Social–emotional competencies make the grade: Predicting academic success in early adolescence ☆

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ABSTRACT

The goals of this study were to longitudinally examine the association between social and emotional competence (SEC) and academic achievement in early adolescence, exploring the moderating role of gender in this relation. Using a short-term longitudinal design, self- and teacher-reported indicators of SEC were used to predict early adolescents' ($N = 461$, Mean age $= 12.02$ years, $SD = 0.41$, 47% female) achievement in math and reading on a standardized achievement test in grade 7. As hypothesized, teacher-reported SEC in sixth grade significantly predicted higher scores in math and reading on the standardized test in seventh grade. A significant interaction between self-reported SEC and gender in predicting reading scores indicated that SEC was a significant positive predictor for reading outcomes in boys only. Self-reported SEC was not significantly related to math achievement. Results are discussed in line with the literature and practical implications of the findings are discussed.

Understanding the factors that predict academic success in adolescence has been a central priority for parents, educators, and societal agencies interested in promoting positive development and deterring school failure in young people (Aronson, 2002; Caprara, Barabaranelli, Pastorelli, Bandura, & Zimbardo, 2000). In fact, academic success in school is an important indicator for overall positive development in early adolescence, and sets youth on a promising academic trajectory into late adolescence as well as predicting college attendance in early adulthood (Bond et al., 2007; Eccles, Vida, & Barber, 2004; Shim, Ryan, & Anderson, 2008). Although recent research suggests that academic success and social and emotional aspects of development are inextricably linked (e.g., Elias & Haynes, 2008; Elliott, Malecki, & Demaray, 2001), social and emotional competence (SEC) as it relates to academic development is still underrepresented in both empirical research and practice (Cohen, 2001, 2006).

A common public perception is that investing time into fostering social and emotional skills in the classroom will unnecessarily take time away from what is perceived to be the main goal of schooling — academic competence (Malecki & Elliot, 2002). This opinion has been widely criticized by researchers in the field of education and child development (e.g., DiPerna & Elliott, 2000; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Elias & Haynes, 2008; Zins, Weissberg, Wang, & Walberg, 2004). Instead, based on growing evidence that students' SEC and academic success are interrelated, researchers have urged that monitoring and ultimately fostering positive social and emotional development may be key to enhancing academic growth (see Greenberg et al., 2003; Hawkins, Kosterman, Catalano, Hill, & Abbott, 2008; Jones, Brown, & Aber, 2011; Zins et al., 2004). However, for this goal to be achieved, more high quality research – including longitudinal designs that investigate the role of social and emotional aspects of development in predicting academic outcomes for specific developmental periods – needs to be conducted (Hawkins et al., 2008; Malecki & Elliot, 2002; National Research Council, 2012; Welsh, Parke, Widaman, & O'Neil, 2001).

Although a number of previous studies have found a link between indicators of students' SEC in the classroom and academic success (e.g., Jones et al., 2011; Malecki & Elliot, 2002; Welsh et al., 2001; Wentzel, 1991a, 1991b), several gaps remain in the literature. First, past research has predominantly been based on single-informant designs, highlighting students' own perceptions of their social and emotional skills rather than considering multiple informants (e.g., Gil-Olarte Marquez, Palomera Martin, & Brackett, 2006; Izard et al., 2001; Jones et al., 2011; Seider, Gilbert, Novick, & Gomez, 2013). Second, a large number of previous studies have used grades assigned by

teachers as an indicator of academic achievement rather than more objective achievement indices obtained via standardized tests (e.g., Elias & Haynes, 2008; Welsh et al., 2001; Wentzel, 1991a). Whereas grades are a measure of academic achievement that can be obtained through teachers and school records fairly easily, their reliability may be limited given that grading criteria tend to differ among teachers (McMillan, 2001, 2003). Third, little research is available to address whether SEC relates to academic outcomes for boys and girls in similar ways.

Exploring the role of gender is critical because previous research has revealed overall gender differences in SEC among boys and girls. For instance, Elias and Haynes (2008) found that girls in third grade had significantly higher SEC scores as assessed with the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) than boys. Further research has indicated that adolescent girls tend to score higher on measures of social and emotional understanding in contrast to boys (e.g., Bosacki & Astington, 1999; Brackett, Mayer, & Warner, 2004; Jaffee & Hide, 2000; Welsh et al., 2001), and respond more prosocially than boys to hypothetical conflict scenarios (Rose & Asher, 1999). Moreover, adolescent girls have been rated by their peers as behaving in more socially and emotionally competent ways compared to boys (Sandstrom & Cillessen, 2003). Similarly, a number of studies have found that girls score higher on self-report measures of perspective taking and empathic concern than boys (Charbonneau & Nicol, 2002; see Eisenberg, Fabes, & Spinrad, 2006, for a review). Finally, previous research has indicated that teachers typically report higher levels of social competence for girls in contrast to boys (Ladd & Profilet, 1996). Taken together, it is critical to explicate the role of gender in more detail when investigating the manner in which social and emotional skills are associated with academic competence in order to gain further understanding as to how SEC may function in similar or different ways for adolescent boys and girls in predicting their academic achievement.

Addressing the outlined limitations, the goal of the present research was to assess the relation between early adolescents' SEC and academic outcomes longitudinally, utilizing a multi-informant design that included self- as well as teacher-reports of SEC. Academic outcomes in two domains – reading and math, drawn from standardized achievement assessments – were included to provide an objective measure of academic success. Last, we explored differences between boys and girls to determine the extent to which gender moderated the relation between SEC and academic achievement. Our study focused on the developmental period of early adolescence — a time during which a multitude of changes occur on social, cognitive, physiological levels (Steinberg, 2005; Stroud et al., 2009). It is during early adolescence that young people begin to shift their social focus away from the family and toward the peer group and other contexts in which they develop, such as the school context (Eccles & Roeser, 2009). Social and emotional skills are critical during this time because they contribute to positive functioning in the school and classroom context, help young people to form healthy relationships with peers and teachers, and can thus foster positive developmental pathways throughout adolescence (Graber & Brooks-Gunn, 1996; McLaughlin & Clarke, 2010; Wentzel, 2009).

Overall, although competencies in social and emotional domains provide a critical foundation for early adolescents' life skills, these competencies have traditionally received relatively little attention in research and practice in education (Zins et al., 2004). Researchers today emphasize that SEC is a separate core domain that students need to successfully master in order to graduate from high school and succeed in life (Durlak et al., 2011). A lack of SEC has been found to be negatively related to several indicators of success, including lower connectedness to school, less engagement, lower academic achievement, and a higher risk for school drop out (Appleton, Christenson, & Furlong, 2008; Elias & Haynes, 2008; Libbey, 2004; Wentzel, 1991b; Whitted, 2011; Zsolnai, 2002). Understanding the role of SEC in the school context is paramount because it can provide researchers and educators with

important indictors of students' social characteristics and functioning and may serve as a key to jointly promote social, emotional, and academic competencies in young people (Greenberg et al., 2003).

Defining school-related SEC

Defining important characteristics of SEC throughout development, we draw from theoretical and empirical research conducted by the Collaborative of Academic and Social and Emotional Learning (CASEL; see www.casel.org). CASEL is a leading collaborative of researchers and educators that advances theory, research, and practice in the field of social and emotional learning (SEL) and development. According to CASEL, SEL can be defined as "…the process of acquiring and effectively applying the knowledge, attitudes, and skills necessary to recognize and manage emotions; developing caring and concern for others; making responsible decisions; establishing positive relationships; and handling challenging situations adaptively" (Elias et al., 1997, p. 1). In the present study, we use the term SEC to refer to social and emotional competencies and skills that have been acquired in the past and can be assessed in early adolescents. We do not focus on the process of learning and acquiring SEC in the present study (for a review of studies conducted to evaluate SEL processes in intervention programs, see Durlak et al., 2011). We consider SEC closely related to SEL as it describes the outcome of the processes that foster SEL.

In general, socially and emotionally competent children and adolescents are commonly characterized as being able to understand, reflect on, and manage their own emotions and behaviors, solve problems successfully, and act appropriately in social situations at home, school, and in the community (e.g., Durlak et al., 2011; Elias et al., 1997). In the school context in particular, SEC relates to indicators of a positive learning context, such as cooperation with peers and social functioning in the classroom setting (January, Casey, & Paulson, 2011; Roseth, Johnson, & Johnson, 2008; Wentzel, 1993).

In the present study, we used two indicators of school-related SEC: Students' self-reports of social responsibility goals, and teachers' reports of students' social–emotional skills in the classroom. As suggested by Wentzel (1991a), socially responsible behavior reflects adherence to rules and norms in the classroom, and helps create an environment conducive to learning and instruction. Given that goals are a powerful motivator for behavior (Eccles & Wigfield, 2002), social responsibility goals – defined here as the degree to which students try to keep promises and commitments made to peers and to follow classroom rules – have been considered an important indicator for students' intentions to act in responsible, cooperative, and compliant ways that facilitate social acceptance and promote academic learning (Wentzel, 1991b, 1994). According to Eccles and Midgely (1989), goals to behave appropriately and responsibly are especially important during early adolescent development when teachers tend to spend much time with student behavior and classroom management challenges.

Pursuing social responsibility goals requires self-regulatory and self-management abilities, such as setting, planning, and pursuing goals, and can therefore be assumed to relate to academic learning and, ultimately, learning outcomes (Wentzel, 1991a). Self-management and self-regulation both have been considered critical markers of SEC (Buckner, Mezzacappa, & Beardslee, 2009; Garner, 2010). Given that self-management and self-regulation are involved in the regulation of emotions as well as behaviors, they are important for forming positive social interactions in the classroom as well as using effective learning strategies, and can thus be considered critical for academic achievement (Buckner et al., 2009; Garner, 2010; Garner & Waajid, 2012; Trentacosta & Shaw, 2009).

Social responsibility goals are based on students' intentions to act in socially responsible ways (Wentzel, 1994). However, students' own perspective of their SEC and their goals to be compliant and responsible in the classroom context may differ from how their goals manifest in behavior, and from how peers or teachers may perceive them. In fact, it is