Social-Emotional Development

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Overview

With increasing standards for literacy and math, educators have often overlooked the role of children's social-emotional skills. Recently, however, researchers have argued that children's emotional development (including how children display emotions and regulate themselves) and their social skills are equally important to academic success as their cognitive skills (Denham, 2006; Raver, 2002). Early academic achievement is critically important because children who have difficulty in the early school years tend to continue to perform poorly throughout the elementary school years. Given such, it is imperative that children's programs to improve academic success also focus on children's social and emotional competence.

There are a number of important social-emotional skills involved in children's success in school. This paper will focus on three key social-emotional areas:

- Effortful Control/Regulation
- Emotion Understanding
- Emotional Expressivity

Each of these key skills has been shown to be directly related to how well children transition into formal schooling. Further, there is evidence that these skills have indirect effects through other areas of social-emotional development (Eisenberg, Sadovsky & Spinrad, 2005).

Effortful Control/Regulation

Effortful control is a term used to refer to the regulatory aspect of temperament. In their chapter from the *Handbook of Child Psychology*, Rothbart and Bates (2006) define effortful control as "the ability to inhibit a dominant response and/or to activate a subdominant response, to plan, and to detect errors" (p. 129). Thus, effortful control is typically viewed as the ability to willfully deploy attention (attention focusing and shifting) and inhibit or activate behavior as required.

Imagine a child who tends to work on a task for a long period and who keeps his mind on the activity until it's done. He doesn't seem to have trouble listening to instructions and is able to plan out the things needed for activities. This child would be demonstrating high effortful control. On the other hand, a child who has difficulty waiting her turn, cannot sit still when asked, and is easily distracted when listening to a story would be demonstrating low effortful control skills.

Effortful control also plays an important role in children's control of emotions. Consider the following examples: First, a 3-year-old child is dropped off at preschool by her mother. As soon as the mother leaves the room, the child cries, runs to the door, and tries to get it open. She kicks the door and continues to fuss and cry in sadness and anger. The child cannot be distracted from the door, even when the teachers attempt to comfort her. Now consider a second example in which the mother leaves the room. A child with high levels of effortful control may become upset, but he has the ability to find activities to distract himself. He does not stare at the door, and he is able to wait for his mother to come back. He settles down quickly and inhibits his desire to kick and scream at the door.

Early forms of effortful control are thought to emerge around the end of the first year of life, with rapid improvements with age. These improvements are thought to be the result of motor and cognitive maturation, although there is also evidence that children's environments can promote the development of effortful control (Spinrad et al., 2007). There is considerable development in effortful control in the preschool years (Kochanska et al., 2000). These skills continue to develop through grade school and adolescence (Murphy, Eisenberg, Fabes, Shepard & Guthrie, 1999).

What are the implications of effortful control to school readiness?

One would expect that effortful control would be related to how children perform in school for a variety of reasons. Children who can sit still, pay attention in class, ignore distractions, and follow directions are likely to perform well academically. Indeed, researchers have shown that children with high effortful control tend to have high general academic skills (Kopystynska, Spinrad, Seay & Eisenberg, 2016; NICHD Early Child Care Research Network, 2003; Valiente, Lemery-Chalfant & Castro, 2007; VanSchyndel, Eisenberg, Valiente & Spinrad, 2015). These findings have been replicated in preschool and school-aged samples (Blair & Razza, 2007; McClelland et al., 2007).

In addition to general academic skills, a number of studies to date have shown that measures of effortful control predict children's literacy skills. Liew and colleagues (2008) showed that children who were able to slow down their motor activity, such as walking slowly immediately after walking quickly, scored higher on a reading achievement test when they were in third grade. There is an emerging pattern of results showing that effortful control is related to both literacy and mathematics skills (Blair & Razza, 2007; McClelland et al., 2007; Valiente et al., 2013).

It has been argued that children's effortful control is important to children's academic skills not only because effortful control may help children excel in the classroom environment, but also because this ability likely influences other socio-emotional factors. That is, effortful control is believed to help children have:

- good relationships with their teachers
- the ability to behave well and to get along with peers
- fewer behavioral issues, such as aggression and conduct disorders
- high motivation in school, high perceptions of school as enjoyable, and high levels of participation in class

High effortful control is related to relatively high-quality relationships with teachers. As would be expected, students who have difficulty regulating their attention and behavior are also likely to develop poor student-teacher relationships. Children's relationships with their teachers have been characterized by either conflict or closeness (warmth and support). Conflict between teachers and their students may result in less instruction, less one-on-one time, and less positive feedback. On the other hand, children who know how to control their emotions and behavior tend to develop a close and warm relationship with their teacher. In a sample of low-economic preschool-aged children, Silva and colleagues (2011) showed that effortful control predicted more supportive teacher-child relationships. These associations also have been found in school-aged children (Diaz et al., 2015; Rudasill & Rimm-Kaufman, 2009).

Well-regulated children tended to develop more positive relationships with their teachers; in turn, they are thought to feel more comfortable in school, are more likely to participate in the classroom, and enjoy being in school—factors that have been shown to predict better academic achievement (Ladd, Birch & Buhs, 1999; Silva et al., 2011).

High effortful control is related to relatively high social competence and peer relationships. Children with higher effortful control are able to manage their emotions, get along with others, and engage in socially appropriate behaviors. In addition, children who are high in effortful control are also able to bounce back from stress (Taylor, Eisenberg, Spinrad, Eggum & Sulik, 2013).

My colleagues and I have shown that effortful control helps children to follow rules and do what is asked of them. In one study, we measured children's wholehearted compliance—the ability of a child to follow rules without having an adult continually monitoring the child or repeating the rules or request. This type of compliance is thought to reflect children's internalization of the rules. We have shown that, even in toddlerhood, children's effortful control predicted higher wholehearted compliance (Spinrad et al., 2012).

Studies have consistently shown that effortful control is associated with children's social skills and peer acceptance (Eisenberg et al., 2001; Hanish et al., 2004; Iyer, Kochenderfer-Ladd, Eisenberg & Thompson, 2010; Spinrad et al., 2006, 2007). For example, in a sample of school-aged children, Spinrad and colleagues (2006) showed that effortful control predicted teachers' ratings of how well children are liked by their peers over time, even after controlling for levels of likability two years earlier. When children are accepted by their peers, they tend to enjoy school more, have better work habits, and tend to have higher academic achievement (Buhs & Ladd, 2001; Valiente, Lemery-Chalfant, Swanson & Reiser, 2008; Valiente, Lemery-Chalfant & Swanson, 2010; Valiente et al., 2011; Wentzel, 2003).

High effortful control is related to relatively low behavioral issues in children. The evidence is quite consistent that children with poor regulation skills have more externalizing problem behaviors, such as aggression and conduct problems/delinquency, across various ages (Eisenberg et al., 2005; see Eisenberg, Spinrad & Eggum, 2010, for review). Children with such problems are thought to be disruptive in class, have difficulties with their teachers and peers, and may miss out on classroom opportunities while being disciplined for misbehavior. Thus, these children are at risk for academic problems (Graziano, Reavis, Keane & Calkins, 2007; Ladd, Birch & Buhs, 1999; Ladd & Burgess, 2001; NICHD Early Child Care Research Network, 2003).

High effortful control is related to relatively high academic motivation. Children who show academic motivation tend to enjoy and look forward to going to school, and they engage and participate in classroom activities. Children who are low in effortful control are believed to experience negative emotions and frustration in the classroom—feelings that likely undermine children's enjoyment of school. On the other hand, children with relatively high regulatory skills are thought to develop feelings of inclusion and involvement in school (perhaps through their social relationships at school).

Indeed, research supports this notion. Children with high effortful control tend to report that they enjoy school, look forward to going to school, and seem happy at school. They do not tend to dread going to school or make up reasons to stay home from school (Swanson, Valiente & Lemery-Chalfant, 2012). Effortful control has been shown to predict children's school engagement, school enjoyment, and classroom participation, and in turn, these children demonstrate higher academic achievement (Valiente et al., 2007; Valiente, Swanson, Lemery-Chalfant & Berger, 2014).

Emotion Understanding

Emotion understanding involves being able to identify one's own and others' experienced and expressed emotions, understanding the causes and consequences of emotions, and recognizing which emotions are appropriate given particular circumstances and contexts. Developmentally, children begin using emotion labels (e.g., feeling bad, feeling good) around 1.5 to 2 years of age (Widen & Russell, 2008), and as cognitive and language skills increase, are able to recognize and label basic emotions of happy, sad, afraid, and angry between 2 and 3 years of age. By preschool age, children are better able to understand the contexts surrounding particular emotions; for example, preschoolers develop the knowledge that going to get an ice-cream cone might make someone feel happy, whereas losing a favorite toy might make someone feel sad.

What are the implications of children's emotion understanding to their academics?

Children's understanding of emotions may be related to children's academic success because this skill enables children to communicate effectively with teachers and peers. Further, children who are more advanced in their understanding of emotions may also be better able to work well with others, find the classroom setting as enjoyable, and not become overly stimulated.

Indeed, research, albeit limited, has demonstrated a link between emotion understanding and school success. Izard and colleagues (2001) showed that low-income children's ability to recognize and label emotional expressions was predictive of third-grade academic achievement, even after

taking into account children's initial verbal skills. There have been additional studies that also support the positive association between emotion understanding and academic achievement (Leerkes, Paradise, O'Brien, Calkins & Lange, 2008; Rhoades et al., 2011; Torres et al., 2013; Trentacosta & Izard, 2007).

Researchers have argued that emotion understanding impacts children's academics because such skills predict other aspects of social-emotional behavior, such as high effortful control/emotion regulation, high social competence, and positive peer relationships.

Emotion knowledge is related to high effortful control/regulation skills. Emotion knowledge is likely related to children's academic outcomes partly due to its impact on children's effortful control. Children who are able to understand emotions and communicate about them are likely better able to regulate themselves by using their emotion understanding to choose effective regulatory tactics when upset and by communicating about their feelings. Further, it is likely that children who are high in effortful control are able to learn more about emotion-related issues because they do not become overly distressed in emotional situations. On the other hand, when children are dysregulated and over-aroused, they may be more likely to be focused on their own negative feelings. These reactions are hypothesized to reduce their focus on others' feelings and experiences.

Although research in this area is somewhat limited, there is evidence that emotion understanding is related to effortful control (Maggio et al., 2016; Schultz, Izard, Ackerman & Youngstrom, 2001; Trentacosta et al., 2006). In one noteworthy study, Rhoades and colleagues (2011) showed that preschoolers' emotion knowledge predicted later academic achievement because of its impact on their regulation skills. This finding suggests that emotion knowledge provides skills for children to handle their own emotional arousal, and in turn, these skills provide important tools necessary for learning.

Emotion understanding is positively related to children's social competence and peer relationships. Understanding emotions and the experiences that are associated with emotions are expected to be critical for children's social competence and peer relationships. Children who understand others' emotions ought to be able to respond to others' cues accordingly. In a recent study, Sette, Spinrad, and Baumgartner (2016) showed that Italian preschoolers' ability to recognize emotions positively predicted their socially appropriate behavior a year later, even after controlling for stability in children's socially appropriate behavior. Thus, children who can identify facial expressions of emotions are better able to respond to others in appropriate ways. For example, if a child understands the facial expression of sadness, she can respond to a peer with sympathy when she sees the expression. Other studies have confirmed the relation between children's emotion knowledge and their social skills or peer acceptance (Arsenio, Cooperman & Lover, 2000; Denham et al., 2012; Mostow, Izard, Fine & Trentacosta, 2002). Thus, children's emotion knowledge may impact children's academic competence indirectly through children's social skills and positive peer relationships.

Emotional Expressivity: What Are the Implications for School Success?

Children differ in their proneness to positive and negative emotions. That is, some children seem to be quite delighted when exposed to new experiences and people, whereas other children tend to be easily frustrated, upset, or fearful in a variety of situations. Children's general tendencies to express positive and/or negative emotions reflect their emotional expressivity. Emotional expressivity is thought to impact children's engagement in learning tasks. In particular, positive emotions, such as excitement and happiness, are thought to contribute to learning because such emotions are thought to contribute to children's tendencies to engage with people and activities. Thus, children who express positive emotions may be more curious and have the desire to explore (Fredrickson, 2001). On the other hand, the expression of negative emotions may limit children's engagement, may be disruptive, and may undermine children's learning. That is, children who are easily upset or frustrated may avoid challenging activities in the classroom.

Researchers have shown that children's positive affect is important to children's school success. One recent study showed that children's positive emotions in class positively predicted teacher-reported academic skills (Hernandez et al., 2016a). The researchers hypothesized that perhaps positive emotion in the classroom reflected enjoyment or positive interactions with others during classroom activities. On the other hand, positive emotion expressed during lunch/recess negatively predicted later academic success, which may reflect children's over-exuberance or intense excitement. Children who are overly positive during recess may undermine their self-control in class. Thus, the context for positive emotion seems to matter for children's school adjustment. Negative emotionality in both the classroom and at lunch/recess was negatively related to academic achievement (Denham et al., 2012).

Further, children's tendency to express more positive and/or negative emotions is likely to impact their relationships with teachers and peers. Children who express more positive emotions tend to show more empathy toward others' emotions and demonstrate fewer problem behaviors (Hernandez et al., 2015) and have better relationships with peers (Hernandez et al., 2016a, 2016b) and teachers (Diaz et al., 2015). On the other hand, young children's negative emotions have been linked to higher levels of problem behaviors and difficulties with peers (Eisenberg et al., 2001, 2005). In particular, both frequency and intensity of anger have been associated with problem behaviors in school-aged children, such as externalizing symptoms (Eisenberg et al., 2010).

Can Social-Emotional Skills Be Taught?

Researchers are beginning to seek evidence as to whether teaching children social and emotional skills may improve their academic readiness. There have been relatively few instructional programs designed to teach children social-emotional skills, and most programs have targeted a variety of social-emotional skills rather than specific or individual skills.

There is some evidence that a variety of school-based instructional programs that have been designed to teach social skills are effective in improving children's effortful regulation, behavior problems, and later academic achievement (Bierman et al., 2008; Diamond, Barnett, Thomas & Munro, 2007; Li-Grining et al., 2011). However, complexities in the impact of these programs need to be considered. For example, children's age, initial levels of regulatory skills, and proneness to negative emotions may be important considerations when determining whether the programs are effective. More than likely the programs are effective for some children, but not others. One could imagine that a child who is more "at risk" (i.e., who is prone to getting frustrated easily, who is unregulated, and who acts up) might benefit from these programs more than a child who doesn't have as much "room for improvement." Researchers must conduct more research to consider these complex issues.

Conclusions

How well children do in school is not only due to their ability to recognize letters and have a sense of numbers. Social and emotional behaviors highly impact their readiness for school. A primary goal for preschool and early elementary education should be to promote children's effortful control and emotion understanding, and to understand how individual differences in children's proneness to positive and negative emotionality may be important for children's academic success.

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