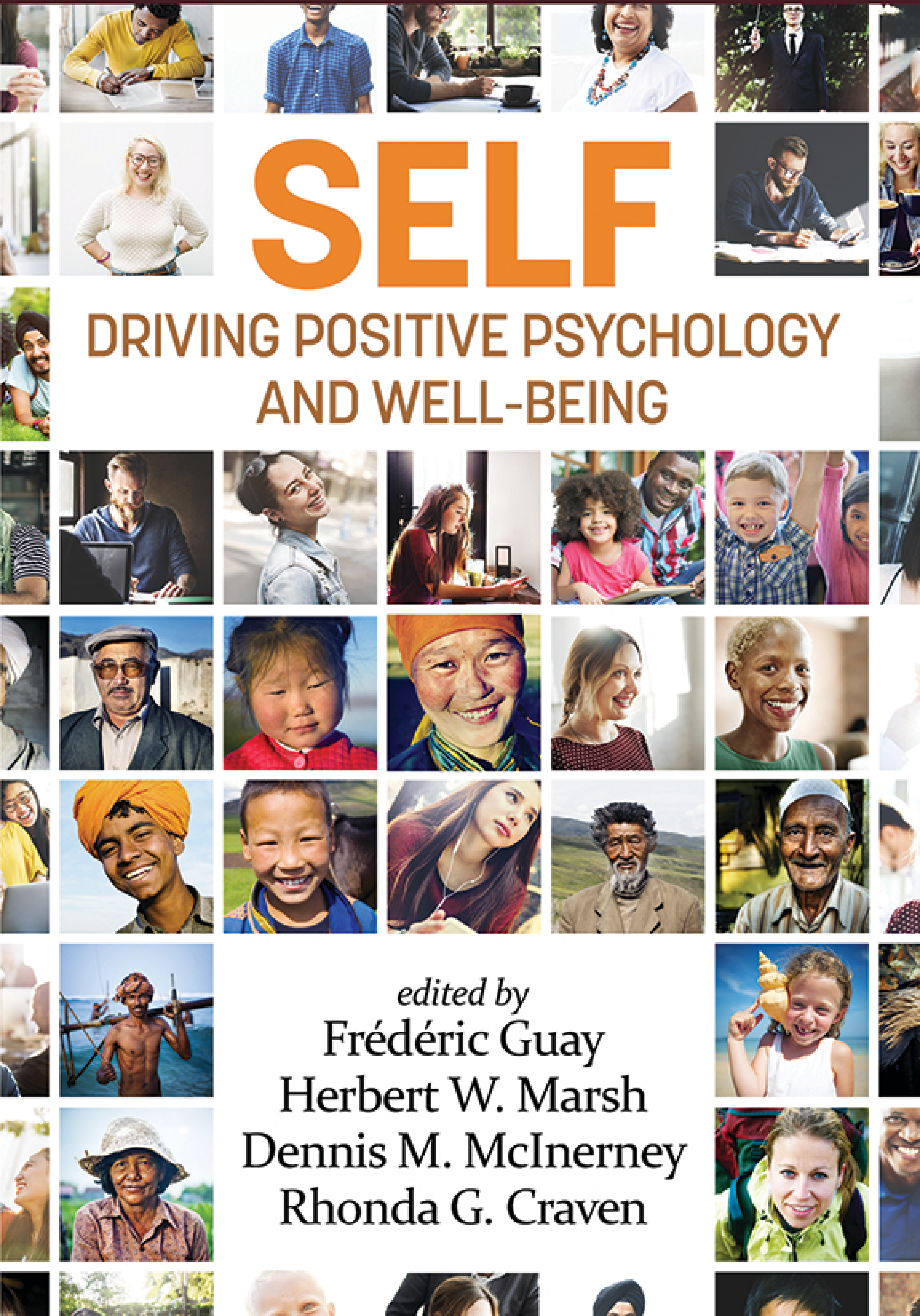

A VOLUME IN **INTERNATIONAL ADVANCES IN SELF RESEARCH**

SELF

DRIVING POSITIVE PSYCHOLOGY AND WELL-BEING

edited by

Frédéric Guay
Herbert W. Marsh
Dennis M. McInerney
Rhonda G. Craven

SELF—Driving Positive Psychology and Well-Being

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Rhonda G. Craven, Herbert Marsh, Dennis M. McInerney, *Series Editors*

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SELF—Driving Positive Psychology and Well-Being

edited by

Frédéric Guay
Université Laval and Oxford University

Herbert W. Marsh
Australian Catholic University

Dennis Michael McInerney
Australian Catholic University
and The Education University of Hong Kong

Rhonda Craven
Australian Catholic University

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PREFACE

Research on the Self relates to various phenomena including self-esteem, self-concept, self-verification, self-awareness, identity, self-efficacy, passion, autonomy, goals, etc., that are predictive of optimal functioning and well-being. Such a research endeavor is consistent with the positive psychology movement focusing on the scientific study of what makes people psychologically healthy, happy, and satisfied in their lives, as well as on their strengths and virtues. The positive psychology movement cultivates a sensible approach to optimal human functioning and well-being in various life contexts. Chapters in this volume will illustrate some of the best of the research on the interplay between the self and positive psychology, to show the potential of this research for transforming our societies. *Self—Driving Positive Psychology and Well-Being* thus provides a unique insight into self and its fundamental role for well-being. This is an important topic because different societies around the world are facing challenges that could be less optimal for their citizens' well-being such as poverty, health issues, school dropout, burnout, and marginalization. Trying to understand how the Self is shaped by the interpersonal and the societal milieus and how the self produce higher well-being is fundamental to increase our knowledge on well-being and to design intervention programs to help people who are the most vulnerable in our societies.

Articles in this issue address several important questions regarding the role of Self and well-being: Does perceived competence play a relevant role in at-risk children's academic, personal, and social well-being? Why students with the same potential react differently to challenges and obstacles they face? What are the implications of these reactions for their wellness? How

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interests in various activities develop and how they are related to positive feelings? How self-concept is shaped in various scientific disciplines such as biology, chemistry, and physics and what are the gender differences on self-concepts? How interests and perceived ability explain choices to pursue a career in science, technology, engineering, and mathematics? How culture affects people's capacity to maintain their interests and to pursue their effort to attain their important life goals? How perceptions of health risks and benefits, self-efficacy, and motivation affect healthy behaviors? How parents foster students' needs satisfaction and their well-being as well as how cultures, political environments, and economic systems affect these important psychological processes? What is the optimal path to achieve well-being? Should we focus on positive illusions, embrace relationships or look at our hidden characteristics? How children's values and abilities develop and what are the best interventions to foster these positive beliefs associated with well-being?

Self—Driving Positive Psychology and Well-Being presents a collection of ground-breaking chapters that advance our knowledge on how the self is shaped by the context and how the self is important for well-being and various positive psychological states. Chapters in this volume will stimulate new research that will advance our understanding of the role of self in well-being.

—Frederic Guay
Herbert W. Marsh
Dennis M. McInerney
Rhonda Craven

CHAPTER 1

THE ROLE OF PERCEIVED COMPETENCE IN THE LIVES OF CHILDREN WITH ADHD, EMOTIONAL AND BEHAVIORAL DISORDER, LEARNING DISABILITY, AND DEVELOPMENTAL DISABILITY

A Positive Psychology Perspective

Andrew J. Martin, Iva Strnadová, Susan C. O'Neill, and Therese M. Cumming
University of New South Wales

The past decade has witnessed a new wave of psychological theory and research emphasizing positive psychology and the need to focus on positive ways for individuals to get the most from life (e.g., Martin, 2016; Seligman

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& Csikszentmihalyi, 2000). Positive psychology is an overarching term referring to the study of positive traits, adaptive emotions, and enabling contexts (Seligman & Csikszentmihalyi, 2000; Seligman, Steen, Park, & Peterson, 2005). Positive psychology seeks to offer guidance and intervention to promote positive beliefs, emotions, and behaviors (Seligman et al., 2005). According to Peterson (2006; see also Peterson & Seligman, 2004), positive psychology is primarily focused on positive psychological attributes such as interests, talents, virtues, and character strengths; positive experiences such as flow and happiness; positive institutions such as families and schools; and, positive relationships among individuals. Positive emotions are theorized to have the potential to broaden individuals' cognitive-behavioral repertoire (Fredrickson, 2001; Fredrickson & Joiner, 2002). As a result, individuals are able to build strong and healthy personal resources that positively impact their academic and personal well-being (Bandura, 1997, 1999, 2001; Diener, Sandwik, & Pavot, 1991.

Self-perceptions of competence lie at the heart of this revolution (Bandura, 2008a, 2008b; Bruner, 1996; Hunter & Csikszentmihalyi, 2003; Marsh & Craven, 2006; Marsh, Martin, Yeung, & Craven, 2016). In this chapter, perceived competence (or competence beliefs) is broadly defined, encompassing self-efficacy, self-expectancies, self-concept, self-esteem, and self-worth. Perceived competence is widely accepted as a universal aspect of being human and central to understanding the quality of human existence (Bandura, 2008a, 2008b; Bruner, 1996; Harter, 1986; 1998, 2012; Marsh & Craven, 2006; Schunk & Pajares, 2005). Thus, an individual's sense of competence has become central to the field of positive psychology (Marsh & Craven, 2006; Marsh, Martin et al., 2016; Seligman & Csikszentmihalyi, 2000).

Perceived competence is a desirable end in itself and also an important means to other desirable ends (e.g., academic achievement, health, and well-being; Marsh, 2007). A bulk of research has investigated perceived competence among "typically" developing children. Relatively less systemic attention has been directed to "at-risk" children (Martin, Cumming, O'Neill, & Strnadová, 2017). As detailed in this chapter, these children experience social and academic challenges that could lead them to develop a negative view of themselves. This negative view could put them on risk pathways to failure in the social and academic domains. This chapter therefore explores the role and relevance of perceived competence in at-risk children's academic, personal, and social well-being. For each of four at-risk groups—children with attention-deficit/hyperactivity disorder (ADHD), emotional and behavioral disorder, learning disability, and developmental disability—the chapter identifies perceived competence factors that are critical to their academic and personal well-being. The theory, research, and practice described in the chapter clearly show that perceived competence plays a fundamental and positive role in at-risk children's well-being outcomes.

PERCEIVED COMPETENCE

Key Constructs

Perceived competence encompasses constructs such as self-efficacy, self-expectancies, self-concept, self-esteem, and self-worth (Covington, 2000; Liem & Martin, 2011; Marsh, 2007; Marsh, Martin et al., 2016; Martin, 2007, 2009). Self-efficacy and self-expectancies refer to a belief in one's capacity to accomplish a task or activity (Bandura, 2001; Law, Elliot, & Murayama, 2012; Schunk & Miller, 2002; Wigfield & Eccles, 2000). Self-efficacy and self-expectancies thus tend to be task and activity specific. Self-concept refers to conceptions of one's ability and capacity in a given domain (e.g., in mathematics or in one's social life). Self-esteem and self-worth refer to more global appraisals of self (Marsh, 2007; Marsh, Martin et al., 2016). Perceived competence impacts the tasks children choose to undertake, the functions required to perform those tasks, and the willingness and capacity to persist to task completion (Bandura, 2001; Marsh, 2007).

Importantly, psychoeducational practitioners play a vital role in promoting children's competence beliefs. For example, under social-cognitive theory, teachers instruct and model competence and provide opportunities for children to practice and apply skills and knowledge that further promotes a sense of competence (Bandura, 2001; Weissberg, Durlak, Domitrovich, & Gullotta, 2015). In turn, perceived competence impacts many academic outcomes in the forms of achievement, motivation, school enjoyment, and school completion (e.g., Bandura, 2001; Durlak, Domitrovich, Weissberg, & Gullotta, 2015; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Humphrey, 2013; Martin & Dowson, 2009; Rhoades, Warren, Domitrovich, & Greenberg, 2011).

Key Theories

Numerous psychoeducational theories centrally locate perceived competence in individuals' academic and personal well-being. Under social-cognitive theory, human agency is defined in terms of key personal attributes and salient socio-structural influences (Bandura, 2001). These personal and interpersonal factors have significant impacts on educational (and other) outcomes (Bandura, 1997, 2001). Personal agency is the domain under which perceived competence is relevant. Self-efficacy, in particular, is seen as the dominant construct in this conceptual space. Other theories identify factors that operate in conjunction with perceived competence to yield desirable outcomes. One salient perspective is expectancy-value theory (Wigfield & Eccles, 2000). Here, positive expectations regarding a

task or challenge (based on one's perceived competence) alongside one's valuing of that task or challenge lead to greater motivation and enhanced achievement (Martin, 2007, 2009; Wigfield & Eccles, 2000). Need achievement and self-worth motivation theories characterize students in terms of perceived competence (Covington, 2000) and their motivation to protect their competence image and self-worth (Martin & Marsh, 2003). Goal theory seeks to explain the reasons students have for their achievement-related behaviors and this too has perceived competence relevance. The "classic" dichotomous goal framework, for example, focuses on mastery and performance goals, with the latter goals reflecting a drive to demonstrate relative competence (Elliot, 2005). Self-determination theory (SDT; Deci & Ryan, 2012; Ryan & Deci, 2010) emphasizes individuals' psychological needs and the importance of meeting these needs for optimal well-being (Reeve, 2012). Three needs are particularly key: the need for autonomy, the need for relatedness, and (of particular relevance to this chapter) the need for competence.

AT-RISK CHILDREN AND PERCEIVED COMPETENCE

Most of the theory and research into perceived competence has been conducted among "typically" developing children. There has been far less attention directed to children who are "at-risk" (Martin et al., 2017). This chapter explores the role and relevance of perceived competence for each of four at-risk groups: children with attention-deficit/hyperactivity disorder (ADHD), emotional and behavioral disorder, learning disability, or developmental disability.

Attention-Deficit/Hyperactivity Disorder (ADHD)

Definitions and Descriptions

ADHD is defined as "a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development" (American Psychiatric Association, 2013, p. 59). About 3–5% of children are diagnosed with ADHD, with approximately three times as many males as females (Purdie, Hattie, & Carroll, 2002). Up to 70% of cases are considered to persist into adolescence and then adulthood (Barkley, 2006). Major psychological models of ADHD emphasize dysfunctions in self-regulation and executive processing (e.g., Barkley, 2006). Thus, for example, children with ADHD have significant difficulties with planning, task switching, problem solving, organizing, impulse control, inhibition, and working memory (Barkley, 2006; Burns & Martin, 2014; Pennington & Ozonoff, 1996).

There are well documented problematic outcomes experienced by children with ADHD (see Barkley, 2006; Purdie et al., 2002). The executive functions disrupted by ADHD are crucial for children to meet the many demands in their academic life (Pennington & Ozonoff, 1996). As a result, children with ADHD are an academically at-risk population (Burns & Martin, 2014; Martin, 2013; Martin & Burns, 2014). In line with this, children with ADHD have increased risk of grade retention, lower academic achievement, and higher rates of school exclusion (Barkley, 2006; Biederman, Monuteaux, Doyle, Seidman, Wilens, Ferrero, Morgan, & Faraone, 2004; Martin, 2014b). Researchers have sought to identify factors and processes that may reduce the negative academic and personal well-being outcomes in the lives of children with ADHD. In this chapter, we explore the role of perceived competence as one such factor (see also Martin, 2012a; Martin, Burns, & Collie, 2016).

ADHD and Perceived Competence

With respect to competence beliefs, researchers have found that children with ADHD may perceive themselves and their capacities in more negative terms than children without ADHD. For example, Dumas and Pelletier (1999) found that children with ADHD reported lower levels of perceived scholastic competence. Similarly, Tabassam and Grainger (2002) found children with ADHD were lower in self-efficacy when compared with non-ADHD peers. There are also deficits in perceived competence in non-academic and general self-domains. Ostrander and colleagues (Ostrander, Crystal, & August, 2006), for example, found children with ADHD to be lower in perceived social competence. Similar findings have emerged for university/college students with ADHD (Shaw-Zirt, Popali-Lehane, Chaplin, & Bergman, 2005). In terms of domain general perceived competence, Edbom and colleagues found that children with high scores on ADHD symptoms also scored low on general self-esteem factors (Edbom, Granlund, Lichtenstein, & Larsson, 2008; see also Slomkowski, Klein, & Mannuzza, 1995; Treuting & Hinshaw, 2001). Similarly, lower self-esteem is reported by adolescents who had been diagnosed with ADHD in childhood (Slomkowski et al., 1995)—a finding consistent with Treuting and Hinshaw (2001). Indeed, Weiss and Hechtman (1986) concluded that the actual symptoms of ADHD are less problematic than the psychosocial problems in childhood and adolescence resulting from the ADHD symptoms. It may also be the case that the effects of ADHD on competence beliefs is moderated or mediated by some factors. For example, some have suggested the effectiveness of medication to manage symptoms may be associated with a greater likelihood of efficacious academic outcomes and positive self-concepts (Martin, 2012a). Children with ADHD also experience interpersonal difficulties with teachers, peers, and parents/carers (e.g., Kendall, 2000; Krueger &

Kendall, 2001) that can lead to a cycle of problematic interactions that are not conducive to optimal competence beliefs (Martin, 2012a).

The research reported above shows that children with ADHD experience negative competence beliefs (but see Hoza, Gerdes, Hinshaw et al., 2004; Hoza, Pelham, Dobbs, Owens, & Pillow, 2002). Without question, this is an undesirable end in itself. However, to the extent that these factors are also significantly associated with academic outcomes, then children with ADHD are potentially placed at even greater disadvantage. The limited research available in fact suggests these factors are significantly associated with outcomes for children with ADHD.

For example, Martin, Burns, and Collie (2016) recently examined the influence of self-efficacy on the literacy and numeracy achievement of children with ADHD (and their non-ADHD peers). They found that high self-efficacy was consistently associated with higher academic achievement—with the positive effects of self-efficacy significantly stronger for children with ADHD than for children without ADHD. Importantly, the positive effects of self-efficacy remained significant after controlling for various sociodemographic covariates.

On the one hand, this finding was encouraging in that the association between self-efficacy and achievement for children with ADHD was significant—indeed, far more sizeable than for children without ADHD. On the other hand, in that same study, children with ADHD were also significantly lower in self-efficacy. This suggests that the strong connection between self-efficacy and achievement for children with ADHD works against them: being lower in self-efficacy translates into being lower in achievement. On a positive note, educational intervention targeting self-efficacy improvements will have a strong likelihood of yielding notable achievement gains. Some potential practical directions are discussed later in the chapter.

In explaining lower levels of perceived competence among children with ADHD, some researchers have pointed to their early school experiences as being particularly influential. For example, Pisecco, Wristers, Swank, Silva, and Baker (2001) described how early experiences create a foundation for children's competence beliefs that then impact their academic development through school. Thus, for example, Chapman (1988) suggested a self-perpetuating cycle with negative self-conceptions leading to lower academic achievement, non-completion, and then perceptions of helplessness. From an interpersonal perspective, Krueger and Kendall (2001) reported that challenging behaviors by students with ADHD make it difficult for others to respond in positive ways, adversely affecting the development of the child's emerging self. From a developmental perspective, ADHD emerges at a time when conceptions of self are crystallizing (Harter, 1993) and so early negative experiences at this time can have a particularly negative impact on competence beliefs. From a motivational perspective, Douglas (1983, 1985) has

suggested that students with ADHD experience more task-relevant frustration and exert relatively less effort to solve difficult tasks (see also Milich & Greenwell, 1991; Milich & Okazaki, 1991). They therefore solve fewer problems, progressively cutting themselves off from academic success that is a basis for self-efficacy (Martin, 2007, 2010).

Emotional and Behavioral Disorder (EBD)

Definitions and Descriptions

The Individuals with Disabilities Education Act (U.S. Department of Education, 2004, CFR §300.8) describes EBD as

> a condition exhibiting one or more of the following characteristics to a marked degree, over a relatively extended period of time, and that adversely affects a child's educational performance: (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; (e) a tendency to develop physical symptoms or fears associated with personal or school problems. (para. 4)

Interestingly, EBD is not formally identified within the DSM-V (American Psychiatric Association, 2013). The DSM-V does, however, include conditions such as conduct disorder and oppositional defiance disorder. There is thus significant variability in how this disorder is defined and this definition can depend on context and organizational/institutional perspectives (Kauffman, 2015).

Despite the variability in definition, authorities in various educational jurisdictions (including in Australia) use EBD terminology when designating students exhibiting emotional and behavioral issues to segregated and semi-segregated schools. Indeed, Graham and Sweller (2010) showed that designated places for students with EBD rose dramatically in Australia from 1997–2007, suggesting they may start off in the "mainstream," but move into a segregated setting for a good part of their education.

There are many behaviors and emotions associated with EBD. They can be internalizing (e.g., anxiety) or externalizing (e.g., poor behavior). The prevalence of EBD in the school population is considered low. However, children with EBD often have comorbid diagnoses of LD, ADHD, and cognitive impairments (Hallahan, Kauffman, & Pullen, 2015). These "internal" comorbidities can occur alongside external and/or exacerbating factors such as dysfunctional family backgrounds (Kauffman & Landrum, 2013); Kauffman (2015) estimates just under 1%. However, he recognized

that this is likely an underestimate. Bullis and Cheney (1999) put the prevalence higher at up to 4% of the school population.

Children with EBD experience problems with skills and dispositions that significantly impact their academic success (Margerison, 1996). These children are often disengaged, produce little work, and demonstrate limited academic gain (Siperstein, Wiley, & Forness, 2011). It is also the case that due to their sometimes aggressive and disruptive behaviors, it can be difficult to provide the intensive academic interventions needed to assist them. This, coupled with their low academic motivation, further entrenches the difficulties educators have in assisting these children (Sutherland, Lewis-Plamer, Stichter, & Morgan, 2008). Indeed, these issues also impact the development of peer, teacher, and family relationships (Kauffman & Landrum, 2013) that are critical for the social and emotional support needed for optimal academic development. As a result of all these challenges, children with EBD can experience very poor life outcomes in terms of low school completion rates (Kauffman, 2015), high levels of unemployment, and increasingly frequent involvement with the law (Griller Clark & Unruh, 2010; Wagner & Newman, 2015).

Emotional and Behavioral Disorder and Perceived Competence

Lund (1986) found that children with EBD have significantly lower levels of perceived competence than their peers without disabilities. Leary and colleagues (1995) theorized that low perceived competence is in part a result of ongoing peer rejection, leading to problematic behaviors such as delinquency and aggression, in attempts to be accepted. Indeed, children with EBD are rated significantly lower on sociometric measures of social acceptance than peers without EBD (Sabornie, 1987; Sabornie & Kauffman, 1985). It has also been suggested that ongoing comparisons with non-EBD peers creates a problematic frame of reference that drives down the perceived competence of students with EBD (see also Fulk, Brigham, & Lohman, 1998). It is thus the case that children with EBD demonstrate a somewhat negative profile with respect to perceived competence.

Importantly, however, the problems of perceived competence experienced by children with EBD may be moderated by their educational environment and their stage of development. As noted above, children with EBD are more likely than children with other disabilities to be educated in segregated settings (Graham & Sweller, 2010). It has also been suggested that for some children with EBD, these settings can positively impact their competence beliefs. Fulk, Brigham, and Lohman (1998) found that children with EBD educated in segregated settings had more positive views of themselves and more positive orientations to school. This was attributed to the fact these students received more intensive support in segregated

settings. It was also seen as due to the absence of higher performing peers with whom they would otherwise be unfavorably compared.

However, as the students move into later adolescence, some researchers suggest a decline in perceived competence in segregated settings (Montague, Enders, Dietz, Dixon, & Morrison Cavendish, 2008). It has been contended that this shift in perceived competence occurs as students realize they may not attain a recognized "mainstream" educational qualification, leading to limited post-school options (for declines on other factors for these students, see Carter, Trainor, Owens, Swedeen, & Sun, 2010; Morrison Cavendish, 2006). It is evident, then, that perceived competence for children with EBD may be moderated by the level of educational segregation and also their stage of development (in adolescence).

It is also noteworthy that the perceived competence of significant others can be impacted by the challenges presented by children with EBD. For example, teachers of children with EBD have reported lower levels of self-efficacy (Jones & Chronis-Tuscano, 2008). In turn, these low levels of perceived competence affect how teachers interact with, teach, and persist in supporting these children (Cook, 2004; Poulou & Norwich, 2002), including a decline in the quality of interpersonal relationships (Mihalas, Morse, Allsopp, & Alvarez McHatton, 2009).

In similar vein, parents of children with EBD report that their children's mental health problems impact their own mental health, including self-esteem (Sawyer, Whaites, Rey, Hazell, Graetz, & Baghurst, 2002). The strain this places on parents (Taylor-Richardson, Helfinger, & Brown, 2006) negatively impacts parent-child relationships and their child's self-esteem. Taken together, the problems and challenges experienced by children with EBD have negative implications for their own and significant others' personal well-being and perceived competence.

Learning Disability (LD)

Definitions and Descriptions

The term LD originated in the United States and tends to reflect a medical orientation to defining and considering learning problems. In the United States, specific learning disability is defined under the Individuals with Disabilities Education Improvement Act (U.S. Department of Education, 2004, Sec. 300.8 (10)) as:

> a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. This term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmen-

> tal aphasia. This term does not include children who have learning problems that are primarily the result of visual, hearing, or motor disabilities; mental retardation; or environmental, cultural or economic disadvantage. (para. 10)

Other countries, such as Canada, tend to approach LD from a more educational perspective on learning challenges. For example, the Learning Disabilities Association of Canada (2015) defines LD in terms of:

> . . . a number of disorders which may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. As such, learning disabilities are distinct from global intellectual deficiency. (para. 2)

In other contexts, learning disabilities are not formally recognized as a specific category of disability. In Australia, for example, the term "learning difficulties" is often used in schools.

It is important to recognize that not every child with LD exhibits all features of the disability. Although the majority of children with LD will experience difficulties in learning, there will be many who also experience significant difficulties with executive functioning and self-regulation, which in turn negatively impact their personal well-being, including their perceived competence (Cortiella & Horowitz, 2014).

Compared to "typically" developing peers, children with LD experience significantly poorer academic outcomes. For example, it has been suggested that about 25% of high school students with LD earn "average" to "above average" grades in reading and mathematics, compared with 50% of children with no identified disability. At the other end of the achievement spectrum, whereas approximately 25% of children with LD earn "very below average" grades, less than 5% of children in the general population achieve the same results (Cortiella & Horowitz, 2014).

It is also the case that around half of all high school students with LD have experienced some form of disciplinary action such as suspension or expulsion. In addition, these children have higher dropout rates. Beyond school, many of these young people go on to experience employment difficulties and poor social and community engagement (Johnson, 1995).

Importantly, researchers have made the point that these difficulties are not typically due to low cognitive/intellectual ability. Indeed, children with LD often exhibit substantial discrepancy between their achievement (that tends to be low) and their cognitive/intellectual capacity (that is higher) (Vaughn & Fuchs, 2003). True, the cognitive discrepancy method of defining LD has been debated; however, there is often agreement that these discrepancies do exist. Thus, although they do not necessarily define LD, these discrepancies are important for understanding LD and potentially

for benchmarking development if educational interventions are applied (e.g., Callinan, Cunningham, & Theiler, 2013).

Learning Disability and Perceived Competence

With respect to perceived competence, it is well-established that children with LD demonstrate difficulties particular to their condition. Thus, for example, these children will tend to experience lower levels of academic self-efficacy and general self-esteem in comparison to their peers with no identified disability (Klassen & Lynch, 2007). Interestingly, however, there are some children with LD who lack the metacognitive skills necessary for a realistic assessment of their abilities, leading to them being overconfident in their capacity to complete specific tasks. The results of this can be that they are underprepared for tests and assessments, further negatively impacting their academic outcomes (Klassen, 2008; Klassen & Lynch, 2007). Indeed, this suggests there may be some factors that moderate (in this case, metacognition) the effects of LD on perceived competence.

Children with LD also experience deficits in perceived social competence. By some estimates, up to 80% of children with LD are rejected by typically achieving peers (Kavale & Forness, 1996). Similarly, Estell and colleagues (2008) found that these children were viewed as lower in social status by their friends. Compounding this is the fact that children with LD are often aware of their social difficulties and isolation, self-reporting deficits in social competence (Kavale & Forness, 1996). Thus, the effects of LD on social competence beliefs are very much affected by social processes that stem from their disability.

In summary, because children with LD experience deficits in perceived competence, it is problematic that their low levels of perceived competence affect their academic (and other) outcomes (Goldberg, Higgins, Raskind, & Herman, 2003; Lackaye & Margalit, 2006; Madaus, 2006a, 2006b; Zheng, Erickson, Kingston, & Noonan, 2012). It is therefore vital that educational intervention seeking to improve these children's academic development also attend to their perceived competence.

Developmental Disability

Definitions and Descriptions

Developmental disability is often used as an umbrella term for intellectual disability (ID), and for some researchers and practitioners, autism spectrum disorder (ASD; Ashman & Elkins, 2009). Although ID and ASD are different conditions, it is not uncommon for people with ASD to also have ID (American Psychiatric Association, 2013). The focus of this chapter is on ID, but ASD is referenced where appropriate. Terms for ID can vary,

depending on context. For example, the DSM-V refers to the disability as "intellectual developmental disorder" (and formerly as "mental retardation"). In the United Kingdom, it is referred to as "learning disability."

Notwithstanding these differences, in the main, ID is seen as a condition "with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains" (American Psychiatric Association, 2013, p. 33). Conceptual (or, academic) skills include: problem solving, abstract thinking, judgment in novel situations, reading, and numeracy. Social skills comprise: interpersonal communication skills, empathy, and friendship abilities. Practical skills include: self-management of behaviors and money management (American Psychiatric Association, 2013). ID prevalence tends to be estimated at 1% of the population (American Psychiatric Association, 2013; see also the American Association on Intellectual and Developmental Disabilities, 2016). Not surprisingly, the effect of these deficits on children's academic outcomes is not positive. Given the strong connection between academic outcomes and personal well-being outcomes (Noble & McGrath, 2014), these children's academic struggles further entrench their lower sense of efficacy and worth.

Developmental Disability and Perceived Competence

Research into competence beliefs among children with ID is scarce or inconclusive. Žic and Igrić (2001) found that the social self-concept of children with ID was lower than that of matched peers. Jones' (2012) research demonstrated that self-perceptions of adolescents with intellectual and developmental disabilities were grounded in a deficit model of disability. Jones' study also highlighted the importance of adolescents' perceptions of parental support when it comes to self-concept and self-worth. Thus, social support may be a moderator of the effects of intellectual and developmental disabilities on perceived competence. Wei and Marder (2012) examined perceived competence constructs in a population of 3,500 students with disabilities. Interestingly, the findings demonstrated that students with ASD had significantly lower self-confidence than students with learning disabilities. As with learning disability, a major source of lower perceived social competence seems to be the rejection and social isolation children experience. Because children with developmental disability often experience loneliness and social rejection (Jones & Frederickson, 2010; Lasgaard, Nielsen, Eriksen, & Goossens, 2010; Locke, Ishijima, Kasari, & London, 2010) they are at heightened risk of lower social competence beliefs. Thus, there are processes that stem from developmental disability that affect social competence beliefs. It may also be the case that some effects are moderated by gender, with some children more likely and some children less likely to suffer deficits in perceived competence. For example, research has

found that females with ID report a more positive self-concept than males (Begley, 1999).

It has also been the case that somewhat more positive self-concepts have been identified in prior research. Work by Begley (1999) among children with Down syndrome and by Huck, Kemp, and Carter (2010) among children with ID has indicated positive self-concepts. Research by Varsamis and Agaliotis (2011) into the physical self-concept of students with intellectual, multiple, and physical disabilities found that students with intellectual disabilities presented a positive physical self-concept.

Encouragingly, there are evidence-based practices in the area of social skills development—such as video-modelling and self-management—that have supported these children's social skills (Odom, Collet-Klingenberg, Rogers, & Halton, 2010). Given these promising findings, Danker, Strnadová, and Cumming (2016) recommended that schools provide resources and programs to support children with developmental disability in order to enhance their well-being, including their perceived competence. They also highlighted a critical need for teacher professional learning to promote the perceived competence of these children and allow for better understanding and acceptance of these children's diversity.

IMPLICATIONS FOR PRACTICE

It is clear that competence beliefs impact the academic and personal well-being outcomes of academically at-risk children. Research and theory provide direction to assist practitioners (teachers, counsellors, psychologists, etc.) in targeting and enhancing perceived competence in these children's development. In terms of cognitive intervention, it has been suggested that practitioners address children's negative thinking about themselves and their capacities (Martin, 2003, 2005, 2010). As noted above, through academic and social difficulties, at-risk children can develop quite negative self-beliefs that need to be challenged to promote a better sense of self.

From an instructional perspective, it can be helpful to adjust lessons and tasks to better ensure children can experience success (Martin & Burns, 2014). Too often, academic tasks are beyond the proximal capacity of many children. Better scaffolding of work might help these students initiate and progress through work. For example, preparing a template of major components of a task to be completed is one way to scaffold them through the task (e.g., a formatted science practicum report into which students enter their information). Another way to better ensure access to academic competence is through the "chunking" strategy. Here, tasks and activities are disaggregated into manageable components (or "chunks") to enhance efficacy through the task—and, ultimately completion (Martin & Burns,

2014). An example of this would be to talk through each part of an activity (e.g., an essay) to be completed and identify major points of task completion (e.g., prepare an essay plan, do an initial search for information, summarize information under main headings etc.) within that activity. In similar vein, it is helpful to differentiate and individualize learning activities to suit learner needs (Schunk & Miller, 2002). For example, different students might be permitted to submit their assignment in different modes (e.g., a presentation, an essay, a portfolio).

These instructional approaches are supported by the widely implemented Universal Design for Learning (UDL) framework. Harnessing educational psychology, neuroscience, and cognitive psychology, UDL guides the development of flexible learning environments that can accommodate individual learning differences. Through the multiple means of representation, engagement, and expression, UDL is about structuring instruction so that it is accessible for all children (CAST, 2011). Although this framework is recommended for all children, it is considered especially effective for academically at-risk children (Field, Sarver, & Shaw, 2003).

Another approach is to improve children's goal-setting skills (Locke & Latham, 2002; Martin, 2012b). Goals enhance the probability of success and success is a basis for competence beliefs (Bandura, 2001). Importantly, the quality of goal-setting is critical. Goals that are specific and challenging tend to be most effective (Locke & Latham, 2002). One particularly promising line of research has focused on personal best (PB) goals (Martin, 2006; Martin & Elliot, 2016a, 2016b; Martin & Liem, 2010). PB goals are specific, challenging, and competitively self-referenced targets that match or exceed a previous level of effort or performance. PB goals may have particular merit for at-risk students because they represent a standard that is attainable. In being attainable there is heightened opportunity for success and thus perceived competence. Notably, a study of PB goals among children with ADHD found these goals to be substantially connected to their engagement and achievement (Martin, 2012b).

It is also the case that at-risk students are more likely to experience academic adversity and this adversity represents a significant threat to self-worth (Martin, 2014a, 2014b). This being the case, building academic buoyancy and academic resilience is important as threats to self-efficacy arise (Martin & Marsh, 2008, 2009; Tarbetsky, Martin, & Collie, 2017). Suggestions by Morales (2000), that we adapt to at-risk students here, include teaching these children how to (a) better recognize challenge when it presents in their academic life; (b) draw on protective factors that have been suggested to them; (c) make good use of these protective factors to deal with the challenge; and (d) sustain or refine how they use these protective factors as future challenges arise (see also Martin et al., 2017). Thus, for example, if a child is confronted with academic failure,

they would be encouraged to firstly recognize that this needs special and particular attention. Then they would be encouraged to draw on support that might help them overcome academic failure next time—such as a supportive teacher, a counsellor, or a helpful peer. They would be advised to implement the help their source of support has provided. Finally, as they implement the help they have received, they are encouraged to take notice of what does and does not work in order to refine their approach to future academic challenges.

This review has also highlighted perceived social competence and also the impacts that problematic relationships can have on at-risk children's competence beliefs. Thus, while addressing children's beliefs directly, there may also be value in promoting positive interpersonal relationships in their lives. Social skills training is one approach, explicitly teaching children how to get along with others and how to be more mindful of social cues that help them interact with others (e.g., Hoza, Waschbusch, Pelham, Molina, & Milich 2000; Odom et al., 2010). As noted earlier, video-modelling and self-management can be effective approaches to social skills training (Odom et al., 2010). Research findings also identified the importance of educators and parents/caregivers being patient and tolerant as they work with academically at-risk students (Sherman, Rasmussen, & Baydala, 2008). These children do not always progress through the work at a brisk pace, they do not always understand concepts or procedures the first time they hear them, they can be easily distracted or disengaged, and they may not meet with success early in the intervention process. In all such instances, patience and tolerance by the practitioner will greatly assist these students' capacity to persevere in the face of their challenges. In this way, children's sense of self remains positive as they interact with significant others.

CONCLUSION

The past decade has witnessed a revolution in theory and research emphasizing positive psychology. Perceived competence lies at the heart of this revolution. Most theory and research has investigated perceived competence among "typically" developing children. There has been less attention given to "at-risk" children. Accordingly, for children with ADHD, emotional and behavioral disorder, learning disability or developmental disability, we have identified numerous factors and processes relevant to perceived competence that hold significant implications for their academic and personal well-being. The chapter has also identified various practices that may promote at-risk children's perceived competence. Taken together, the theory, research, and practice described herein clearly show that perceived

competence plays a fundamental and positive role in at-risk children's well-being at school—and beyond.

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AUTHOR NOTE

Requests for further information about this chapter can be made to Professor Andrew J. Martin, School of Education, University of New South Wales, NSW 2052, AUSTRALIA. E-Mail: andrew.martin@unsw.edu.au. Phone: +61 2 9385 1952. Fax: +61 2 9385 1946.

Contact Details:

Scientia Professor Andrew J. Martin, School of Education, University of New South Wales, NSW 2052, AUSTRALIA. E-Mail: andrew.martin@unsw.edu.au.

Associate Professor Iva Strnadová, School of Education, University of New South Wales, NSW 2052, AUSTRALIA. E-Mail: i.strnadova@unsw.edu.au.

Dr Susan C. O'Neill, School of Education, University of New South Wales, NSW 2052, AUSTRALIA. E-Mail: sue.oneill@unsw.edu.au.

Associate Professor Therese M. Cumming, School of Education, University of New South Wales, NSW 2052, AUSTRALIA. E-Mail: t.cumming@unsw.edu.au.

REFERENCES

American Association on Intellectual and Developmental Disabilities (AAIDD). (2016). *Intellectual disability: Definition, classification, and systems of support* (11th ed.). Washington, DC: AAIDD.

American Psychiatric Association (APA). (2013). *Diagnostic and statistical manual of mental disorders* (DSM-5). Washington, DC: Author.

Ashman, A., & Elkins, J. (2009). *Education for inclusion and diversity.* Frenchs Forest, Australia: Pearson.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: Freeman & Co.

Bandura, A. (1999). A social cognitive theory of personality. In L. Pervin & O. John (Eds.), *Handbook of personality* (2nd ed., pp. 154—196). New York, NY: Guilford Publications.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1–26. http://dx.doi.org/10.1146/annurev.psych.52.1.1

Bandura, A. (2008a). An agentic perspective on positive psychology. In S. J. Lopez (Ed.), *Positive psychology: Exploring the best in people. Vol. 1: Discovering human strengths* (pp. 167–196). Westport, CT: Praeger/Greenwood.

Bandura, A. (2008b). Toward an agentic theory of the self. In H. Marsh, R. G. Craven, & D. M. McInerney (Eds.), *Advances in self research, Vol. 3: Self-processes, learning, and enabling human potential* (pp. 15–49). Charlotte, NC: Information Age.

Barkley, R. A. (2006). A theory of ADHD. In R. A. Barkley (Ed)., *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment* (3rd ed., pp. 297–334). New York, NY: Guilford Press.

Begley, A. (1999). The self-perceptions of pupils with Down syndrome in relation to their academic competence, physical competence and social acceptance. *International Journal of Disability, Development and Education, 46*, 515–529. http://dx.doi.org/10.1080/103491299100489

Biederman, J., Monuteaux, M. C., Doyle, A. E., Seidman, L. J., Wilens, T. E., Ferrero, ...Faraone, S. V. (2004). Impact of executive function deficits and attention-deficit/hyperactivity disorder (ADHD) on academic outcomes in children. *Journal of Consulting and Clinical Psychology, 72*, 757–766. http://dx.doi.org/10.1037/0022-006X.72.5.757

Bruner, J. (1996). A narrative model of self construction. *Psyke & Logos, 17*, 154—170.

Bullis, M., & Cheney. D. (1999). Vocational and transition interventions for adolescents and young adults with emotional or behavioral disorders. *Focus on Exceptional Children, 31,* 1–24.

Burns, E., & Martin, A. J. (2014). ADHD and adaptability: The roles of cognitive, behavioral, and emotional regulation. *Australian Journal of Guidance and Counselling, 24*, 227–242. http://dx.doi.org/10.1017/jgc.2014.17

Callinan, S., Cunningham, E., & Theiler, S. (2013). Revisiting discrepancy theory in learning disabilities: What went wrong and why we should go back. *Australian Journal of Guidance and Counselling, 23*, 1–17.

Carter, E. W., Trainor, A., Owens, L., Swedeen, B., & Sun, Y. (2010). Self-determination prospects of youth with high-incidence disabilities: Divergent perspectives and related factors. *Journal of Emotional and Behavioral Disorders, 18*, 67–81. http://dx.doi.org/10.1177/1063426609332605

CAST (2011). *About UDL.* Retrieved from http://www.cast.org/udl/index.html

Chapman, J. W. (1988). Learning disabled children's self-concepts. *Review of Educational Research, 58*, 347–371.

Cook, B. G. (2004). Inclusive teachers' attitudes toward their students with disabilities: A replication extension. *The Elementary School Journal, 104*, 307–320.

Cortiella, C., & Horowitz, S. H. (2014). *The state of learning disabilities: Facts, trends and emerging issues.* New York, NY: National Center for Learning Disabilities.

Covington, M. V. (2000). Goal theory, motivation, and school achievement: An integrative review *Annual Review of Psychology, 51*, 171–200. http://dx.doi.org/10.1146/annurev.psych.51.1.171

Danker, J., Strnadová, I., & Cumming, T. M. (2016). School experiences of students with autism spectrum disorders within the context of student well-being: A

review and analysis of the literature. *Australasian Journal of Special Education.* http://dx.doi.org/10.1017/jse.2016.1

Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 85–110). New York, NY: Oxford University Press. http://dx.doi.org/10.1093/oxfordhb/9780195399820.013.0006

Douglas, V. I. (1983). Attention and cognitive problems. In M. Rutter (Ed.), *Behavioral syndromes of brain dysfunction in childhood.* New York, NY: Guilford Press.

Douglas, V. I. (1985). The response of ADD children to reinforcement: Theoretical and clinical implications. In L. Bloomingdale (Ed.), *Attention deficit disorder: identification, course, and rationale.* New York, NY: Spectrum.

Dumas, D., & Pelletier, L. (1999). Perception in hyperactive children. *The American Journal of Maternal Child Nursing, 24*, 12–19.

Durlak, J. A., Domitrovich C. E., Weissberg, R. P., & Gullotta, T. P. (2015). *Handbook on social and emotional learning: Research and practice.* New York, NY: Guilford Press.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*, 405–432. http://dx.doi.org/10.1111/j.1467-8624.2010.01564.x

Edbom, T., Granlund, M., Lichtenstein, P., & Larsson, J. O. (2008). ADHD symptoms related to profiles of self-esteem in a longitudinal study of twins. *Journal of Child and Adolescent Psychiatric Nursing, 21*, 228–237.

Elliot, A. J. (2005). A conceptual history of the achievement goal construct. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 52–72). New York, NY: Guildford.

Estell, D. B., Jones, M. H., Pearl, R., Van Acker, R., Farmer, T. W., & Rodkin, P. (2008). Peer groups, popularity, and social preference: Trajectories of social functioning among students with and without learning disabilities. *Journal of Learning Disabilities, 41*, 5–14. http://dx.doi.org/10.1177/0022219407310993

Field, S. Sarver, M. D., & Shaw, S. F. (2003). Self-determination: A key to success in postsecondary education for students with learning disabilities. *Remedial and Special Education, 24,* 339–349. http://dx.doi.org/10.1177/07419325030240060501

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broadened-and-build theory of positive emotions. *American Psychological Association, 56*, 218–226. http://dx.doi.org/10.1037//0003-066X.56.3.218

Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *American Psychologist Society, 13,* 172–175. http://dx.doi.org/10.1111/1467-9280.00431

Fulk, B. M., Brigham, F. J., & Lohman, D. A. (1998). Motivation and self-regulation: A comparison of students with learning and behavior problems. *Remedial and Special Education, 19*, 300–309. http://dx.doi.org/10.1177/074193259801900506

Goldberg, R. J., Higgins, E. L., Raskind, M. H., & Herman, K. L. (2003). Predictors of success in individuals with learning disabilities: A qualitative analysis of

a 20-year longitudinal study. *Learning Disabilities Research and Practice, 18*(4), 222-236. doi: 10.1111/1540-5826.00077

Graham, L. J., & Sweller, N. (2010). Detaining the usual suspects: Charting the use of segregated settings in New South Wales government schools, Australia. *Contemporary Issues in Early Childhood, 11*(3) 234–248. doi:10.2304/ciec.2010.11.3.234

Griller Clark, H., & Unruh, D. (2010). Transition practices for adjudicated youth with E/BDs and related disabilities. *Behavioral Disorders, 36*, 43–51.

Hallahan, D. P., Kauffman, J. M., & Pullen, P. C. (2015). *Exceptional learners: An introduction to special education.* (13th ed.). Upper Saddle River, NJ: Pearson Education.

Harter, S. (1986). Processes underlying the construction, maintenance, and enhancement of self-concept in children. In J. Suls & A. Greenwald (Eds.), *Psychological perspectives on the self* (vol. 3, pp. 136–182). Hillsdale, NJ: Lawrence Erlbaum Associates.

Harter, S. (1993). Causes and consequences of low self-esteem in children and adolescents. In R. F. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard* (pp. 87–116). New York, NY: Plenum.

Harter, S. (1998). The development of self-representations. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology, 5th ed.* Hoboken, NJ: John Wiley & Sons.

Harter, S. (2012). New directions in self development: Resurrecting the I-self. In D. McInerney (Ed.), *Theory driving research: New wave perspectives on self-processes and human development.* New York, NY: Information Age.

Hoza, B., Gerdes, A. C., Hinshaw, S. P., Arnold, L. E., Pelham, W. E., Molina, B. S. G., . . . Wigal, T. (2004). Self-perceptions of competence in children with ADHD and comparison children. *Journal of Consulting & Clinical Psychology, 72*, 382—391.

Hoza, B., Pelham, W. E., Dobbs, J., Owens, J. S., & Pillow, D. R. (2002). Do boys with attention-deficit/hyperactivity disorder have positive illusory self-concepts? *Journal of Abnormal Psychology, 111,* 268—278.

Hoza, B., Waschbusch, D. A., Pelham, W. E., Molina, B. S. G., & Milich, R. (2000). Attention-deficit/hyperactivity disordered and control boys' responses to social success and failure. *Child Development, 71,* 432–446. http://dx.doi.org/10.1111/1467-8624.00155

Huck, S., Kemp, C., & Carter, M. (2010). Self-concept of children with intellectual disability in mainstream settings. *Journal of Intellectual and Developmental Disability, 35*, 141–154. http://dx.doi.org/10.3109/13668250.2010.489226

Humphrey, N. (Ed.). (2013). *Social and emotional learning: A critical appraisal.* London, England: SAGE. http://dx.doi.org/10.4135/9781446288603

Hunter, J. P., & Csikszentmihalyi, M. (2003). The positive psychology of interested adolescents. *Journal of Youth and Adolescence, 32*, 27—35.

Johnson, J. (1995). Learning disabilities: The impact on social competencies of adults. *Journal of Leisurability, 22*, 4–13. Retrieved from http://lin.ca/sites/default/files/attachments/v22n3a2.htm

Jones, A.P., & Frederickson, N. (2010). Multi-informant predictors of social inclusion for students with autism spectrum disorders attending mainstream

school. *Journal of Autism and Developmental Disorders, 40*, 1094–1103. http://dx.doi.org/10.1007/s10803-010-0957-3

Jones, H. A., & Chronis-Tuscano, A. (2008). Efficacy of teacher in-service training for Attention-deficit/Hyperactivity Disorder. *Psychology in the Schools, 45*, 918–929. http://dx.doi.org/10.1002/pits.20342

Jones, J. L. (2012). Factors associated with self-concept: Adolescents with intellectual and development disabilities share their perspectives. *Intellectual and Developmental Disabilities, 50*, 31–40. http://dx.doi.org/10.1352/1934-9556-50.1.31

Kauffman, J. M. (2015). The 'B' in EBD is not just for bullying. *Journal of Research in Special Education Needs, 15,* 167–175. http://dx.doi.org/10.1111/1471-3802.12102

Kauffman, J. M., & Landrum, T. J. (2013). *Characteristics of emotional and behavioral disorders of children and youth.* (10th ed). Upper Saddle River, NJ: Merrill Prentice-Hall.

Kavale, K. A., & Forness, S. R. (1996). Social skill deficits and learning disabilities: A meta-analysis. *Journal of Learning Disabilities, 29*, 226–237. http://dx.doi.org/10.1177/002221949602900301

Kendall, J. (2000). Outlasting disruption: The process of reinvestment in families ADHD children. *Qualitative Health Research, 8,* 839–857. http://dx.doi.org/10.1177/104973239800800609.

Klassen, R. M. (2008). The optimistic self-efficacy beliefs of students with learning disabilities. *Exceptionality Education International, 18*, 93–112.

Klassen, R. M., & Lynch, S. L. (2007). Self-efficacy from the perspective of adolescents with LD and their specialist teachers. *Journal of Learning Disabilities, 40*, 494—507.

Krueger, M., & Kendall, J. (2001). Descriptions of self an exploratory study of adolescents with ADHD. *Journal of Child and Adolescent Psychiatric Nursing, 14*, 61–72. http://dx.doi.org/10.1111/j.1744-6171.2001.tb00294.x

Lackaye, T., & Margalit, M. (2006). Comparisons of achievement, effort and self-perceptions among students with learning disabilities and their peers from different achievement groups. *Journal of Learning Disabilities, 39*, 432—446.

Lasgaard, M., Nielsen, A., Eriksen, M. E., & Goossens, L. (2010). Loneliness and social support in adolescent boys with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 40*, 218–226. http://dx.doi.org/10.1007/s10803-009-0851-z

Law, W., Elliot, A. J., & Murayama, K. (2012). Perceived competence moderates the relation between performance-approach and performance-avoidance goals. *Journal of Educational Psychology, 104*, 806–819. http://dx.doi.org/10.1037/a0027179

Learning Disabilities Association of Canada. (2015). Official Definition of Learning Disabilities. Retrieved from: http://www.ldac-acta.ca/learn-more/ld-defined/official-definition-of-learning-disabilities.

Leary, M. R., Schreindorfer, L. S., & Haupt, A. L. (1995). The role of low self-esteem in emotional and behavioral problems: Why is low self-esteem dysfunctional? *Journal of Social and Clinical Psychology, 14*, 297–314. http://dx.doi.org/10.1521/jscp.1995.14.3.297

Liem, G.A., & Martin, A.J. (2011). Peer relationships and adolescents' academic and non-academic outcomes: Same-sex and opposite-sex peer effects and the

mediating role of school engagement. *British Journal of Educational Psychology, 81*, 183–206. http://dx.doi.org/10.1111/j.2044-8279.2010.02013.x

Locke, E., & Latham, G. (2002). Building a practically useful theory of goal setting and task motivation. *American Psychologist, 57*, 705–717. http://dx.doi.org/10.1037/0003-066X.57.9.705

Locke, J., Ishijima, E. H., Kasari, C., & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive school setting. *Journal of Research in Special Educational Needs, 10*, 74–81. http://dx.doi.org/10.1111/j.1471-3802.2010.01148.x

Lund, R. (1986). The self-esteem of children with EBD. *Maladjustment and Therapeutic Education, 5*, 26—32.

Madaus, J. W. (2006a). Employment outcomes of university graduates with learning disabilities. *Learning Disabilities Quarterly, 29*, 19—31.

Madaus, J. W. (2006b). Improving the transition to career for college students with learning disabilities: Suggestions from graduates. *Journal of Postsecondary Education and Disability, 19*, 85—93.

Margerison, A. (1996). Self-esteem: Its effects on the development and learning of children with EBD. *Support for Learning, 11,* 176–180. http://dx.doi.org/10.1111/j.1467-9604.1996.tb00256.x

Marsh, H. W. (2007). *Self-concept theory, measurement and research into practice: The role of self-concept in educational psychology*. Leicester, England: British Psychological Society.

Marsh, H. W., & Craven, R. G., (2006). Reciprocal effects of self-concept and performance from a multidimensional perspective: Beyond seductive pleasure and unidimensional perspectives. *Perspectives on Psychological Science, 1*, 133—163.

Marsh, H. W., Martin, A. J., Yeung, A., & Craven, R. (2016). Competence self-perceptions. In A. J. Elliot., C. Dweck., & D. Yeager (Eds.), *Handbook of competence and motivation* (pp. 85–115). New York, NY: Guilford Press.

Martin, A. J. (2003). *How to motivate your child for school and beyond*. Sydney, Australia: Random House/Bantam.

Martin, A. J. (2005). *How to help your child fly through life: The 20 big issues*. Sydney, Australia: Random House/Bantam.

Martin, A. J. (2006). Personal bests (PBs): A proposed multidimensional model and empirical analysis. *British Journal of Educational Psychology, 76,* 803–825. http://dx.doi.org/10.1348/000709905X55389

Martin, A. J. (2007). Examining a multidimensional model of student motivation and engagement using a construct validation approach. *British Journal of Educational Psychology, 77*, 413–440. http://dx.doi.org/10.1348/000709906X118036

Martin, A. J. (2009). Motivation and engagement across the academic lifespan: A developmental construct validity study of elementary school, high school, and university/college students. *Educational and Psychological Measurement, 69,* 794–824. http://dx.doi.org/10.1177/0013164409332214

Martin, A. J. (2010). *Building classroom success: Eliminating academic fear and failure*. New York, NY: Continuum.

Martin, A. J., (2012a). Attention deficit hyperactivity disorder (ADHD), perceived competence, and self-worth: Evidence and implications for students and practitioners. In D. Hollar (Ed.), *Handbook of children with special*

health care needs (pp. 47–72). New York, NY: Springer-Verlag. http://dx.doi.org/10.1007/978-1-4614-2335-5_3

Martin, A. J. (2012b). The role of personal best (PB) goals in achievement and behavioral engagement of students with ADHD and students without ADHD. *Contemporary Educational Psychology, 37*, 91–105. http://dx.doi.org/10.1016/j.cedpsych.2012.01.002

Martin, A. J. (2013) Improving the achievement, motivation, and engagement of students with ADHD: The role of personal best goals and other growth based approaches. *Australian Journal of Guidance and Counselling, 23*, 143–155. http://dx.doi.org/10.1017/jgc.2013.4

Martin, A. J. (2014a). Academic buoyancy and academic outcomes: Towards a further understanding of students with attention-deficit/hyperactivity disorder (ADHD), students without ADHD and academic buoyancy itself. *British Journal of Educational Psychology, 84,* 86–107. http://dx.doi.org/10.1111/bjep.12007

Martin, A. J. (2014b). The role of ADHD in academic adversity: Disentangling ADHD effects from other personal and contextual factors. *School Psychology Quarterly, 29,* 395–408. http://dx.doi.org/10.1037/spq0000069

Martin, A. J. (2016). Positive education in Asia—and beyond. *The Asia-Pacific Education Researcher, 25*, 493–498.

Martin, A. J., & Burns, E. C. (2014). Academic buoyancy, resilience, and adaptability in students with ADHD. The ADHD Report, 22, 1–9. http://dx.doi.org/10.1521/adhd.2014.22.6.1

Martin, A. J., Burns, E. C., & Collie, R. J. (2016). ADHD, personal and interpersonal agency, and achievement: Exploring links from a social cognitive theory perspective. *Contemporary Educational Psychology*. Retrieved from https://doi.org/10.1016/j.cedpsych.2016.12.001

Martin, A. J., Cumming, T. M., O'Neill, S. C., & Strnadová, I. (2017). Social and emotional competence and at-risk children's well-being: The roles of personal and interpersonal agency for children with ADHD, emotional and behavioral disorder, learning disability, and development disability. In E. Frydenberg, A. J. Martin, & R. J. Collie (Eds.), *Social and emotional learning in Australia and the Asia-Pacific* (pp. 123–146). Singapore: Springer.

Martin, A. J., & Dowson, M. (2009). Interpersonal relationships, motivation, engagement, and achievement: Yields for theory, current issues, and practice. *Review of Educational Research, 79*, 327–365. http://dx.doi.org/10.3102/0034654308325583

Martin, A. J., & Elliot, A. J. (2016a). The role of personal best (PB) and dichotomous achievement goals in students' academic motivation and engagement: A longitudinal investigation. *Educational Psychology, 36,* 1285–1302.

Martin, A. J., & Elliot, A. J. (2016b). The role of personal best (PB) goal setting in students' academic achievement gains. *Learning and Individual Differences, 45*, 222–227.

Martin, A. J., & Liem, G. A. D. (2010). Academic personal bests (PBs), engagement, and achievement: A cross-lagged panel analysis. *Learning and Individual Differences, 20*, 265–270. http://dx.doi.org/10.1016/j.lindif.2010.01.001

Martin, A. J., & Marsh, H. W. (2003). Fear of failure: Friend or foe? *Australian Psychologist, 38*, 31–38.

Martin, A. J., & Marsh, H. W. (2008). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology, 46*, 53–83. http://dx.doi.org/10.1016/j.jsp.2007.01.002

Martin, A. J., & Marsh, H. W. (2009). Academic resilience and academic buoyancy: Multidimensional and hierarchical conceptual framing of causes, correlates, and cognate constructs. *Oxford Review of Education, 35*, 353–370. http://dx.doi.org/10.1080/03054980902934639

Mihalas, S., Morse, W. C., Allsopp, D. H., & Alvarez McHatton, P. (2009). Cultivating caring relationships between teachers and secondary students with emotional and behavioral disorders: Implications for research and practice. *Remedial and Special Education, 30*, 108–125. http://dx.doi.org/10.1177/0741932508315950

Milich, R., & Greenwell, L. (1991). An examination of learned helplessness among attention-deficit hyperactivity disordered boys. In B. Hoza & W. E. Pelham (Chairs), *Cognitive Biases as Mediators of Childhood Disorders: What do we know?* Symposium presented at the annual meeting of the Association for the Advancement of Behavior Therapy, New York.

Milich, R., & Okazaki, M. (1991). An examination of learned helplessness among attention deficit hyperactivity disordered boys. *Journal of Abnormal Child Psychology, 19*, 607–623.

Montague, M., Enders, C., Dietz, S., Dixon, J., & Morrison Cavendish, W. (2008). A longitudinal study of depressive symptomology and self-concept in adolescents. *The Journal of Special Education, 42*, 67–78. http://dx.doi.org/10.1177/0022466907310544

Morales, E. E. (2000). A contextual understanding of the process of educational resilience: High achieving Dominican American students and the "Resilience Cycle." *Innovative Higher Education, 25*, 7–22. http://dx.doi.org/10.1023/A:1007580217973

Morrison Cavendish, W. (2006). *Student perception of school effort to involve students in the education process, school commitment, and self-determination* (Unpublished doctoral dissertation). University of Miami.

Noble, T., & McGrath, H. (2014). Well-being and resilience in school settings. In C. Ruini & G. A. Fava (Eds.), *Increasing psychological well-being in clinical and educational settings: Interventions and cultural contexts* (pp. 135–152). Dordrecth, Netherlands: Springer. http://dx.doi.org/10.1007/978-94-017-8669-0_9

Odom, S. L., Collet-Klingenberg, L., Rogers, S. J., & Halton, D. D. (2010). Evidence-based practices in interventions for children and youth with autism spectrum disorders. *Preventing School Failure, 54*, 275–282. http://dx.doi.org/10.1080/10459881003785506

Ostrander, R., Crystal, D. S., & August, G. (2006). Attention Deficit-Hyperactivity Disorder, Depression, and Self- and Other-Assessments of Social Competence: A developmental study. *Journal of Abnormal Child Psychology, 34*, 773—787.

Pennington, B. F., & Ozonoff, S. (1996). Executive functions and development psychopathology. *Journal of Child Psychiatry, 37*, 51–87. http://dx.doi.org/10.1111/j.1469-7610.1996.tb01380.x

Peterson, C. (2006). *A primer in positive psychology.* Oxford, England: Oxford University Press.

Peterson, C., & Seligman, M. E. (2004). *Character strengths and virtues: A handbook and classification.* Oxford, England: Oxford University Press.

Pisecco, S., Wristers, K., Swank, P., Silva, P. A., & Baker, D. B. (2001). The effect of academic self-concept on ADHD and antisocial behaviors in early adolescence. *Journal of Learning Disabilities, 34*, 450–461

Poulou, M., & Norwich, B. (2002). Cognitive, emotional and behavioural responses to students with emotional and behavioural difficulties: A model of decision-making. *British Educational Research Journal, 28*, 111–138. http://dx.doi.org/10.1080/01411920120109784

Purdie, N., Hattie, J., & Carroll, A. (2002). A review of the research on interventions for attention deficit hyperactivity disorder: What works best? *Review of Educational Research, 72*, 61–99. http://dx.doi.org/10.3102/00346543072001061

Reeve, J. (2012). A self-determination theory perspective on student engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 149–172). New York, NY: Springer.

Rhoades, B. L., Warren, H. K., Domitrovich, C. E., & Greenberg, M. T. (2011). Examining the link between preschool social—emotional competence and first grade academic achievement: The role of attention skills. *Early Childhood Research Quarterly, 26*, 182–191. http://dx.doi.org/10.1016/j.ecresq.2010.07.003

Ryan, R. M., & Deci, E. L. (2010). Promoting self-determined school engagement. In K. R. Wentzel & A. Wigfield (Eds.), *Handbook of school motivation.* New York, NY: Routledge .

Sabornie, E. J. (1987). Bi-directional social status of behaviorally disordered and non-handicapped elementary school pupils. *Behavioral Disorders, 13*, 45–57.

Sabornie, E., & Kauffman, J. (1985). Regular classroom sociometric status of behaviorally disordered adolescents. *Behavioral Disorders, 10*, 191–197.

Sawyer, M. G., Whaites, L., Rey, J. M. Hazell, P. L., Graetz, B. W., & Baghurst, P. (2002). Health-related quality of life of children and adolescents with mental disorders. *Journal of American Academy of Child and Adolescent Psychiatry, 41*, 530–537. http://dx.doi.org/10.1097/00004583-200205000-00010

Schunk, D. H., & Miller, S. D. (2002). Self-efficacy and adolescents' motivation. In F. Pajares & T. Urdan (Eds.), *Academic motivation of adolescents* (pp. 29–52). Greenwich, CT: Information Age.

Schunk, D. H., & Pajares, F. (2005). Competence perceptions and academic functioning. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 85—104). New York, NY: Guilford.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*, 5–14. http://dx.doi.org/10.1037//0003-066X.55.1.5

Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist, 60*, 410—421. http://dx.doi.org/10.1037/0003-066X.60.5.410

Shaw-Zirt, B., Popali-Lehane, L., Chaplin, W., & Bergman, A. (2005). Adjustment, social skills, and self-esteem in college students with symptoms of ADHD. *Journal of Attention Disorders, 8*, 109–120.