



The Importance of Self-Regulation for Children's School Success



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What is Self-Regulation?



- Self-regulation includes the conscious control of thoughts, feelings, and behavior (attention, working memory, and inhibitory control).
- Recent research focuses on how these processes work together to help children regulate their emotion, cognition, and behavior (Blair & Diamond, 2008; Eisenberg et al., 2010).
- Our research has focused on the integration of these cognitive processes in overt behavior (McClelland et al., 2007; McClelland et al., 2010; Ponitz et al., 2009).

A Classic Test of Self-Regulation

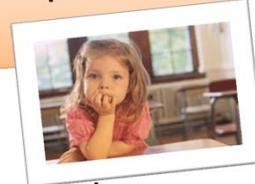


The Importance of Self-Regulation for Healthy Development

Self-regulation has emerged as a key predictor of a variety of outcomes including:

- **Social competence** in children (McClelland et al., 2007a; Valiente et al., 2008).
- **obesity** (Evans, Fuller-Rowell, & Doan, 2012)
- short and long-term **academic success** (Blair & Razza, 2007; McClelland et al., 2007b; McClelland et al., 2006)
 - In a recent study, children with strong self-regulation at age 4 had nearly *50% greater odds* of completing college by age 25 (McClelland, Acock, Piccinin, Rhea, & Stallings, in press).
- long-term **health** and educational outcomes, **wages**, and **employment** (Heckman, Stixrud, & Urzua, 2006; Moffitt et al., 2011)

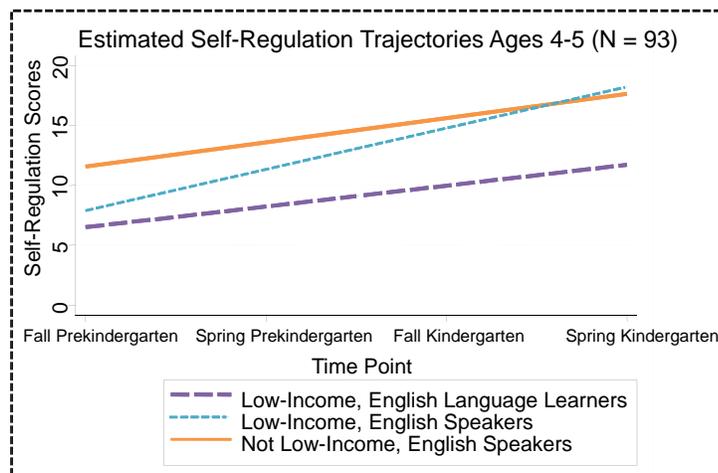
How Risk Can Impede the Development of Self-Regulation



- Children growing up in the context of risk are more likely to have poor self-regulation (Evans & Rosenbaum, 2008; Lengua, 2009; Sektnan et al., 2010)
- Risk factors such as poverty and ethnic minority status are related to lower self-regulation and achievement in young children (Evans & Rosenbaum, 2008; Lengua, 2009)
- Other research finds evidence for cumulative risk influencing children’s self-regulation (Wanless et al., 2011)

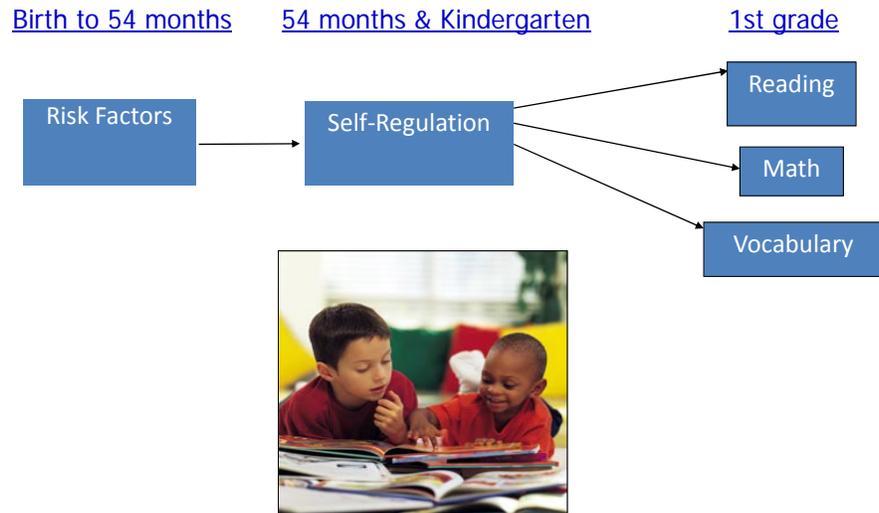
Cumulative Risk & Children’s Self-Regulation

(Wanless, McClelland, Acock, & Tominey, 2011)



Relations between Risk and Achievement

(Sektan, McClelland, Acock, & Morrison, 2010)



The Importance of Strong Self-Regulation for Children Experiencing Early Risk

- Accumulating research suggests that self-regulation is an important compensatory factor for children experiencing early risk

(Obradovic, 2010; Sektan, McClelland, Acock, & Morrison, 2010).



Patterns of Risk and Regulation in Achievement

- Even when children experienced risk, children with stronger self-regulation had stronger achievement than children with weaker self-regulation.
- For children with the same number of risk factors, those with stronger self-regulation did better academically than children with weaker self-regulation.



Strengthening Self-Regulation

Aspects of Parenting that Promote Child Self-Regulation:

- **Autonomy-support** (Bernier et al., 2010)
 - Encourage independence and problem-solving in children
- **Warmth and Sensitivity** (McClelland et al. 2003; Mistry et al., 2008; NICHD, 2003)
 - Warm and responsive parenting with appropriate limits
- **Family learning environment** (NICHD, 2003; Mistry et al., 2008; Razza et al., 2010)
 - Stimulating materials in the home
 - Read books to self and child
 - Limit TV and screen time
 - Engage in learning activities



Strengthening Self-Regulation

Self-Regulation Interventions:

- Activities that help children practice: stop, think, and then act, help children develop self-regulation

(Diamond & Lee, 2011; Tominey & McClelland, 2011).

- “Red Light, Purple Light”, “Freeze!” games
- Tools of the mind “Buddy Reading” and sociodramatic play.
- PATHS “Turtle Technique”



Strengthening Self-Regulation

Self-Regulation Interventions:

- A number of interventions have been shown to help improve children’s self-regulation and academic success (Bierman et al., 2008; Diamond & Lee, 2011; Raver et al., 2011).
- A recent study found that a preschool self-regulation intervention using classroom games predicted stronger self-regulation and gains in early achievement skills (Tominey & McClelland, 2011).



Strengthening Self-Regulation

- We are currently replicating this with 276 low-income children (3-5 years).

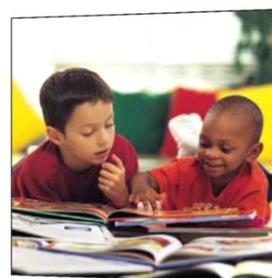
Our initial results indicate that:

- Children in the intervention experienced greater gains in self-regulation over the school year than children in the control group.
- Children in the intervention who were ELLs showed large gains in math skills over the school year.



Conclusions & Future Directions

- Children's self-regulation is an important predictor of healthy development and school success.
- Children growing up in the context of risk have significantly weaker self-regulation.
- Self-regulation is also an important compensatory factor for children experiencing early risk.
- Strengthening self-regulation is likely an effective way to help at-risk children be successful early in life.





Conclusions & Future Directions

- Interventions with children have shown strong results.
- Integrating research from interventions into early education and related programs may be a next step.
- Careful evaluation of these programs is also important.
- Improving communication and links between families and key stakeholders is critical for promoting school readiness in young children.

