and student behavior. *Educational Psychology*, 28(6) 693-710.
- NICHD Early Child Care Research Network (2002). The relation of global first grade classroom environment in structural classroom features and teacher and student behaviors. *Elementary School Journal*, 102, 367-387.
- NICHD Early Child Care Research Network (2002). The relation of global first grade classroom environment in structural classroom features and teacher and student behaviors. *Elementary School Journal*, 102, 367-387.
- Pianta, R., Hamre, B. (2009). Conceptualization, measurement and improvement of classroom processes: standardized observation can leverage capacity. *Educational Researcher*, 38, 109-119.
- Van de Grift, W. (2007). Quality of teaching in four European countries: a review of the literature and an application of an assessment instrument. *Educational Research*, 49(2), 127-152.

Guiding Students to Own and Solve their Problems

- Warden, D. & Mackinnon, S. (2003). Prosocial children, bullies and victims: an investigation of their sociometric status, empathy and social problem-solving strategies. *British Journal of Developmental Psychology*, 21, 367-385

- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74–101.
- Crick, N. R., & Dodge, K. A. (1996). Social information-processing mechanisms in reactive and proactive aggression. *Child Development*, 67, 993–1002.
- Joffe, R. D., Dobson, K., Fine, S., Marriage, K., & Haley, G. (1990). Social problem-solving in depressed, conduct-disordered and normal adolescents. *Journal of Abnormal Child Psychology*, 18, 565–575.
- Musun-Miller, L. (1993). Social acceptance and social problem-solving in preschool children. *Journal of Applied Developmental Psychology*, 14, 59–70.
- NICHD Early Child Care Research Network (2004). Multiple pathways to early academic achievement. *Harvard Educational Review*, 74, 1-29
- Richard, B. A., & Dodge, K. (1982). Social maladjustment and problem-solving in school-aged children. *Journal of Consulting and Clinical Psychology*, 50, 226–233.
- Rubin, K., & Rose-Krasnor, L. (1992). Interpersonal problem-solving. In V. B. van Hassett & M. Hersen (Eds.), *Handbook of social development* (pp. 283–323). New York: Plenum.

Data on the 9 Essential Skills Program

Is there any empirical data supporting the effectiveness of the *9 Essential Skills for the Love and Logic Classroom* teacher training curriculum? The answer is yes:

Spencer (2008) observed that teachers trained in the program believed that it:

- Had a positive impact on their school's learning environment
- Had a positive impact on student achievement
- Allowed them to maximize instructional time
- Enabled them to spend less time dealing with student misbehavior
- Prepared them to deal more effectively with this misbehavior

Spencer, P. (2008). *A logical choice? Perceived impacts of love and logic*. (Doctoral dissertation, Capella University).

Bullock (2011) observed similar findings, with teachers indicating that the program:

- Helped them remain calmer and more positive
- Enabled them to avoid arguing with students
- Allowed them to spend more time teaching
- Helped them gain more cooperation from students
- Improved their relationships with students

Bullock, D. (2011). *Early childhood teachers' perceptions of student behavior after implementing love and logic classroom management and discipline program*. (Doctoral dissertation, Walden University)

Our Own Research

We've also been conducting our own research. Beginning in 2002, when the curricula first became available to schools, we've collected data on teacher's perceptions of: (1) how the 9 Essential Skills affected student behavior; and (2) how these skills affected their own level of stress and confidence as educators. At the time of this printing, we've analyzed 1,426 questionnaires completed by educators around the United States.

Tabulated below are basic data describing this sample:

Characteristic	N	Percent or Mean	Standard Deviation
Job Title	1426	61.4% Regular Teacher; 11.5% Special Educator; 3.0% Counselor/Social Worker/Psychologist; 1.8% Administrator; 8.4% Paraprofessional; 13.9% Other	
Grade Level	1416	4.25	2.89
Years of experience	1420	12.61	11.32

Prior to receiving training in the *9 Essential Skills* curricula, participants in this study were asked to rate on a scale of 1-5 how much they agreed with a series of statements pertaining to the behavior of their students, as well as their own perceptions of their experience as educators. (A rating of "1" indicated "Strongly Disagree" whereas a rating of 5 indicated "Strongly Agree") Participants were also asked to complete these ratings after receiving the training. Pre and Post mean scores for each scale are tabulated below:

Statement	Pre training mean	Post training mean
<i>The most behaviorally challenging students...</i>		
<i>...argue with me.</i>	3.17	2.28
<i>...interrupt me when I am teaching.</i>	3.80	3.00
<i>...cooperate with me.</i>	2.89	3.42
<i>...take responsibility for their decisions.</i>	2.29	3.00
<i>...refuse to do their work.</i>	3.04	2.53
<i>...solve their own problems with guidance.</i>	2.80	3.40
<i>I find myself...</i>		
<i>...having fun with students.</i>	4.15	4.34
<i>...feeling really stressed-out and exhausted.</i>	2.85	2.42
<i>...confident that I can handle discipline problems.</i>	3.60	4.11
<i>...enjoying good relationships with challenging students.</i>	3.61	4.00

To further analyze these data, we first, grouped the 10 survey items into two theoretically distinct subscales: The Student Misbehavior Scale (first 6 items) and the Educator Stress Scale (last 4 items). Items were reverse coded as appropriate (e.g., “The most behaviorally challenging students take responsibility for their poor decisions”) so that the final subscale scores provided an indicator of the extent of student misbehavior (ranging from 6 to 30) and educator stress (ranging from 4 to 20) respectively. We employed paired samples t tests for all mean comparisons to examine whether there were any significant pre-post differences in the survey items and subscales. We also tested the normality assumptions—i.e., homogeneity of variance, skewness, and kurtosis—underlying the use of the t test (Katz, Restori, & Lee, 2009). We then performed Wilcoxon's signed-ranks test, a non-parametric test that is not sensitive to normality violations (Blair & Higgins, 1985), for any subscale mean comparison that violated one or more of the normality assumptions. We set alpha at .05 for all primary analyses.

Whenever possible, we included r as an indicator of effect size to reflect the proportion of variance that taking the *Nine Essential Skills for the Love & Logic Classroom* training accounted for in the outcome variables (student misbehavior and/or educator stress). We used values of $r = .10, .24,$ and $.37$ as indicators of small, medium, and large effect sizes respectively as per Cohen's (1992) classification.

Blair, R. C., & Higgins, J. J. (1985). Comparison of the power of the paired samples t test to that of Wilcoxon's signed-ranks test under various population shapes. *Psychological Bulletin*, *97*, 119-128.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155–159.

Katz, G. S., Restori, A. F., & Lee, H. B. (2009). A Monte Carlo study comparing the Levene test to other homogeneity of variance tests. *North American Journal of Psychology*, *11*, 511-522.

Student Misbehavior Scale

As tabulated below, educator-reported student misbehavior declined significantly from pre- to post-training ($t(1360) = 28.63, p < .001$), with subscale scores reduced by 3.67 points (out of 30) on average, a large effect ($r > .37$). Although the distribution was virtually symmetric (skew = .02), it was leptokurtic (kurtosis = .35); thus, further non-parametric analyses were performed. We ran a Wilcoxon's signed-ranks test, which showed that the mean pre-post difference was still statistically significant at $p < .001$. In terms of individual items, all showed significant pre-post reductions ($p < .001$); the two largest pre-post decreases following completion of the *Love & Logic* curriculum for the classroom were that educators reported their students misbehaving less often (item 2) as well as taking more responsibility for their own poor decisions (item 4).

Educator Stress Scale

In the table below, you will also see that self-reported teacher/educator stress also declined significantly from pre- to post-training ($t(1394) = 18.75, p < .001$), with subscale scores reduced by 1.49 points (out of 20) on average, a medium effect ($r > .24$). The distribution was both highly positively skewed (skew = 3.05) and highly leptokurtic (kurtosis = 45.15), indicating that further non-parametric analyses were warranted. We therefore conducted a Wilcoxon's signed-ranks test, which showed that the mean pre-post difference was still statistically significant at $p < .001$. With regard to individual subscale items, all showed significant pre-post changes in the predicted direction at $p < .001$, with the exception of "As an educator, I find myself having fun with my students," which decreased significantly at $p = .012$, but only by .11 points on average. Educators reported the largest increases in their confidence for handling classroom discipline after having taken the *Nine Essential Skills for the Love & Logic Classroom* training.

Subscale	N	Pre-test (Mean, SD)	Post-test (Mean, SD)	Paired Samples <i>t</i> statistic	Pre-Post Significance (<i>p</i> value)	Effect size (<i>r</i>)
Student Misbehavior	1361	20.08 (3.92)	16.41 (4.35)	28.63	.000	.40
Educator Stress	1395	9.54 (2.66)	8.05 (2.65)	18.75	.000	.27

Note. Possible score range on the Student Misbehavior Subscale was 6 to 30; possible score range on the Educator Stress subscale was 4 to 20. Higher scores reflect more educator-reported student misbehavior or educator/teacher stress.

To inquire about updates to supporting research, please phone us at 1-800-338-4065. One of our friendly customer care representatives will be happy to assist you.

If you are interested in conducting research on this curriculum, please contact us as well!