

Early predictors of self-regulation in young children: individual- level and group-level processes

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- In recent years, children's early self-regulation has been of great interest to researchers from different areas of knowledge. Developing the ability to regulate one's thoughts, emotions and behaviors appears to represent a key aspect of children's school adjustment that has been associated with a wide range of academic and social outcomes (McClelland & Cameron, 2012).

- However, many young children experience problems with self-regulation. Several studies have documented that children who grow up under conditions of socioeconomic disadvantage perform less proficiently in measures of self-regulation than socially advantaged children (Mezzacappa, 2004; Noble, Norman, & Farah, 2005). It seems therefore extremely important to identify specific environmental aspects that can contribute to the development of self-regulation skills, especially for economically disadvantaged children.

- An emergent literature suggests that emotionally–close, sensitive, well–organized, and cognitively stimulating interactions in the classroom are related to young children’s development of social and academic outcomes (Burchinal, Peisner–Feinberg, Bryant, & Clifford, 2000; Hamre & Pianta, 2005; Mashburn et al., 2008). To date, however, the links between classroom process quality and children’s development of self–regulation have been somewhat overlooked.

- The current study bridges existing research on classroom process quality with the literature on self-regulation in early childhood and investigates whether different facets of teacher-child interactions at classroom-level and individual-level predict the development of self-regulation in a socially disadvantaged sample of preschool children.

Participants

- Participants in this study were 206 young children (52% boys; Mage = 4 years and 11 months) attending 47 preschool classrooms from socially disadvantaged neighborhoods in Portugal

Measures

- Teacher–child interactions at the group-level: Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008)
- The CLASS is an observational measure that assesses the social and emotional climate, as well as the instructional support provided in classrooms on three domains: Emotional support, Classroom Organization, and Instructional Support.

Measures

- The quality of teacher–child relationship at the individual-level: Student-Teacher-Relationship-Scale (STRS; Pianta, 2001).
- The STRS assesses teachers' perceptions of their relationships with a specific child on two domains: conflict (teacher's perceived negativity and discordance with the child) and closeness (teacher's perceived warmth and open communication with the child).

Measures

- Children's self-regulation was assessed at the beginning and end of the preschool year with Head-Toes-Knees-Shoulders task (HTKS; Ponitz et al., 2009). In this task, children are asked to do the opposite from what the instructor says (e.g., to touch their toes when told to touch their head and vice versa). This measure was designed to assess the integrative nature of self-regulation in an ecologically valid manner, since it covers aspects of self-regulation similar to the behaviors required from children in the classroom context (McClelland & Cameron, 2012; Ponitz et al., 2009).

Results

Descriptives and correlations among variables

	1	2	3	4	5	6	7	8	M	SD	Possible range
1. Age									59.60	8.53	
2. Sex ^a	-.08								0.50		
3. Observed self-regulation T1	.48**	.13							20.40	14.23	1-40
4. Vocabulary T1	.58**	-.00	.65**						34.04	.98	
5. Emotional/Organizational Support	.05	-.06	.08	.05					4.85	0.81	1-7
6. Instructional Support	.21	-.16	.08	.07	.64**				2.51	0.75	1-7
7. Closeness	.18*	.06	.25*	.31**	.04	-.13			4.26	0.65	1-5
8. Conflict	.18*	-.16*	.01	.04	-.02	.00	-.14		1.55	0.71	1-5
9. Observed self-regulation T2	.48**	.04	.63**	.56**	-.01	.08	.27**	-.04	27.36	12.27	1-40

Results

Summary of multilevel models predicting gains in self-regulation from dimensions of process quality

	Observed self-regulation			
	Model 1		Model 2	
	B	(S.E.)	B	(S.E.)
<i>vel-1</i>				
Observed self-regulation T1	.42**	(.07)	.45**	(.07)
Teacher-report conflict	.09	(.09)	.09	(.08)
Teacher-report closeness	.18*	(.07)	.16*	(.07)
<i>vel-2</i>				
Emot/organizational support	-.16	(.27)	-.16	(.26)
Instructional support	.26	(.26)	.25	(.24)
Instructional x self-regulation T1	-	-	-.28*	(.13)
Emo/orgaz x self-regulation T1	-	-	-.14	(.12)
Conflict x self-regulation T1	-	-	-.14	(.09)
Closeness x self-regulation T1	-	-	-.10	(.08)

Results

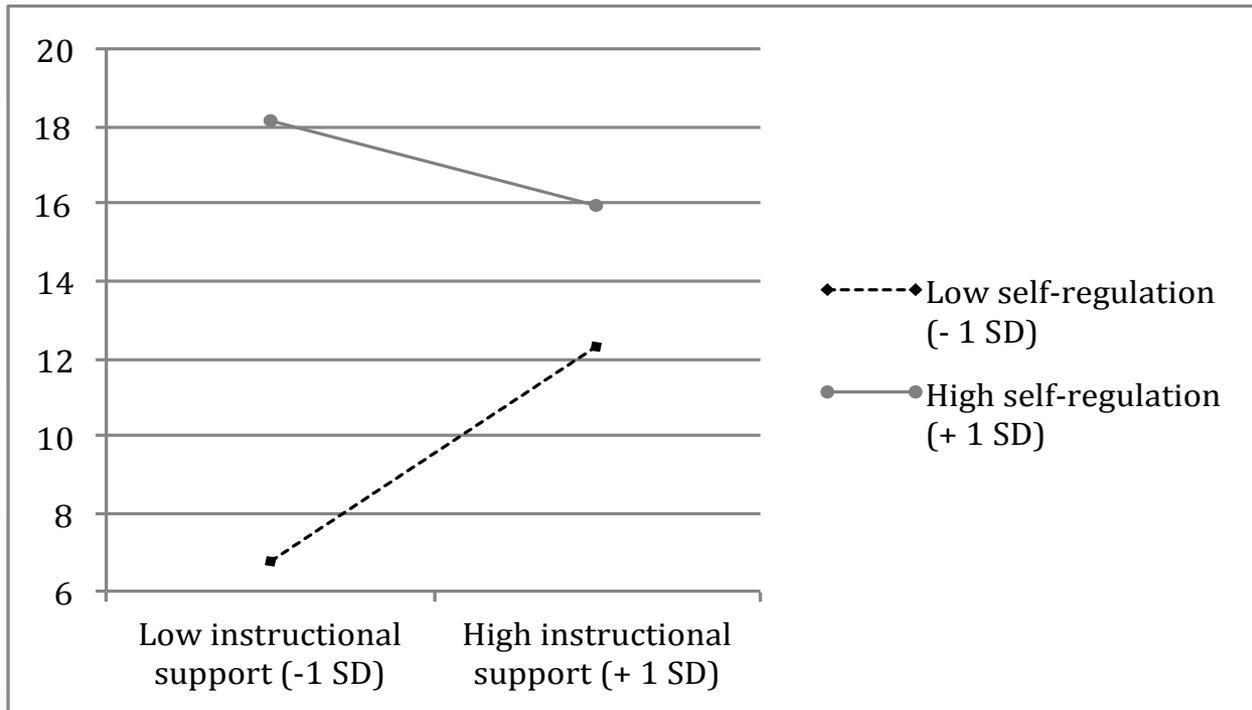


Figure 1. Moderating effects between instructional quality and children's observed self-regulation.

Discussion

- Findings from this study are in line with theoretical arguments that self-regulation is improved when children are involved in warm relationships with caring teachers (Blair & Diamond, 2008).

Discussion

- In addition, consistent with the notion that child initial self-regulation interacts with the learning environment to affect his or her development (Liew et al., 2010; Rudasill & Rimm-Kaufman, 2009), findings from the current study suggest that children with low levels of self-regulation skills at the beginning of the preschool year became more proficient in classrooms where the teacher promoted interactions that encouraged communication and reasoning, developed concepts coherently, and gave more feedback relevant to learning.

Discussion

- It has been suggested that engaging in thought-provoking activities, in which children are encouraged to communicate and use language to develop reasoning skills, might facilitate more complex thinking that requires planning and working memory (Fuhs et al., 2013). Our results are also consistent with arguments that intentional interactions that promote language and reasoning are necessary for enhancing learning, particularly for young children with academic difficulties (Pianta & Hamre, 2005).

Discussion

- By including quality assessments at dyadic and classroom levels, this study contributes to a more nuanced understanding of the processes underlying the development of children's self-regulation skills. The weak associations found between the levels of process quality confirm the need to consider both dyadic and classroom levels when investigating the effects of process quality.