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REVIEW ARTICLE

Review of Brief School-Based Positive Psychological Interventions: a Taster for Teachers and Educators

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Abstract Research studies looking into the effects of positive psychology interventions (PPIs) implemented in classrooms have yielded promising results, not only in terms of student well-being but also in terms of academic outcomes, school climate, and teacher well-being. However, a number of PPIs require relatively high levels of commitment from school administrators and teachers to put into place. This may result in many teachers dismissing PPIs across the board as too complicated to implement. The goal of the present article is thus to present a review of brief PPIs (BPPIs) based on positive psychology research in order to encourage involvement in such interventions at school. The BPPIs presented here have been categorized into four sections according to established areas of research in positive psychology, mindfulness, gratitude, strengths, and positive relationships, with precise examples of practices which have been successfully implemented and have demonstrated diverse benefits on student learning and well-being. The potential limitations of such interventions are also highlighted in order to foster best practices and cross-cultural adaptations of such projects.

Keywords Positive psychology interventions · Mindfulness · Gratitude · Character strengths · Schools

School-based psychological interventions have existed since the early 1930s. During the second half of the twentieth century, prevention programs predominated in the school-based mental health promotion literature (for a review, see Dawood 2013). More recently, the development of positive psychology has yielded new intervention models aiming at fostering mental health and promoting well-being in education. This represents a shift in the research focus within the psychological sciences where previous progress had led to major advances in understanding human disorders, impaired functioning, and the prevention of disease, while

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largely leaving aside the development of human potential and well-being determinants (Simonton and Baumeister 2005). At the turn of the twenty-first century, when Martin Seligman became president of the American Psychological Association (APA), he highlighted this imbalance and called for more research and interventions in the field of well-being. Since Seligman and Csikszentmihalyi's (2000) seminal paper on positive psychology, many research studies and positive psychological interventions (PPIs) have been developed. PPIs are designed to promote global well-being and foster individual strengths rather than being focused on fixing weaknesses (Parks and Biswas-Diener 2013).

In their meta-analysis, Sin and Lyubomirsky (2009) defined PPIs as being aimed at cultivating positive feelings, cognitions, and behaviors. Although not specifically designed to be implemented within the school context, these PPIs have begun to be implemented in school settings, with varying degrees of success in terms of effectiveness and ease of implementation. Examining ways to apply positive psychology to education and the application of positive psychological interventions in schools is a fast-developing area of research. In line with the ongoing collaboration between the fields of psychology and education in general, the specific links with positive psychology may be important for several reasons, including rising concerns about youth well-being, the role of schools in educating outside of traditional academic subjects, and increasing teachers' knowledge about the links between well-being and performance.

Research looking at the effects of both individual interventions implemented in classes (e.g., Froh et al. 2008; Marques et al. 2011), as well as whole-school initiatives (e.g., Green et al. 2012; Seligman et al. 2009; Shoshani and Steinmetz 2014), has yielded promising results, not only in terms of student well-being but also in terms of academic outcomes, school climate, and teacher well-being.

Although many of the interventions hold considerable potential, a number of them require a certain level of expertise. Hence, PPIs are frequently run by trained individuals, which is often costly for the schools involved. This means that the schools in which the students are already better off are those that can afford to implement PPIs. Furthermore, PPIs often require a high degree of commitment from school administrators and teachers to put into place, such as reorganizing the curriculum, carving out extra time in the daily schedule, attending training sessions, doing "homework" to prepare for class, or gathering and bringing in supplemental material. This may result in teachers in many schools worldwide dismissing positive psychological interventions across the board as too complicated to implement. The goal of the present article is thus to present a review of brief PPIs to encourage teachers and school administrators less familiar with positive psychology to dip their toes in the waters of positive education. This in turn may help to spur future research in both brief and more-involved interventions.

Outlining PPIs in schools is important for various reasons. First, although there have been several review papers of multi-week interventions, whole-school initiatives, and integrating positive psychology frameworks within schools (e.g., Noble and McGrath 2008; Seligman et al. 2009; Waters 2011), to our knowledge, a review of brief interventions has not been published. Second, such a review may spur more hesitant teachers and school systems to give such interventions a try. This is especially true for settings in which social emotional learning, "whole-student" approaches, and character development are less established in public discourse on education. Finally, we hope that by getting more teachers on board, this in turn will encourage more research—both fundamental and applied—as collaborations with educators and psychologists are crucial for this to happen.

Following George Miller's APA presidential address (1969) in which he used the phrase "giving psychology away" to refer to providing psychological knowledge and expertise to the public at no charge, it is important to remember that the goal of applying positive psychology to education is not intended for a select few (whether the select few are teachers or students)

but rather it is to be integrated into the curriculum for the greatest number possible. Hence, if our goal is for positive education to be more universally applied, at least some of such research must be relatively easy to implement for teachers and administrators alike. This article will present 16 PPIs that have been described in the literature in psychology and education. For the sake of this article, we will refer to these interventions as brief school-based positive psychological interventions (BPPIs), to emphasize the fact that these can be implemented in the classroom setting without extensive need for time, material, or expertise.

In sum, the aim of the present article is threefold: (1) to give insight into the effectiveness and potential implementation of BPPIs; (2) to facilitate multiple level involvement (teachers, school psychologists, healthcare workers) in positive education for children and adolescents in schools where such practices have not yet been developed or included in the curriculum; and (3) to discuss the limits and potential counterproductive effects of BPPIs according to how the intervention is implemented.

The first section will highlight the rationale for selecting the BPPIs reviewed in this article within four domains—mindfulness, character strengths, gratitude, and positive relationships—and how they relate to well-being and achievement in schools. Each sub-section will include a brief theoretical introduction to the area of research and the rationale for using these practices in order to foster well-being and learning. The second section will present practical aspects related to BPPIs in educational settings. The final section discusses potential pitfalls of BPPIs in schools, as well as concluding remarks and recommendations based on the current state of research.

School-Based Positive Psychology Interventions

In several countries, twenty-first century schooling has been designed to develop a "whole-student" approach, where education is oriented towards social, emotional, moral, and intellectual development (Cain and Carnellor 2008; McCombs 2004; Palmer 2003). Furthermore, there seems to be increasing interest among educators of being trained in positive education (e.g., Green et al. 2012).

However, many teachers remain uncertain as to how they may go about "positive education" in their classroom. PPIs may become a means of assisting such whole-student approaches as they enhance both well-being and learning abilities. Indeed, Seligman et al. (2009) precisely defined positive education as interventions that help foster traditional academic skills along with abilities to develop sustainable well-being. Research studies have evidenced that student well-being is positively related to academic performance. In a meta-analysis of 213 studies involving 270,034 students from kindergarten to high school, results showed that students enrolled in a social and emotional learning program ranked 11 percentage points higher on achievement tests than students who were not included in such programs (Durlak et al. 2011).

In order to fit the specific school needs and context, the interventions presented here have been selected according to their documented impact on school engagement and performance, as well as subjective and/or psychosocial well-being. Subjective well-being has been defined as the experience of high levels of positive emotions, low levels of negative emotions, and a high level of satisfaction with life (Diener 1984; Diener et al. 1999), while psychological well-being comprises more existential dimensions such as self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relationships (Ryff 1989). Academic outcomes most commonly assessed through the research studies are achievement, motivation, and engagement (for more details on the different conceptualizations of engagement, see Christenson et al. 2012), while student well-being has been both measured using subjective and psychological well-being criteria.

How Do PPIs Relate to Student Well-Being and Positive Academic Outcomes?

Perhaps one of the most useful models for understanding how PPIs impact both well-being and achievement is the Broaden and Build Theory of Positive Emotions developed by Fredrickson (1998, 2001). This theory suggests that positive emotions lead to greater performance. For example, after eliciting positive emotions in a randomized controlled trial, participants took less time in solving a problem and found more creative and numerous solutions compared to the other group (Estrada et al. 1997). Research studies based on this model have underlined how positive emotions broaden the scope of attention, thoughts, and actions which helps develop greater creativity, although attention focusing is also important in order to foster academic performance (for more details, see Rathunde 2000). The Broaden and Build Theory suggests that the new competencies developed through the process of creative problem solving, enable to better adapt to stressful situations in the future, thereby leading to greater levels of sustainable well-being (Fredrickson 2001; Fredrickson and Branigan 2005).

The second model which may be particularly useful in understanding the benefits of PPIs in school settings is Deci and Ryan's Self-Determination Theory (2002) which suggests that people are more intrinsically motivated, engaged, and show higher levels of well-being when they have feelings of autonomy, competence, and relatedness. By fostering an autonomy-supportive environment (the students are in control of the practices proposed, they decide which strengths they wish to work on, which act of kindness they choose to perform, etc.), by increasing feelings of competence (through strength-spotting practices for example), and by enhancing feelings of connectedness (by focusing on group practices and cooperation for example), teachers can create environments that are beneficial to both performance and to well-being.

Although recent literature reviews underline that research on positive emotions and health promotion in educational settings remains scarce, the results of studies carried out on young people and adults suggest that PPIs can yield positive academic and well-being outcomes (Dawood 2013; Tessier and Shankland, submitted). Below we will briefly outline how four PPI domains relate to these outcomes, namely mindfulness, character strengths, gratitude, and positive relationships.

Mindfulness in School Settings

The term mindfulness refers to the awareness that arises from paying attention to the present moment, deliberately and without judgment (Kabat-Zinn 1996). By directing attention to immediate experience, one can gain insight into how the mind responds to the environment. This allows seeing thoughts and emotions as mental events instead of facts and gradually works to shift mental habits that encourage stress, reactivity, anxiety, and depression. Although mindfulness originally comes from Buddhist practices, its use has become increasingly secularized in recent years, in large part due to Kabat-Zinn's pioneering work at the University of Massachusetts Medical Center.

In the West, mindfulness has been studied as a healthcare and health promotion intervention since the 1970s, when Kabat-Zinn began teaching an 8-week mindfulness program at the university hospital. The program, called Mindfulness-Based Stress Reduction (MBSR), has since been widely implemented in different contexts and cultures, and its efficacy has been shown for a variety of psychological and physical ills, including depression, chronic pain, eating disorders, and substance abuse (Grossman et al. 2004). Of particular importance is the

finding that the various benefits gained from mindfulness interventions appear to be sustained over time, with effects maintained up to 3 years later in follow-up studies (Miller et al. 1995).

It is not insignificant that in schools and elsewhere, we frequently ask children to pay attention but give them no instruction as to how to do so. As stated above, mindfulness programs work by directing attention to the present moment, and focused attention, for instance, is often taught by paying attention to the breath coming in through the nostrils, passing through the body and released. Even for beginners, there is often a sense of satisfaction that comes from discovering the power of choosing where to direct one's attention. As one practitioner stated, children learn that: "They can direct their attention. When they are asked to place their attention in their feet, or in their hands, or onto their breath, not only can they usually do it, but it interests them that they can do it" (Burnett 2009).

Preliminary studies have also shown its effectiveness in children being taught within a school setting (e.g., Burke 2010; Garrison Institute 2005; Huppert and Johnson 2010; Kuyken et al. 2013; Thompson and Gauntlett-Gilbert 2008). As research has demonstrated the effectiveness of mindfulness towards many of the objectives of contemporary education such as attention, concentration, and self-regulation (Cowger and Torrance 1982; Goleman 1995; Mayer and Salovey 1997), new programs looking at practicing mindfulness in schools are emerging, studying young people across a range of ages, from children in primary school to adolescents in secondary school (for a review see Deplus et al. 2014), and students in university settings (Lynch et al. 2011; Shankland et al. 2010).

One of the challenges facing integrating mindfulness in schools is the commitment involved in traditional MBSR and MBSR-inspired programs. And yet, one of the benefits of mindfulness is that it lends itself relatively easily to "tasters," which give students and teachers the opportunity to have a sense that mindfulness is do-able—the children learn they can actually direct their attention and integrate it into one's daily routine. Although to our knowledge the question has not yet been addressed through empirical studies, one could argue that that giving students a taste, however cursory, to encourage pursuing it further may be worth the drawbacks of not delving fully into an intensive program.

Several programs have been developed within the past few years, including MindUP (The MindUP Curriculum, 2011; implemented in the USA and the UK), Inner Kids (Kaiser Greenland 2010; implemented in the USA), Learning to BREATHE (Broderick 2013; implemented in the USA), the .b Mindfulness in Schools Project (Burnett 2013; implemented in the UK), The Still Quiet Place (Saltzman 2014; implemented in the USA), and Mindfulness Matters (Snel 2013, 2015; implemented in the Netherlands), to name a few. These programs are often quite creative in finding ways to introduce mindfulness to young people. The curriculum of the .b program for instance was developed over 4 years, using input from more than 200 teachers and over 2000 students. Many of the individual exercises of these programs lend themselves easily to classroom integration, including those described below. We will thus present four examples of BPPIs which target focusing attention to present-moment experience with open-mindedness. The aim of such practices is to help students increase awareness of their present state and of what occurs around them, while cultivating non-reactivity towards what they experience: to remain still and observe rather than engaging in automatic responses. These practices also reduce experiential avoidance tendencies, which have been reported to reduce well-being (e.g., Machell et al. 2015). Trying to escape from uncomfortable emotions, situations, or thoughts generates maladaptive coping strategies and, as research on thought suppression has highlighted, the more one tries to suppress cognitions and emotions, the more they may come back (e.g., Gross 2002; Wegner 2009).

Mindfulness practices have also been shown to enhance relationship quality through greater levels of emotion regulation, empathy, and social skills (Baer et al. 2004, 2006; Brown and Ryan 2003; Dekeyser et al. 2008; Jones et al. 2011; Pepping et al. 2013; Schutte et al. 2001). Recent research in cognitive neuroscience and mindfulness has underlined the importance of cultivating caring mindfulness by practicing compassion in order to better foster empathy and prosocial behaviors (McCall et al. 2014). Hence, mindfulness and compassion training appear to be lifelong useful prosocial behavior elicitors that can be effectively developed within the school curriculum.

Recent advances in neuroscience have shed light on how the brain changes in response to mindfulness practice. Neuro-imaging studies in adults show that regular mindfulness practice can "reliably and profoundly alter the structure and function of the brain" (Weare 2013). In their examination of the effects of mindfulness on the brain, Davidson and Lutz (2008) found evidence of increased blood flow to key areas in the cerebral cortex associated with attention and emotional integration in people practicing mindfulness. These brain modifications also lead to the conclusion that mindfulness practices may increase academic success along with higher levels of social and emotional skills and well-being.

In terms of academic performance, a recent meta-analysis (Waters et al. 2015) on 15 studies ($n = 1797$ participants) carried out on meditation practices in schools (not only mindfulness practices) found seven studies ($n = 1210$) assessing cognitive functioning (attention) and only three studies had measured achievement outcomes. A study by Nidich et al. (2011) (transcendental meditation) provided the most evidence for positive impact, while Rosaen and Benn's (2006) study showed self-reported improvements in academic performance. In the study by Nidich et al. (2011), the results showed that third to seventh graders demonstrated an increase in language and study skills, while ninth to eleventh graders improved on social and literary courses and thinking skills which were measured by standardized tests.

Despite the scarcity of studies measuring performance, the effects of meditation on attention and emotion regulation remain convincing enough to pursue research efforts in this field. Indeed, in the Waters et al. meta-analysis (2015), positive outcomes on well-being, emotion regulation, and social competences are evidenced. Of particular interest is the fact that interventions delivered by teachers showed substantially more consistent effects compared with other instructors. Furthermore, frequent practicing (more than once per day) generated more significant findings among well-being variables, and these results were more consistent with senior school students in comparison to middle school and K-12 schools.

In what concerns social competence, the meta-analysis showed significant, although predominantly small, positive effects of meditation. For emotion regulation, the analyses carried out on the combined sample size of 698 participants showed that meditation had a significant effect on emotional regulation in 41 % of the results. This result is encouraging for school-based interventions as emotion regulation has been related to individual well-being, social competencies, and academic achievement in kindergarten (Graziano et al. 2007), middle school (Gumora and Arsenio 2002), and university students (MacCann et al. 2011), even when controlling for IQ and cognition-related skills.

Waters et al. (2015) report that the ability to self-regulate (attention or emotion regulation) assists students in becoming more disciplined with their learning habits and in managing the stress of academic demands (Wang et al. 1997; Zins et al. 2004). Emotion regulation may also be helpful within examination contexts (MacCann et al. 2011). Hence, mindfulness practices may help develop attitudes and abilities that appear to be particularly useful in school settings.

Character Strengths in School Settings

Strengths have been defined as intrinsically valued ways of behaving, thinking, and feeling which promote well-being, positive relationships, and successful goal achievement (Peterson and Seligman 2004; Linley and Harrington 2006). Although most studies on strengths have been carried out on adult populations, we can examine strengths in young children if we have the lens to look out for them and the language to label them (Peterson and Park 2006). Rather than developing new strengths, positive psychology research studies suggest that using one's existing strengths in a new way is an effective means of enhancing well-being (e.g., Gander et al. 2012; Madden et al. 2011; Mongrain and Anselmo-Matthews 2012; Seligman et al. 2005).

Recent research has found that when people work from their strengths—as opposed to their weaknesses—both their learning curve and their performance are improved at work (Clifton and Harter 2003). In other words, they learn faster and perform better; they are also more motivated and have a higher level of satisfaction, feelings of mastery, and competence (Linley and Harrington 2006; Peterson and Seligman 2004), which then can impact self-efficacy beliefs (Bandura 1997).

Authors have argued that the link between well-being and the use of signature strengths may be explained by the fact that these practices help meet basic psychological needs for autonomy, competence, and social relatedness (Linley et al. 2010a). Feelings of autonomy may be enhanced by the fact that strengths use is based on intrinsic motivation and self-determined actions, while feelings of competence are increased through strength development. Strengths use may also enhance positive relationships in the classroom which can lead to a more positive classroom climate. For example, in a correlational study carried out by Wagner and Ruch (2015), the strongest correlations between positive classroom behaviors and character strengths were found for perseverance, self-regulation, prudence, social intelligence, and hope. As shown by research studies based on the prosocial classroom theoretical model (Jennings and Greenberg 2009), classroom climate is closely related to student well-being and academic outcomes.

Since Seligman and colleagues' initial Internet study in 2005, numerous strengths-based studies have been carried out, including some in school settings. For example, the Positive Psychology for Youth Program is a curriculum for teenagers (14–15 years old), focused on using and developing character strengths. In a randomized controlled trial, it was found that the program improved social skills and engagement in school. Furthermore, these results were maintained 2 years later (Gillham et al. 2013; Seligman et al. 2009). Among youth, using signature strengths in novel ways along with personally meaningful goal setting has also been shown to lead to increased student engagement and hope (Madden et al. 2011). Linley (2008) further posits that the effects of strengths interventions on well-being include a feeling of validation and appreciation, which increase self-esteem and self-efficacy beliefs (Austin 2005).

Based on these positive, although preliminary, research results in youth, Linkins et al. (2014) have outlined several practices to help cultivate strengths in children, many of which inspired the BPPIs described later in this paper.

Gratitude in School Settings

Gratitude has been defined as "a sense of thankfulness and joy in response to receiving a gift, whether the gift be a tangible benefit from a specific other or a moment of peaceful bliss

evoked by natural beauty" (Emmons 2004, p. 554). Two different types of gratitude may therefore be identified: gratitude towards the benefactor (McAleer suggested using the term "targeted gratitude") and gratitude that something exists or happened ("propositional gratitude," McAleer 2012). Although the first type of gratitude has been more frequently studied in positive psychology, both have been shown to be associated with higher levels of well-being (e.g., Adler and Fagley 2005; Watkins et al. 2003). In what concerns targeted gratitude, the literature suggests that people feel grateful when they acknowledge receiving an intentional act of kindness from a benefactor (Emmons and McCullough 2004). Specifically, they experience gratitude in response to benefits that (a) they perceive as valuable to them, (b) were provided intentionally and altruistically (rather than by self-interest), and (c) were costly to the benefactor (Tesser et al. 1968; Wood et al. 2008c).

Grateful individuals report experiencing higher levels of life satisfaction, optimism, and vitality, while also reporting less depression and envy (McCullough et al. 2002). Research studies looking at the potential benefits of a deliberate practice of gratitude have underlined a number of positive outcomes on individual and collective well-being (Seligman et al. 2009; Seligman et al. 2005; Wood et al. 2009, 2010), as well as benefits on specific academic variables such as school satisfaction (Froh et al. 2008) and academic achievement (Froh et al. 2011). It has been shown to be particularly effective for children and adolescents low in positive affect, while a ceiling effect may be observed in high positive affect students (Froh et al. 2009).

Gratitude also plays a unique role in social bonding and relationship maintenance (e.g., Algoe et al. 2008; Froh et al. 2010). The find-remind-and-bind theory of gratitude (Algoe 2012) posits that this positive emotion serves an evolutionary function in strengthening a relationship through reciprocal responsiveness (Algoe et al. 2008). This theory highlights the role of gratitude in (1) facilitating initiation of new relationships as expressing gratitude may serve to alert previously unacquainted peers to the potential for a high-quality social bond (finding dimension; Williams and Bartlett 2015); (2) orienting attention towards existing relationships (reminding dimension; Algoe et al. 2013); and (3) maintaining these relationships (binding dimension; McCullough et al. 2008). As strong social ties are critical for youth adjustment, bonding to school, and achievement (Huebner et al. 2006), gratitude interventions may be particularly useful in schools.

Through practices such as counting blessings, students learn to shift attention towards what they have rather than what they do not have and get better at appreciating and noticing people's intentions and how they benefit from them. This ability to shift attention towards positive aspects of everyday life counterbalances the tendency of the human mind to pay more attention to potentially negative stimuli in the environment, which has been labelled the "negativity bias" (Baumeister et al. 2001). This bias is robust and has been found in multiple domains, from greater physiological arousal and greater recall and attention for negative stimuli than positive or neutral stimuli. This "bad is stronger than good" bias results in our being exquisite detectors of the bad while often overlooking the good. As attention is selective, we tend to focus on one aspect (for example a word of criticism) while forgetting the larger picture (overall the homework handed in was good). Similar to developing deliberate strategies to overcome our natural cravings for fat, sugar, and salt (natural tendencies no longer as adaptive as they once were), we must also develop deliberate strategies to overcome our natural tendency to focus on the bad. The practice of gratitude serves as a deliberate reminder to shift our attention to something positive in our lives. However, it should be mentioned that this attentional shift may be more difficult for certain students and may require additional time or

help. For example, specific attractive ways of generating this shift in children and adolescents might be to suggest taking daily photographs of positive aspects of their experiences (we are currently carrying out a randomized controlled study on this practice). A further mechanism through which gratitude may lead to well-being and academic positive outcomes is the impact of positive emotions on creativity and problem solving, as highlighted above (Fredrickson's broaden and build theory, 1998 2001).

Although research studies have demonstrated a wide range of personal, interpersonal, and social benefits associated with the practice of expressing thanks and experiencing feelings of gratitude, Morgan et al. (2015) argue that such benefits may be considered as morally distinct in that the former implies a more direct and explicit prosocial dimension than the latter. However, as research studies have shown that positive mood and happiness lead to higher levels of altruism (e.g., Shankland 2012). In line with McCullough et al. (2001), we can thus consider gratitude as a moral emotion which comprises three moral functions. First, gratitude plays the role of a moral barometer, gauging enhancement in one's well-being in response to a moral action. Secondly, gratitude may serve as a moral motivator, whereby beneficiaries are motivated to help others, even if unrelated to the benefit received. Thirdly, gratitude constitutes a moral "reinforcer," whereby the prosocial actions of benefactors are re-affirmed following the expression of gratitude from the beneficiary. Morgan et al. (2015) call attention on the potential danger of implementing gratitude interventions without questioning the moral dimensions of the practices. These aspects will be further developed in the next section in which practical issues are discussed.

Positive Relationships in School Settings

Positive relationships are here defined as supportive interactions and cooperation with both teachers and students. They appear to be essential to well-being in general (Baumeister and Leary 1995) and in schools (e.g., Segrin and Taylor 2007). Diener and Diener (1995) found that the only factor that consistently predicted happiness across widely differing cultures was the quality of social relationships. A large study carried out by Diener and Seligman (2002) on a student population over a 2-month period showed that happiness levels in students were essentially linked to ways of coping with stressful situations, which was increased through social support. Prosocial behaviors have been shown to increase well-being not only because of their impact on social support (reciprocal altruism theory, Trivers 1971) but also because of other factors (e.g., Grube and Piliavin 2000). For instance, positive emotions have been shown to increase altruistic behaviors (Shankland 2012), and prosocial behaviors increase happiness (e.g., Otake et al. 2006; House et al. 1988; Young and Glasgow 1998). Positive social relationships thus can improve both individual well-being and collective well-being within schools, both of which work towards improving problem solving and learning (e.g., Isen et al. 1987).

Well-being theories can shed light on the comprehension of this phenomenon. For example, self-determination theory (Deci and Ryan 2002) considers that altruism increases happiness as it follows an intrinsic motivation (Weinstein and Ryan 2010) and is generally strongly related to personal values. Carrying out altruistic acts thus increases one's sense of coherence (Antonovsky 1996) and is correlated with higher levels of meaning in life (e.g., Shek et al. 1994). Self-determination theory also posits that well-being may be enhanced by responding to three fundamental psychological needs: autonomy, competence, and connectedness. Prosocial

engagement such as acts of kindness (described later) can be seen as meeting all three fundamental needs as an act of kindness is self-determined (the student anticipates ways in which he or she may help another student), carrying out the action implies mastering the necessary competence to do so, and the outcome is higher quality social bonding.

The situation of relationships within schools appears to be paradoxical: on the one hand, students are taught on an explicit level that cooperation is valued; on the other hand, the nature of school and grades implicitly teaches them that competition is valued. Students thus receive mixed messages in school about relationships and specifically about cooperation and competition. Although the emphasis on cooperation and competition is to some degree culturally dependent, students nonetheless come to understand that the worse their classmates do, the better they may find themselves in the ranking.

With the advent of the jigsaw classroom in the USA in the 1970s (Aronson and Patnoe 2011), cooperative learning techniques have been implemented in many schools and have been extensively studied. Indeed, more than 1000 research studies have examined the benefits of cooperative educational techniques in schools (Noble and McGrath 2008), demonstrating that such practices help promote acceptance of others (Johnson and Johnson 1987), as well as cooperation and prosocial behavior (Choi et al. 2011; Hertz-Lazarowitz 1983; Hertz-Lazarowitz et al. 1980).

Cooperative learning differs from traditional learning methods in which a teacher explains a particular concept to all, by engaging the students themselves in the teaching. This encourages cooperation instead of competition. Research has found that such techniques not only increase learning but also lead to more positive relationships and greater psychological health, whereas competition is associated with negative outcomes like bullying, loneliness, and anxiety (Johnson and Johnson 1987). Hence, a change of framework can bring much to the classroom, both in terms of academic success as well as psychological and social well-being.

In classes where relationships appear to be particularly problematic, some teachers might feel more comfortable working first on individual well-being by generating more autonomy-supportive interactions with the students. Research studies have shown that individual and collective well-being tends to feed into one another. For example, in a study which had been carried out as part of a survey in which the participants rated their level of happiness, the experimenter then suggested the participants give part of the money they had received for the survey to a non-profit organization. The results showed that the happier the participants, the more money they donated (Shankland 2012). Hence, individual well-being may lead to greater prosocial behaviors, which in turn increase positive relationships.

Brief Positive Psychological Interventions in Practice

The BPPIs presented in this paper have been selected in order to correspond to the following criteria:

- Can be put into place by individual teachers
- Can be carried out by one teacher or several in the school
- Can be integrated into the existing curriculum
- Can be put into place without administrative red tape
- Do not require extensive time to put into place
- Do not require special training to put into place

- Do not require special materials to put into place
- Can be used/adapted with students of different ages
- Can be used with students in different school systems
- Are aimed at increasing the positive instead of fixing weaknesses (in line with Sin and Lyubomirsky's (2009) characterization of PPIs)

The interventions presented have been mainly used in schools throughout North America, Europe, and Australia, in both state-funded and independently funded schools, and with students of all ages.

A Teacher-Based Approach

The BPPIs are designed to be implemented by the teachers themselves (instead of school psychologists or specialized professionals). One potential benefit of having the activities introduced by the teachers is enhanced effectiveness as the teachers already have an ongoing relationship with their students and can continue reinforcing the lessons after the standard curriculum has been completed (Waters 2011).

A Cross-Cultural Approach

It is noteworthy that a disproportionate amount of the research and implementation of PPIs in schools has been done within a select number of countries, including the USA, Canada, Australia, and England. Although there are real and meaningful differences in the school systems across these countries, it is not a coincidence that they also share certain broad educational philosophies, particularly in terms of the role school plays in cultivating emotional and social well-being. For instance, although Seligman et al. (2009, p. 295) noted that "In the USA, most states now mandate or encourage character education, and many have standards related to social and emotional learning (Cohen 2006; CASEL 2010) [and] Britain's education policy also includes the promotion of moral and character development social competencies (Arthur 2005)," his emphasis is not necessarily shared by school systems around the world nor all educational policies. Furthermore, important differences exist in terms of constraints on teachers' time and the latitude teachers have in modifying the curriculum. If we hope to spread the wealth of the application of positive psychology in schools, it is crucial that we take this into account.

More recently, programs have been developed and implemented in other countries such as China (Tian et al. 2014), Spain (Arguís Rey et al. 2011), Portugal (Marques et al. 2011), The Netherlands (Snel 2013, 2015), and France (Shankland and Rosset 2015). Programs will no doubt spread to a larger number of countries in the future, but to do so, this requires specific research into cross-cultural adaptation of interventions. Indeed, similar concepts are considered differently according to the culture. For instance, Peterson and Seligman's (2004) work on character strengths and virtues highlighted the universality of valuing these specific attitudes and behaviors. However, there is also research underlining various differences in how values, virtues, and character strengths are understood and experienced across cultures. For example, several studies focusing on gratitude—which has been identified as one of the 24 character strengths—have shown distinct ways of considering gratitude in lay people

(Morgan et al. 2014), distinct outcomes following benefit receiving (as measured by vignettes; Naito et al. 2005) and differential impact of interventions (acts of kindness and gratitude; Layous et al. 2013).

Implementing Brief Positive Psychology Interventions in Schools

Following what has just been said, how should one go about implementing BPPIs in the classroom? We suggest three key elements to bear in mind when implementing a BPPI: (1) to work on the concepts as well as the practices; (2) to avoid presenting the concepts as personality traits (i.e., which students may interpret as remaining stable); and (3) to suggest or let students invent various options of practices and to encourage awareness and reflection on the appropriate dose of exercise necessary for oneself.

The first step of a BPPI has been suggested by Morgan et al. (2015), in line with their research studies: to start interventions by considering the concept in detail and to take into account possible relevant cultural and normative aspects. Morgan et al. (2014), for example, showed cross-cultural differences between the UK and the USA regarding lay representations of gratitude. In the UK, it was more frequently associated with politeness and customs. Hence, although gratitude is considered as a universal character strength (Peterson and Seligman 2004), its conceptualization is influenced by social norms which are necessary to address when working on gratitude enhancement.

Working on the concepts should also prevent participants from simply going through the motions of an intervention without understanding the mechanisms and implications of such practices. By enhancing meaning, the teacher also increases intrinsic motivation (Deci and Ryan 2002). Furthermore, as a specific application to education, the aim of BPPIs should not only be focused on helping young people become more grateful but also on understanding when and why one should experience and/or express gratitude, while keeping in mind that appropriateness depends on cultural norms (see for example the Buddhists' conception of gratitude which comprises being grateful for those who challenge them, as it gives the opportunity to develop abilities such as patience or detachment; for more details, see Gulliford et al. 2013).

The idea of starting by discussing the concept is to develop a critical stance rather than an unconditionally appreciative orientation. Morgan et al. (2015) draw the parallel with teaching youth to become "indiscriminately forgiving." Even though forgiveness has been shown to benefit mental health in several studies (e.g., Berry et al. 2001), it may not be appropriate in all contexts and can even be detrimental to individual well-being (Gordon et al. 2004; McNulty 2008). Morgan et al. (2015) extend this argument to gratitude, highlighting that gratitude experience could also entail indiscriminate responses. This type of introductory work should also be tailored according to age and cultural background.

A further reason why an initial reflection on concepts appears to be useful is that the way one defines the concept may also impact the participants' experience. For example, gratitude has been widely defined as a positive emotion. However, research studies have shown cross-cultural differences in lay person's self-reported experience of gratitude (e.g., Naito et al. 2005; Morgan et al. 2014). In the UK, gratitude appears to be more closely related to less agreeable emotions such as guilt, embarrassment, indebtedness, and awkwardness as compared with an American sample (Morgan et al. 2014).

Hence, working on the concept of gratitude with the students could lead to underlining the fact that less agreeable emotions can co-occur and that it they may also be part of the grateful

experience (Arthur et al. 2015). Morgan et al. (2015) highlight that, regarding gratitude, experiencing gratitude may be part of the experience of receiving intentional benefits from others and that if this aspect is not considered in the introduction to gratitude interventions, students might be surprised by the less agreeable affects spurred by gratitude practices and this might turn them off.

The second key element to bear in mind when implementing a BPPI is to avoid presenting the concept as being a personality trait (even though they are often presented as such in the literature on mindfulness, character strengths, or gratitude for instance). Indeed, personality traits are considered as stable and may induce a more "fixed" (rather than malleable, see Dweck 1999) representation of strengths or abilities. When students have a more "fixed" mindset, they believe their basic abilities, intelligence, and talents are fixed traits, while in a growth mindset, they understand that their talents and abilities can be developed through effort and persistence. While praise for ability is commonly considered to enhance school motivation, research studies have demonstrated that praise for intelligence has had negative consequences as it reduces students' effortful actions (for more details, see Dweck 1999). Several research studies have shown that brief interventions can alter implicit self-theories (e.g., Kamins and Dweck 1999). For example, Mueller and Dweck (1998) found that highlighting students' positive traits or talents could undermine their performance as they are less inclined and motivated to carry out effortful actions. Hence, focusing on traits (even if positive) may be counterproductive.

While most strength-based interventions focus on helping participants identify their strengths, less attention is devoted to encourage efforts and practice. Louis (2011) carried out a study comparing "talent identification" (fixist approach) with "strength development" (malleable approach). In the talent condition, there was a significant shift towards more fixist self-theories compared with the malleable and the control condition. Teachers should thus remain cautious in their use of strength identification practices and rather focus on how it is possible to develop abilities through attention and effort, in order to avoid possible detrimental effects of such interventions. In the same way as Louis (2011), Biswas-Diener et al. (2011) suggest moving from a fixist approach ("identify your strengths and use them") to a more dynamic approach ("develop strengths through practicing"). In the dynamic approach, strengths are considered as potentials "that can be cultivated through enhanced awareness, accessibility, and effort" (Biswas-Diener et al. 2011, p. 1).

The third key element for BPPI implementation was recommended by Sin and Lyubomirsky's meta-analysis (2009): it appears to be more effective to vary activities in one domain (for example, trying out the four BPPIs of the same domain). The authors also highlighted a dose–effect relationship: in one study, there was no effect on well-being when individuals carried out one act of kindness per day for 5 days, while there was a positive effect when carrying out five acts of kindness on 1 day.

In the following section, we will present four BPPIs for each of the domains presented in the first section, all of which can easily be applied in school settings and which have the potential to both increase learning and well-being: (1) mindfulness, (2) strengths, (3) gratitude, and (4) positive relationships. Although no age group is specified for each practice presented, the mindfulness, strengths, and positive relationship practices have been used from kindergarten to university students, while gratitude interventions have recently been adapted to children starting from 6 years old (Rosset and Shankland 2015).

Mindfulness BPPIs

It is important to note that the four examples of "easy-to-implement" practices given below have only been assessed when part of a larger program. Further research examining specific effect sizes is encouraged, but the aim and competence developed by these practices are similar: focusing on the present moment and training one's mind to come back to the object of focus each time it wanders away.

Mindfulness No. 1: Mindful Bell

Students can be introduced to mindfulness practice by paying attention to present-moment experience with a simple bell reminder. The mindful bell can also be used as a means of training attention to focus on sound as long as possible. When the mind wanders, one tries to refocus it on the sound. The teacher can say: "Let's all be quiet so we can hear the bell. I'll ring the bell, and you can try to listen until you can't hear the sound anymore." The mindfulness bell has been shown to be effective in quieting the classroom within 1 week's time (Kabat-Zinn 2013). Children can also be told to "put on their mindfulness bodies" in which they know to be silent sitting up straight. This technique has been used in at-risk schools in New York City and in Oakland, California, in classes where a significant number of children have ADHD and other learning and behavioral issues (Kabat-Zinn 2013).

Mindfulness No. 2: Brief Body Scan

The body scan is one of the classic mindfulness practices. It involves inviting students to focus selectively on different parts of their body, making their way up from the bottom of their feet to the top of their heads. It can be done lying down but also seated. For obvious reasons, staying seated may be more suitable to many classrooms and the .b program (Burnett 2013) has come up with an appealing brief body scan practice called the "FOFBOC," which stands for "Feet On Floor, Bum On Chair." In this 8-min practice, students are instructed to close their eyes and focus their attention on the sensation of their feet on the floor, continuing up the body and feeling their weight on the chair. Research examining the .b program in its entirety found promising results in terms of decreasing symptoms of depression and stress and increases in well-being (Kuyken et al. 2013).

Many resources are available online to assist in guiding such exercises. Other resources can be found in books for teachers and educators (e.g., Froh and Parks 2013; Jennings 2015; Kaiser Greenland 2010; Parks 2013; Parks and Schueller 2014; Snel 2013, 2015).

Mindfulness No. 3: Mindful Breathing

Mindful breathing is another classic practice that has found creative interpretations for students, again via the .b program. Called "7/11," this practice involves asking students to count to "7" on the in-breath and to "11" on the out-breath (Burnett 2013). Note that the counting is not necessarily in seconds; it can simply be counting beats and can even increase towards the end. The point is to increase awareness of the breath and the present moment. Again, when used as part of the entire .b program, students showed marked decreases in depressive symptoms and stress and increases in well-being (Kuyken et al. 2013).

Mindfulness No. 4: Caring Mindfulness

Although this practice is not usually part of mindfulness in schools curricula, we selected it in response to growing concern regarding the lack of attention given to developing compassion within classical mindfulness-based interventions. Mindful awareness practices may not be sufficient in ensuring ethical behaviors. In order to better develop other-focused and compassionate mindsets, the term "caring mindfulness" was coined (Ricard 2015).

The following practice is based on Cognitive Behavioral Compassion Training for Children (CBCT-C, Ozawa-de and Dodson-Lavelle 2011). Students are asked to focus attention on their present state and on their aspiration to feel happy. They are then asked to think of other children and classmates and to consider that they also wish to be free from suffering. Students are then encouraged to wish others to be free of unhappiness. A further step suggests committing to assist classmates to feel happier. This type of practice appears to foster compassion (Jazaieri et al. 2012), which leads to enhanced well-being (Reddy et al. 2013).

Although it may be considered as useful to initiate present-moment attention practices in youth, research studies underline that the effects on academic and well-being outcomes are related to practice time (e.g., Huppert and Johnson 2010). Hence, if an exercise is proposed once a week and students do not practice at any other moment during the week, the potential benefits of these practices may be lackluster.

Characters Strengths BPPIs

Character Strength No. 1: Identifying Strengths

Introducing the idea of strengths can be done relatively seamlessly in cultures in which it is uncommon to directly address strengths by asking students to think of someone that they admire and noting down why (Linkins et al. 2014). As students propose reasons (e.g., "He's courageous; she perseveres despite setbacks; he makes me laugh; she knows how others feel…"), the teacher can then list the different reasons on the board. Students quickly see how many different ways there are to highlight people's positive sides. If desired, the teacher can then present different taxonomies of strengths (e.g., Values In Action, Peterson and Seligman 2004; CAPP's Realise2, see Linley et al. 2010b). Although the exercises in the previous sections can be done largely independent of each other, this exercise serves as a launching point for the other strength-based interventions. Indeed, identifying strengths is not in itself effective in increasing sustainable well-being or performance (for more details, see Seligman et al. 2005). Conversely, as highlighted above, it may lead to fixist implicit self-theories which can be detrimental to both aspects. This is why identifying strengths should be presented as a means of raising awareness of potential development that can actually happen only through effortful actions (see "Character Strength No. 3: Cultivating Strengths").

Character Strength No. 2: Strengths 360°

It is important to remember that thinking about one's own strengths may be particularly difficult for certain students and in certain cultures. It may thus be easier to think about one's own strengths with the help of outside observers. In the strengths 360° exercise, students are given a standard strengths list by the teacher with which they thereafter ask five people from different contexts (for instance a teacher, a friend, and a parent) to identify some of their

strengths. Teachers should, however, remain cautious in order reduce potential self-affirming biases or pigeon-holing whereby students become less likely to develop strengths other than those identified by their entourage. One way to avoid this problem is to ask students to write down different strengths than those given by their family or friends. For example, they could explicitly tell their parents the strengths they have already identified and ask them whether they can figure out other ones.

One study with over 500 students found that students participating in a 6-week strength-based program which involved finding their top strengths, sharing them and completing strengths diaries showed significant improvements as compared to a control group on academic expectations, self-efficacy, extrinsic motivation, and perceptions of ability (Austin 2005). However, a study carried out by Seligman et al. (2005) comparing the efficacy of five PPIs showed that identifying strengths yielded only short-term effects with adults, whereas using strengths in a new way each day during 1 week (often referred to as labelled "cultivating signature strengths," see below) increased well-being up to 6 months later.

Character Strength No. 3: Cultivating Strengths

According to Peterson and Seligman (2004), "signature strengths" represent one's five top strengths. Their research suggests that using at least one of our signature strengths in a new way during 1 week leads to enhanced subjective well-being (Seligman et al. 2005). In this exercise, students are asked to choose one of their top strengths and to work in pairs in order to find out how to use this strength in the classroom, daily, in a new way. Students may need some examples to stimulate finding and novel ideas. For example, if one of the signature strengths is "curiosity," the suggestion may be to note a newly discovered piece of information each day such as "Eating an apple is more efficient that a cup of coffee to keep you awake."

In order to avoid falling into the trap of social comparison ("my strength is better than yours" or "I'm stronger on that than you are"), students may work in pairs or in small groups on one strength they wish to develop (all the members of the group will work on the same strength during the week). This is one way to encourage cooperation as they work together to find ideas that will fuel their practice. It may also increase motivation to carry out the practices as they see others doing so.

Another way to go about cultivating strengths would be that the teacher suggests working on specific strengths that have been identified by research studies as leading to positive academic and well-being outcomes. For example, studies on hope have shown that this strength was related to students' interest and intrinsic motivation (Pekrun et al. 2002), predicted academic achievement in middle school students and college students (reported in Park and Peterson 2009a), enhanced goal-directed thinking, and increased satisfaction with life (Marques et al. 2011). Other strengths that have been related to achievement are curiosity, perseverance, and temperance strengths (for more details, see Park and Peterson 2009b).

When Haidt (2002) carried out a study on character strengths with university students, he suggested a list of five to eight ways of working on each one of the strengths. This list could be adapted to school-aged children and adolescents, and different ways of going about how to use strengths in new ways could be addressed. For example, if one chooses to work on perseverance, Haidt's suggestions appear to be adapted to school-aged groups:

- Finish work ahead of time.
- Notice your thoughts about stopping a task and focus again on the task at hand.
- Set a goal (e.g., for exercise or studying) and stick to it.
- When you wake up in the morning, think of one thing you want to get done that day even though it could be put off until the next day.

Suggestions on curiosity development are also adapted to any age group:

- Ask question in class.
- Explore the stacks in the library, browse widely, or pick an interesting looking book each day and spend 20 min skimming it.
- Eat something new that you never otherwise would have tried.

If one focuses on hope in younger groups, Haidt's suggestions need more adaptation. Here are a few (although they have not yet been included in research studies):

- Set goals that will impact your life and then set step by step goals that you can carry out daily in order to enhance feelings of mastery.
- Keep a journal and, every night, record a decision you made that day that will impact your life in the long run.
- Identify how other people help you work towards your goals.

Character Strength No. 4: Secret Strength Spotting

The "secret strengths spotting" exercise aims at raising awareness of others' strengths and has significant potential for improving the classroom climate (Linkins et al. 2014). In this practice, each student is assigned a secret partner. Each student observes this secret partner for 1 week and notes down different strengths and when they were used. A list of the different strengths posted in a visible place in the classroom can help remind students of the diversity of their choices. At the end of the week, the partners reveal their identities and the strengths they observed. This practice helps students identify their strengths, while also reinforcing and in some cases creating social relationships.

In line with the preceding exercises, Linkins et al. (2014) suggested identifying classroom signature strengths (a practice they named "The Sum of Our Strengths"). After students completed the VIA Survey, they determine the group's signature strengths by aggregating the VIA data. Then they work to identify various ways in which the group already used these strengths and how it could be possible to use them in new ways in the classroom in order to enhance well-being and achievement. It could also be proposed to work on how individual strengths are complementary to other students' strengths and to think of how this complementarity can be developed in the classroom. This may be particularly useful in age groups or classrooms in which social comparison appears to have detrimental effects on class climate.

A further avenue of research on school-based strengths interventions has been developed in Australia (White and Waters 2014), by integrating the exercises into existing lessons (English) and experiences (sports, counseling). These types of initiatives need further validation in order to assess their specific impact.

Gratitude BPPIs

Gratitude No. 1: the Gratitude Journal

One of the most widely studied gratitude practices is the gratitude journal whereby a person notes things in their life that they feel grateful for (e.g., Emmons and McCullough 2003). This can be easily adapted to the classroom environment, where teachers can propose that students note three things they are grateful for before class begins. Froh et al. (2008) found that students who noted up to five things they were grateful on daily basis for 2 weeks showed increases in optimism, life satisfaction, and satisfaction with the school experience as compared to a hassles condition and no-treatment control. There are many variants of this practice, including: "Three Good Things" (Lyubomirsky 2008), "Three things I'm lucky for" (Shankland and Rosset 2015), "Three funny things" (Gander et al. 2012), and "What went well today" (Grenville-Cleave 2012).

Gratitude No. 2: the Gratitude Letter

A second frequently used gratitude practice in research studies is the gratitude letter (e.g., Seligman et al. 2005; Froh et al. 2009). Students are asked to write a letter to someone significant to them. Writing about how this person has been supportive or has been a role model has been shown to enhance feelings of social relatedness. Although this exercise is not time consuming, some students may find it hard to write such a personal letter in the classroom. It could, however, be integrated into specific language lessons to be proposed as a written exercise as well as a BPPI as suggested by White and Waters (2014) for strength interventions.

Gratitude No. 3: the Gratitude Graph

Another intervention that is easily integrated into many different subjects and students of all ages is the gratitude graph (Zakrzewski 2013). Students are given sticky notes and asked to write one (or more) things that they are grateful for on each note. The students can then plot the sticky notes on a classroom graph, with different categories, such as people, places, events, food, accomplishments, etc. This serves as a reminder of all the different things one may feel grateful for. It also lends itself well to being both an individual and group activity and can be changed every week, every month, or every season, depending on the classroom. This is also an activity that lends itself easily to being school-wide and thus also encouraging shared identity and shared goals.

Gratitude No. 4: the Gratitude Box

Similar to the gratitude graph is the gratitude box (O'Grady 2013). Teachers give students strips of paper or simply small pieces of paper, and each student writes something that they are grateful for. At the end of the week, the pieces of paper are read aloud (though anonymously). Like the gratitude graph, this practice serves as a helpful reminder for students of all the things people can feel grateful for and has been found to improve the atmosphere of the classroom (O'Grady 2013). Variants on this activity can be having different students read the tags each week and encouraging discussion around different ideas the students come up with.

Although these last two BPPIs have not been tested in randomized control trials, they have been hypothesized to contribute to the development of an appreciative outlook. They might thus be used within a broader curriculum aiming at developing gratitude. Another practice that lends itself easily to students of different ages and which can be used in many different subjects is: “Where did that come from?” (Elias 2014). In this exercise, the teacher picks up common objects and asks the students, either individually or as a group, to explain where the object came from or the related question: “How did that get here?” For instance, if asked where a pencil comes from, students work backwards through the various steps that led to the pencil arriving in their classrooms. They can use their imagination or can use other sources—the Internet or the library—to expand the activity. Tracing common objects (a piece of paper, a sweater, the window, a pair of glasses…) back to their origins helps students develop an appreciation not only of all that is at their disposal but also of the work of various people that made it possible. This could then lead to the development of both types of gratitude: towards human beings and towards other self-transcending elements such as nature.

Other gratitude interventions for youth exist and are indeed promising (e.g., Froh et al. 2014) but have not been detailed here as they are do not fit the criteria of brevity of the intervention (five sessions in the case of Froh et al. 2014). The goal of the program tested by Froh and his colleagues was to work on the social-cognitive perceptions that elicit gratitude by increasing their understanding of intentions, cost, and benefits. Students who took part in the program reported increases in benefit appraisals and grateful mood and wrote 80 % more thank you cards to their teacher-parent association compared with the students in the control condition.

Positive Relationship BPPIs

Positive Relationship No. 1: Cooperative Learning Groups

Cooperative learning is an instructional technique where small groups of students work together on a task and then each group teaches the others. After each group has assembled the necessary information, they then proceed to teach the other groups about their topic. Students are told that part of their responsibility is to help each other, and they quickly understand that their grasp of the material and thus their grade depends on the success of their fellow students (not the reverse as is often the case). Implementing cooperative learning groups can noticeably improve classroom climate and has been shown to help students treat each other with kindness (Johnson and Johnson 1987).

Positive Relationship No. 2: Active Constructive Responding

This BPPI is based on research on active constructive responding as well as inspired by Peterson’s suggestion for a “But Free Day” (Peterson 2013). Research in communication patterns has found that the way in which we respond to other people’s good news and bad news can greatly influence the quality of our relationships and our psychological well-being (Gable et al. 2004; Gottman 1994). Gable et al. (2004) categorized a matrix of four possible responses to a colleague/spouse/classmate’s good or bad news. We may respond in an active or passive manner and in a constructive or destructive manner. As a teacher for instance, a student telling us they have a lead role in the school play could be responded to in active destructive way (“Are you kidding? Well, that will make devoting time to school work that much more

difficult"); a passive destructive way ("Uh-huh, good luck not getting overwhelmed"); a passive constructive way ("Uh-huh, good for you…"); or an active constructive way ("Really? Wow, you must be proud. You really worked hard on the audition didn't you? What's the play? What part did you get?").

Active constructive responding has been studied in couples (Gable et al. 2004), and its relevance to the school environment should not be overlooked. The emphasis on critical thinking in school can carry over to our relationships, resulting in the possibility of more easily thinking of what is wrong with someone's argument; active constructive responding therefore provides a helpful way to see that we also learn—and sometimes more—by seeing what is right. This relates to Peterson's (2013) plea for "but-free days," enjoying someone's good news without immediately pointing out the downsides to it, the potential "but." One of Peterson's examples was announcing to colleagues an accepted conference presentation in Mexico, only to be met with "buts" ("But you don't know Spanish"; "But what about the crime…"). This type of practice could be proposed in classroom settings, for both students and teachers (as teachers are also often involved in contributing "but" responses).

Active constructive responding may be difficult for younger students but may be accessible to secondary students. Within this group, we acknowledge that is may be mainly relevant in the context of friendships and romantic relationships. More work no doubt needs to be done in this area; our intention including it here is to emphasize to students the importance of adopting a more positive, less critical-by-default, mode of responding to others.

Positive Relationship No. 3: Supportive Sticky Notes

The following BPPI stems from research in gratitude and positive relationships. Students are given a series of sticky notes and asked to write something they appreciate about another person. The other person could be a classmate, a fellow student, a teacher, or even someone the school community more broadly (Random Acts of Kindness Foundation 2014). In order to reduce the potential risk of reinforcing cliques and of increasing feelings of exclusion in other students, one idea is that the teacher randomly assigns a person for whom each student is asked to write a sticky note. The students then place the sticky note where the person will see it: a person's desk or locker, a cleaning cart or blackboard, etc. It could be helpful to combine this with the strengths spotting practice, in that students will have observed the person's strengths, which will give ideas to write on the sticky notes.

Positive Relationship No. 4: Secret Acts of Kindness

The following practice has been used in alternative educational settings to foster a positive classroom climate. It has been labelled in the present article "secret acts of kindness" as during 1 week or even 1 month, each student is randomly assigned a secret partner towards whom he or she is asked to be more caring. Taking care of others implies paying more attention to their needs, their projects, their habits, and trying to help them on their way. This may involve helping out with homework, or helping to find a lost object, or giving a pencil when one has observed that the student is missing one. Research has found that acts of kindness increase well-being (Lyubomirsky et al. 2005). Furthermore, positive relationships and deliberately cultivating kindness in schools have been shown to decrease the negative effects of bullying (Clark and Marinak 2012). Acts of kindness not only develop social bonds but also enhance individual well-being. However, as evoked earlier, in the original study by Lyubomirsky et al.

(2005), a dose–effect was highlighted: five acts of kindness in the same day increased well-being while one act per day during 5 days did not. This may be explained by the fact that carrying out five acts of kindness might modify self-concepts, while one act of kindness would not be sufficient in changing one's impression of being a kind person.

General Discussion and Perspectives on BPPIs

The present review of BPPIs focused on highlighting the potential benefits in a classroom setting, making teachers and educators more familiar with these practices. Although still emerging, experimental studies on mindfulness interventions in schools are encouraging in that they highlight effects on social competencies and emotion regulation which have both been shown to yield long-term positive interpersonal outcomes, as well as quality of emotional and behavioral adjustments, and even academic abilities (Burt et al. 2008; McClelland et al. 2006; Robinson et al. 2013). Academic achievement may also be positively impacted by mindfulness practices as it develops attentional skills (for more details, see Waters et al. 2015). However, further research should look more specifically into the effects of specific practices and the mechanisms by which they lead to positive outcomes in order to be able to recommend using certain practices rather than other in the school context.

While working on gratitude has the potential to increase the experience of positive emotions and feelings of relatedness, more research is needed to identify how pedagogical methods impact how students understand and experience gratitude and whether looking for the positive may eventually backfire (for more details see Morgan et al. 2015). In what concerns character strengths, they have the potential to increase self-esteem and self-efficacy beliefs, which in turn are beneficial to well-being and academic achievement. However, we suggest focusing more on group signature strengths in order to reduce the effects of social comparison on class climate. This may constitute a further research avenue.

With regards to cooperation and positive relationship enhancement in schools, this appears to be most important as school climate and student distress are areas of concern. Although the four domains of BPPI have been presented separately, they can also be combined, as for example in working on group signature strengths. However, this may require greater teacher training in order to help articulate various concepts, the theories they rely on, and how the combination may serve specific goals in terms of student well-being and performance.

The domains and interventions described above are by no means exhaustive. There is empirical work supporting PPIs in other domains (e.g., Green et al. 2007; Marques et al. 2011), although many involve hour-long sessions over several weeks. It is important to keep in mind the original goal of PPIs in the classroom setting which is to find ways to improve student well-being and learning. If practices are not able to be diffused on a large scale, one could argue that their value is diminished to a considerable degree.

There is clearly a need for more studies examining the interventions described above, for more to be validated through randomized controlled trials. Up to now, most positive education interventions carried out have been pilot studies (Waters 2011). Thus, more research studies are needed to eventually validate these interventions within the school context. We thus hope this review will encourage teachers not only to try the interventions listed here but also to collaborate with researchers to carry out further studies. This interdisciplinary work would improve student and teacher well-being. These interventions also highlight the tight link between individual and collective well-being; far from being mutually exclusive, much of

the recent research in positive psychology shows how individual and collective well-being feed each other.

BPPI Limitations and Potential Pitfalls

As mentioned in the second section, some key recommendations can be put forward to reduce potential detrimental effects of BPPIs. For each domain, we will suggest particular cautions and reflections. Recent research into mindfulness practices has highlighted potential detrimental effects such as increased false memories (Wilson et al. 2015), which might interfere with learning. While this phenomenon is supposedly linked to judgment-free thoughts and feeling that arise through mindfulness practices, in the mindfulness BPPIs presented above, the exercises rather focus on present-moment attentional training which should lead to benefits for attentional processes. However, it is essential that teachers remain informed of research results through mindfulness networks in order to adapt practices according to most recent findings.

Until recently, strength-based research focused on working on "signature strengths" (top five character strengths), with some scholars arguing that it was more efficient and energizing to work on top strengths rather than on less developed strengths (see, for instance, Buckingham and Clifton 2001). However, evidence suggests that both types of interventions are effective. In a study, 375 adults were randomly assigned to either using their top five strengths or five lesser strengths in a new way or to a placebo control condition (i.e., early memories). The results showed that both interventions led to increased happiness up to 3 months post-intervention and decreased depressive symptoms. Furthermore, contrary to past assumptions, participants found working with strengths equally rewarding (enjoyment and benefit) in both conditions. In addition, it is noteworthy that participants who reported higher levels of strengths at the beginning of the study benefitted more from working on lesser strengths rather than on their signature strengths, while those with lower levels of strengths tended to benefit more from working on their signature strengths (Proyer et al. 2015).

These findings lead the way to possible combinations of interventions (which have been tested in pilot studies previously, see for example Haidt 2002). It also highlights that no matter which strength is chosen (as suggested in the character strengths BPPIs), as long as it is not presented as a trait (see second section), it may lead to positive outcomes (see first section). Another debate, however, has emerged regarding what can be called strengths exaggeration, which can, in some instances, be considered as a disorder (Peterson 2006). Similarly, Linley (2008) suggested that strength overuse may yield negative consequences. For example, excess of honesty can be hurtful to others and harmful for relationships (for more details, see Bègue 2015). Investigation in this field would be useful for ensuring how strengths-based interventions may consistently remain beneficial.

With regards to gratitude, a recent critique has been raised as to how PPIs tend to focus on the effects (the aim being to enhance student well-being; e.g., Froh et al. 2014) rather than on the intrinsic value of gratitude. Following Kristjansson's (2013a) suggestion that students be led to conceive virtue as its own reward rather than as a mere means to some other end, Morgan et al. (2015) call for caution in programs that exclusively look for the positive (e.g., positive intentions and positive affect) with a potential risk of blinding them to the negative aspects (or "bogus benefaction"). The educational task they propose is to provide students with opportunities to reflect on the complexities of gratitude, for example through the use of stories

drawn from literature or real life. Morgan et al. (2015) offer material that may help teachers implement these types of interventions in order to promote the exploration of gratitude.

In terms of positive relationships, we suggested that active constructive responding could reduce the critical-by-default mode in students, thereby enhancing positive relationships as has been shown in studies on couples (Gable et al. 2004). Recent work in which students were encouraged to practice at home with a close friend or partner found equivocal effects as the students expressed qualms about lack of ingenuity. It is thus important for the participants to be reminded that the goal is not to recognize only positive aspects while ignoring negative aspects but rather to be less blind-sided by potential negative effects and take the time to respond actively and constructively to positive news as well.

As any exercise, in order to maintain sustainable benefits, it is necessary to revisit them regularly. In order to maintain student motivation, this can be done by using variations of a practice. Numerous books and websites may inspire these variants, while waiting for more extensive research into these practices.

Conclusion

The aim of the present review was to make positive psychological interventions more widely available in schools where it has tended to be dominated by specialist training programs and to encourage further research in this field. The BPPI domains presented in this article have been linked to student achievement, as well as to psychological and social well-being.

Teachers and researchers in positive psychology are natural allies. At its core, education is about nurturing strengths, about growth and learning. Furthermore, psychological and social well-being are key concerns for teachers and other educators and for people working in the field of positive psychology. We hope the work emerging in positive education is just the beginning, and we hope that the research and interventions presented in this review help move both fields forward.

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References

Adler, M. G., & Fagley, N. S. (2005). Appreciation: individual differences in finding value and meaning as a unique predictor of subjective well-being. *Journal of Personality, 73*, 79–114.

Algoe, S. B. (2012). Find, remind, and bind: the functions of gratitude in everyday relationships. *Social and Personality Psychology Compass, 6*, 455–469.

Algoe, S. B., Fredrickson, B. L., & Gable, S. L. (2013). The social functions of the emotion of gratitude via expression. *Emotion, 13*, 605–609.

Algoe, S. B., Haidt, J., & Gable, S. L. (2008). Beyond reciprocity: gratitude and relationships in everyday life. *Emotion, 8*, 425–429.

Antonovsky, A. (1996). The salutogenic model as a theory to guide health promotion. *Health Promotion International, 11*, 11–18.

Arguís Rey, R., Bolsas Valero, A. P., Hernández Paniello, S., Salvador Monge, M. (2011). *Revista AMAzônica*, LAPESAM/GMPEPPE/UFAM/CNPq/EDUA–ISSN 1983–3415. 88. Ano 4, VI, 1, 88–113.

Aronson, E., & Patnoe, S. (2011). *Cooperation in the classroom: the jigsaw method*. Beverly Hills: Sage Publishing Company.

Arthur, J. (2005). The re-emergence of character education in British education policy. *British Journal of Educational Studies, 53*, 239–254.

Arthur, J., Kristjansson, K., Gulliford, L., & Morgan, B. (2015). *An attitude for gratitude research report*. Birmingham: University of Birmingham, Jubilee Centre for Character and Virtues.

Austin, D. (2005). The effects of a strengths development intervention program upon the self-perception of students' academic abilities. *Dissertation Abstracts International, 66*, 1631A.

Baer, R. A., Smith, G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: the Kentucky inventory of mindfulness skills. *Assessment, 11*, 191–206. doi:10.1177/1073191104268029.

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*, 27–45. doi:10.1177/1073191105283504.

Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York: Freeman.

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology, 5*, 323–370.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529.

Bègue, L. (2015). *Psychology of good and evil*. New York: Oxford University Press.

Berry, J. W., Worthington, E. L., Jr., Parrott, L., III, O'Connor, L., & Wade, N. G. (2001). Dispositional forgiveness: development and construct validity of the Transgression Narrative Test of Forgiveness (TNTF). *Personality and Social Psychology Bulletin, 27*, 1277–1290.

Biswas-Diener, R., Kashdan, T. B., & Minhas, G. (2011). A dynamic approach to psychological strength development and intervention. *Journal of Positive Psychology, 6*, 106–118.

Broderick, P. C. (2013). *Learning to breathe: a mindfulness curriculum for adolescents to cultivate emotion regulation, attention, and performance*. Oakland: New Harbinger Publications.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822–848. doi:10.1037/0022-3514.84.4.822.

Buckingham, M., & Clifton, D. O. (2001). *Now, discover your strengths: how to develop your talents and those of the people you manage*. London: Simon & Schuster.

Burnett, R. (2009). Mindfulness in schools: learning lessons from the adults, secular and Buddhist. *The Buddhist Studies Review, 28*, 79–120.

Burnett, R. (2013). *Mindfulness in schools*. Retrieved from http://tedxtalks.ted.com/video/Mindfulness-in-Schools-Richard.

Burke, C. (2010). Mindfulness-based approaches with children and adolescents: a preliminary review of current research in an emergent field. *Journal of Child and Family Studies, 19*, 133–144.

Burt, K. B., Obradović, J., Long, J. D., & Masten, A. S. (2008). The interplay of social competence and psychopathology over 20 years: testing transactional and cascade models. *Child Development, 79*, 359–374. doi:10.1111/j.1467-8624.2007.01130.x.

Cain, G., & Carnellor, Y. (2008). Roots of empathy: a research study on its impact on teachers in Western Australia. *Journal of Student Wellbeing, 2*, 52–73.

CASEL (2010). The benefits of school-based social and emotional learning programs. Highlights from a major new report. Chicago: University of Illinois at Chicago SEL Research Group & The Collaborative for Academic, Social and Emotional Learning.

Choi, J., Johnson, D. W., & Johnson, R. (2011). Relationship among cooperative learning experiences, social interdependence, children's aggression, victimization, and prosocial behaviors. *Journal of Applied Social Psychology, 41*, 976–1003.

Christenson, S. L., Reschly, A. L., & Wylie, C. (2012). *Handbook of research on student engagement*. New York: Springer.

Clark, S., & Marinak, B. (2012). The attributes of kindness: using narrative and expository texts to confront the "casualty of empathy". *International Journal of Learning, 17*, 295–306.

Clifton, D. O., & Harter, J. K. (2003). Investing in strengths. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship: foundations of a new discipline* (pp. 111–121). San Francisco: Berrett-Kohler.

Cohen, J. (2006). Social, emotional, ethical, and academic education: creating a climate for learning, participation in democracy, and well-being. *Harvard Educational Review, 76*, 201–237.

Cowger, E. L., & Torrance, E. P. (1982). Further examination of the quality of changes in creative functioning resulting from meditation (zazen) training. *Creative Child and Adult Quarterly, 7*, 211–217.

Davidson, R., & Lutz, A. (2008). Buddha's brain: neuroplasticity and meditation. *IEEE Signal Process Magazine, 25*, 176–174.

Dawood, R. (2013). Positive psychology in school-based psychological intervention: a study of the evidence-base. *Procedia - Social and Behavioral Sciences, 113*, 44–53.

Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. Rochester: University of Rochester Press.

Dekeyser, M., Raes, F., Leijssen, M., Leysen, S., & Dewulf, D. (2008). Mindfulness skills and interpersonal behaviour. *Personality and Individual Differences, 44*, 1235–1245. doi:10.1016/j.paid.2007.11.018.

Deplus, S., Lahaye, M., & Philippot, P. (2014). Les interventions psychologiques basées sur la pleine conscience avec l'enfant et l'adolescent: les processus de changement. *Revue Québécoise de Psychologie, 35*, 71–99.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542–575.

Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self- esteem. *Journal of Personality and Social Psychology, 68*, 653–663.

Diener, E., & Seligman, M. E. P. (2002). Very happy people. *Psychological Science, 13*, 80–83.

Diener, E., Suh, E., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: three decades of progress. *Psychological Bulletin, 125*, 276–302.

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*, 405–32.

Dweck, C. S. (1999). *Self theories: their role in motivation, personality, and development*. Hove: Psychology Press, Taylor and Francis.

Elias, M. (2014). *Habits of heart: helping students reflect and act on gratitude*. Available at: http://www.edutopia.org/blog/heart-habits-gratitude-students-reflect-act-on-maurice-elias.

Emmons, R. A. (2004). Gratitude. In M. E. P. Seligman & C. Peterson (Eds.), *The VIA taxonomy of human strengths and virtues*. New York: Oxford University Press.

Emmons, R., & McCullough, M. (2003). Counting blessings versus burdens: an experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology, 84*, 377–389.

Emmons, R. A., & McCullough, M. E. (2004). *The psychology of gratitude*. New York: Oxford University Press.

Estrada, C. A., Isen, A. M., & Young, M. J. (1997). Positive affect facilitates integration of information and decreases anchoring in reasoning among physicians. *Organizational Behavior and Human Decision Processes, 72*, 117–135.

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology, 2*, 300–319.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: the broaden-and-build theory of positive emotions. *American Psychologist, 56*, 218–226.

Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought–action repertoires. *Cognition & Emotion, 19*, 313–332.

Froh, J. J., & Parks, A. C. (2013). *Teaching positive psychology: a practical handbook for the classroom*. Washington, DC: American Psychological Association.

Froh, J. J., Bono, G., & Emmons, R. A. (2010). Being grateful is beyond good manners: gratitude and motivation to contribute to society among early adolescents. *Motivation & Emotion, 34*, 144–157.

Froh, J. J., Bono, G., Fan, J., Emmons, R. A., Henderson, K., Harris, C., Leggio, H., & Wood, A. M. (2014). Nice thinking! An educational intervention that teaches children to think gratefully. *School Psychology Review, 43*, 132–152.

Froh, J. J., Emmons, R. A., Card, N. A., Bono, G., & Wilson, J. (2011). Gratitude and the reduced costs of materialism in adolescents. *Journal of Happiness Studies, 12*, 289–302.

Froh, J. J., Kashdan, T. B., Ozimkowski, K. M., & Miller, N. (2009). Who benefits the most from a gratitude intervention in children and adolescents? Examining positive affect as a moderator. *Journal of Positive Psychology, 4*, 408–422.

Froh, J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: an experimental study of gratitude and subjective well-being. *Journal of School Psychology, 46*, 213–233.

Gable, S., Reix, E., Impett, E., & Asher, E. (2004). What do you do when things go right? The intrapersonal and interpersonal benefits of sharing positive events. *Journal of Personality and Social Psychology, 87*, 228–45.

Gander, F., Proyer, R. T., Ruch, W., & Wyss, T. (2012). Strength-based positive interventions: further evidence for their potential in enhancing well-being. *Journal of Happiness Studies, 14*, 1241–1259.

Garrison Institute Report. (2005). *Contemplation and education: a survey of programs using contemplative techniques in K-12 educational settings: a mapping report*. New York: The Garrison Institute.

Gillham, J., Abenavoli, R., Brunwasser, S., Linkins, M., Reivich, K., & Seligman, M. (2013). Resilience education. In S. David, I. Boniwell, & A. Conley Ayers (Eds.), *The Oxford handbook of happiness* (pp. 609–630). Oxford: Oxford University Press.

Gordon, K. C., Burton, S., & Porter, L. (2004). Predicting the intentions of women in domestic violence shelters to return to partners: does forgiveness play a role? *Journal of Family Psychology, 18*, 331–338.

Gottman, J. M. (1994). *What predicts divorce? The relationship between marital processes and marital outcomes*. Hillsdale: Erlbaum.

Graziano, P. A., Reavis, R. D., Keane, S. P., & Calkins, S. D. (2007). The role of emotion regulation in children's early academic success. *Journal of School Psychology, 45*, 3–19. doi:10.1016/j.jsp.2006.09.002.

Green, L. S., Grant, A. M., & Rynsaardt, J. (2007). Evidence-based life coaching for senior high school students: Building hardiness and hope. *International Coaching Psychology Review, 2* 24–32.

Green, L. S., Oades, L. G., & Robinson, P. L. (2012). Positive education programs: integrating coaching and positive psychology in schools. In C. van Nieuwerburgh (Ed.), *Coaching in education: getting better results for students, educators, and parents* (pp. 115–132). London: Karnac Books.

Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books, Inc.

Grenville-Cleave, B. (2012). *Introducing positive psychology: a practical guide*. Icon Books.

Gross, J. J. (2002). Emotion regulation: affective, cognitive, and social consequences. *Psychophysiology, 39*, 281–291.

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: a meta-analysis. *Journal of Psychosomatic Research, 57*, 35–43.

Grube, J. A., & Piliavin, J. A. (2000). Role identity, organizational experiences and volunteer performance. *Personality and Social Psychology Bulletin, 26*, 1108–1119.

Gulliford, L., Morgan, B., & Kristjansson, K. (2013). Recent work on the concept of gratitude in philosophy and psychology. *Journal of Value Inquiry, 47*, 285–317.

Gumora, G., & Arsenio, W. F. (2002). Emotionality, emotion regulation, and school performance in middle school children. *Journal of School Psychology, 40*, 395–413. doi:10.1016/S0022-4405(02)00108-5.

Haidt, J. (2002). *It's more fun to work on strengths than weaknesses (but it may not be better for you)*. Available at: http://people.stern.nyu.edu/jhaidt/strengths_analysis.doc (accessed April 9, 2015).

Hertz-Lazarowitz, R. (1983). Prosocial behavior in the classroom. *Academic Psychology Bulletin, 5*, 319–338.

Hertz-Lazarowitz, R., Sharan, S., & Steinberg, R. (1980). Classroom learning style and cooperative behavior of elementary school children. *Journal of Educational Psychology, 72*, 99–106.

House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science, 241*, 540–45.

Huebner, E. S., Suldo, S. M., & Gilman, R. (2006). Life satisfaction. In G. Bear & K. Minke (Eds.), *Children's needs III: development, prevention, and correction* (pp. 357–368). Bethesda: NASP.

Huppert, F., & Johnson, D. (2010). A controlled trial of mindfulness training in schools: the importance of practice for an impact on well-being. *Journal of Positive Psychology, 5*, 264–274.

Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology, 52*, 1122–1131.

Jazaieri, H., Jinpa, G. T., McGonigal, K., Rosenberg, E. L., Finkelstein, J., Simon-Thomas, E., et al. (2012). Enhancing compassion: a randomized controlled trial of a compassion cultivation training program. *Journal of Happiness Studies*. doi:10.1007/s10902-012-9373-z.

Jennings, P. A., & Greenberg, M. (2009). The prosocial classroom: teacher social and emotional competence in relation to child and classroom outcomes. *Review of Educational Research, 79*, 491–525.

Jennings, P. A. (2015). *Mindfulness for teachers: simple skills for peace and productivity in the classroom*. W. W. Norton & Company.

Johnson, D., & Johnson, R. (1987). *Learning together and alone*. New Jersey: Prentice Hall.

Jones, K. C., Welton, S. R., Oliver, T. C., & Thoburn, J. W. (2011). Mindfulness, spousal attachment, and marital satisfaction: a mediated model. *The Family Journal, 19*, 357–361. doi:10.1177/1066480711417234.

Kabat-Zinn, J. (1996). Mindfulness meditation: what it is, what it isn't, and its role in health care and medicine. In Y. Haruli, Y. Ishii, & M. Suzuki (Eds.), *Comparative and psychological study on meditation* (pp. 161–169). **Eburon Editor**.

Kabat-Zinn, J. (2013). *Mindfulness and its role in education*. The Mindfulness in Schools Project Annual Conference. London, UK. 27 March 2013. Keynote Address.

Kaiser Greenland, S. (2010). *The mindful child: how to help your kid manage stress and become happier, kinder, and more compassionate*. New York: Free Press.

Kamins, M., & Dweck, C. (1999). Person versus process praise and criticism: implications for contingent self-worth and coping. *Developmental Psychology, 35*, 835–847.

Kristjansson, K. (2013). *Virtues and vices in positive psychology: a philosophical critique*. Cambridge: Cambridge University Press.

Kuyken, W., Weare, K., Ukoumunne, O., Lewis, R., Motton, N., Burnett, R., Cullen, C., Hennelly, S., & Huppert, F. (2013). Effectiveness of the .b Mindfulness in Schools Program: a non-randomized controlled feasibility study. *British Journal of Psychiatry, 203*, 126–131.

Layous, K., Lee, H., Choi, I., & Lyubomirsky, S. (2013). Culture matters when designing a successful happiness-increasing activity: a comparison of the United States and South Korea. *Journal of Cross-Cultural Psychology, 44*, 1294–1303.

Linkins, M., Niemiec, R. M., Gillham, J., & Mayerson, D. (2014). Through the lens of strength: a framework for educating the heart. *Journal of Positive Psychology*. doi:10.1080/17439760.2014.888581.

Linley, A. (2008). *Average to A+: realising strengths in yourself and others*. Coventry: CAPP Press.

Linley, P. A., & Harrington, S. (2006). Playing to your strengths. *The Psychologist, 19*, 86–89.

Linley, P. A., Nielsen, K. M., Gillett, R., & Biswas-Diener, R. (2010a). Using signature strengths in pursuit of goals: effects on goal progress, need satisfaction, and well-being, and implications for coaching psychologists. *International Coaching Psychology Review, 5*, 6–15.

Linley, A., Willars, J., & Biswas-Diener, R. (2010b). *The strengths book*. Coventry: CAPP Press.

Louis, M. C. (2011). Strengths interventions in higher education: the effect of identification versus development approaches on implicit self-theory. *Journal of Positive Psychology, 6*, 204–215.

Lynch, S., Gander, M.-L., Kohls, N., Kudielka, B., & Walach, H. (2011). Mindfulness-based coping with university life: a non-randomized wait-list-controlled pilot evaluation. *Stress and Health, 27*, 365–375.

Lyubomirsky, S. (2008). *The how of happiness: a scientific approach to getting the life you want*. New York: Penguin Press.

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: the architecture of sustainable change. *Review of General Psychology, 9*, 111–131.

Machell, K. A., Goodman, F. R., & Kashdan, T. B. (2015). Experiential avoidance and well-being: a daily diary analysis. *Cognition & Emotion, 29*, 351–359.

Madden, W., Green, S., & Grant, A. M. (2011). A pilot study evaluating strengths-based coaching for primary school students: enhancing engagement and hope. *International Coaching Psychology Review, 6*, 71–83.

Marques, S., Lopez, S., & Pais-Ribeiro, K. (2011). Building hope for the future: a program to foster strengths in middle-school students. *Journal of Happiness Studies, 12*, 139–152.

MacCann, C., Fogarty, G. J., Zeidner, M., & Roberts, R. D. (2011). Coping mediates the relationship between emotional intelligence (EI) and academic achievement. *Contemporary Educational Psychology, 36*, 60–70. doi:10.1016/j.cedpsych.2010.11.002.

Mayer, J., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development, emotional literacy, and emotional intelligence*. New York: Basic Books.

McAleer, S. (2012). Propositional gratitude. *American Philosophical Quarterly, 49*, 55–66.

McCall, C., Steinbeis, N., Ricard, M., & Singer, T. (2014). Compassion meditators show less anger, less punishment, and more compensation of victims in response to fairness violations. *Frontiers in Behavioral Neuroscience, 8*, 424.

McClelland, M. M., Acock, A. C., & Morrison, F. J. (2006). The impact of kindergarten learning-related skills on academic trajectories at the end of elementary school. *Early Childhood Research Quarterly, 21*, 471–490. doi:10.1016/j.ecresq.2006.09.003.

McCombs, B., (2004). The learner-centered psychological principles: a framework for balancing academic achievement and social-emotional learning outcomes. In J. Zins, M. Bloodworth, R. Weissberg & H. Walberg (Eds.), *Building academic success in social and emotional learning* (pp. 23–29). New York: Teachers College Press.

McCullough, M. E., Emmons, R. A., & Tsang, J. (2002). The grateful disposition: a conceptual and empirical topography. *Journal of Personality and Social Psychology, 82*, 112–127.

McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin, 127*, 249–266.

McCullough, M. E., Kimeldorf, M. B., & Cohen, A. D. (2008). An adaptation for altruism? The social causes, social effects, and social evolution of gratitude. *Current Directions in Psychological Science, 17*, 281–285.

McNulty, J. K. (2008). Forgiveness in marriage: putting the benefits into context. *Journal of Family Psychology, 22*, 171–175.

Miller, G. A. (1969). Psychology as a means of promoting human welfare. *American Psychologist, 24*, 1063–1075.

Miller, J., Fletcher, K., & Kabat-Zinn, J. (1995). Three year follow-up and clinical implications of a mindfulness-based stress reduction intervention in the treatment of anxiety disorders. *General Hospital Psychiatry, 17*, 192–200.

Mongrain, M., & Anselmo-Matthews, T. (2012). Do positive psychology exercises work? A replication of Seligman et al. *Journal of Clinical Psychology, 68*, 382–389.

Morgan, B., Gulliford, L., & Carr, D. (2015). Educating gratitude: some conceptual and moral misgivings. *Journal of Moral Education, 44*, 97–111.

Morgan, B., Gulliford, L., & Kristjansson, K. (2014). Gratitude in the UK: a new prototype analysis and a cross-cultural comparison. *Journal of Positive Psychology, 9*, 281–294.
Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology, 75*, 33–52.
Naito, T., Wangwan, J., & Tani, M. (2005). Gratitude in university students in Japan and Thailand. *Journal of Cross-Cultural Psychology, 36*, 247–263.
Nidich, S., Mjasiri, S., Nidich, R., Rainforth, M., Grant, J., Valosek, L., Change, W., & Zigler, R. (2011). Academic achievement and transcendental meditation: a study with at-risk urban middle school students. *Education, 131*, 556–564.
Noble, T., & McGrath, H. (2008). The positive educational practices framework: a tool for facilitating the work of educational psychologists in promoting pupil wellbeing. *Educational and Child Psychology, 25*, 119–134.
O'Grady, P. (2013). *Positive psychology in the elementary school classroom*. W. W. Norton & Company.
Otake, K., Shimai, S., Tanaka-Matsumi, J., Otsui, K., & Fredrickson, B. (2006). Happy people become happier through kindness: a counting kindness intervention. *Journal of Happiness Studies, 7*, 361–375.
Ozawa-de, S. B., & Dodson-Lavelle, B. (2011). An education of heart and mind: practical and theoretical issues in teaching Cognitive-Based Compassion Training to children. *Practical Matters, Spring, 2011*, 1–28.
Palmer, P. (2003). Teaching with heart and soul: reflections on spirituality in teacher education. *Journal of Teacher Education, 54*, 376–385.
Park, N., & Peterson, C. (2009). Character strengths: research and practice. *Journal of College and Character, 10*, np.
Park, N., & Peterson, C. (2009b). Strengths of character in schools. In R. Gilman, E. S. Huebner, & M. J. Furlong (Eds.), *Handbook of positive psychology in schools* (pp. 65–76). New York: Routledge.
Parks, A. C. (2013). *Positive psychology in higher education*. London: Taylor & Francis.
Parks, A., & Biswas-Diener, R. (2013). Positive interventions: past, present and future. In T. Kashdan & J. Ciarrochi (Eds.), *Bridging acceptance and commitment therapy and positive psychology: a practitioner's guide to a unifying framework* (pp. 140–165). Oakland: New Harbinger.
Parks, A. C., & Schueller, S. M. (2014). *Handbook of positive psychological interventions*. Oxford: Wiley-Blackwell.
Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002). Positive emotions in education. In E. Frydenberg (Ed.), *Beyond coping: meeting goals, visions, and challenges* (pp. 149–174). Oxford: Elsevier.
Pepping, C. A., Davis, P. J., & O'Donovan, A. (2013). Individual differences in attachment and dispositional mindfulness: the mediating role of emotion regulation. *Personality and Individual Differences, 54*, 453–456. doi:10.1016/j.paid.2012.10.006.
Peterson, C. (2006). The Values in Action (VIA) classification of strengths: the un-DSM and the real DSM. In M. Csikszentmihalyi & I. Csikszentmihalyi (Eds.), *A life worth living: contributions to positive psychology* (pp. 29–48). New York: Oxford University Press.
Peterson, C. (2013). *Pursuing the good life: 100 reflections on positive psychology.* Oxford: Oxford University Press.
Peterson, C., & Park, N. (2006). Character strengths and happiness among young children: content analysis of parental descriptions. *Journal of Happiness Studies, 7*, 323–341.
Peterson, C., & Seligman, M. (2004). *Character strengths and virtues: a handbook and classification*. Oxford: Oxford University Press.
Proyer, R. T., Gander, F., Wellenzohn, S., & Ruch, W. (2015). Strengths-based positive psychology interventions: a randomized placebo-controlled online trial on long-term effects for a signature strengths- vs. a lesser strengths-intervention. *Frontiers in Psychology*, *6*, 456. Published online, Apr. 22. doi: 10.3389/fpsyg.2015.00456.
Random Acts of Kindness Foundation (2014). https://www.randomactsofkindness.org.
Rathunde, K. (2000). Broadening and narrowing in the creative process: a commentary on Fredrickson's Broaden-and-Build Model. *Prevention & Treatment*, *3*, article 6c, 1–6.
Reddy, S. D., Negi, L. T., Dodson-Lavelle, B., Ozawa-de Silva, B., Pace, T. W. W., Cole, S. P., Raison, C. L., & Craighead, L. W. (2013). Cognitive-based compassion training: a promising prevention strategy for at-risk adolescents. *Journal of Child Family Studies, 22*, 219–230.
Ricard, M. (2015). *Caring mindfulness*. April, 22. Retrieved from: http://www.huffingtonpost.com/matthieu-ricard/caring-mindfulness_b_7118906.html
Robinson, M. D., Fetterman, A. K., Hopkins, K., & Krishnakumar, S. (2013). Losing one's cool: social competence as a novel inverse predictor of provocation-related aggression. *Personality and Social Psychology Bulletin, 39*, 1268–1279. doi:10.1177/0146167213490642.
Rosaen, C., & Benn, R. (2006). The experience of transcendental meditation in middle school students: a qualitative report. *Explore: The Journal of Science and Healing, 2*, 422–425. doi:10.1016/j.explore.2006.06.001.

Rosset, E., & Shankland, R. (2015). Cultivating gratitude in very young children: a school-based intervention. *Manuscript under preparation*.

Ryff, C. D. (1989). Happiness is everything, or is it—explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069–1081.

Saltzman, A. (2014). *A still quiet place. A mindfulness program for teaching children and adolescents to ease stress and difficult emotions*. Oakland: New Harbinger.

Schutte, N. S., Malouff, J. M., Bobik, C., Coston, T. D., Greeson, C., Jedlicka, C., & Wendorf, G. (2001). Emotional intelligence and interpersonal relations. *Journal of Social Psychology, 141*, 523–536. doi:10.1080/00224540109600569.

Segrin, C., & Taylor, M. (2007). Positive interpersonal relations mediate the association between social skills and psychological well-being. *Journal of Personality and individual Differences, 43*, 637–646.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: an introduction. *American Psychologist, 55*, 5–14.

Seligman, M. E. P., Ernst, R., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: positive psychology and classroom interventions. *Oxford Review of Education, 35*, 293–311.

Seligman, M. E. P., Steen, T., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *American Psychologist, 60*, 410–421.

Shankland, R. (2012). Bien-être subjectif et comportements altruistes: les individus heureux sont-ils plus généreux? *Cahiers Internationaux de Psychologie Sociale, 93*, 77–88.

Shankland, R., Genolini, C., Riou França, L., Guelfi, J.-D., & Ionescu, S. (2010). Student adjustment to higher education: the role of alternative educational pathways in coping with the demands of student life. *Higher Education, 59*, 353–366.

Shankland, R., & Rosset, E. (2015) Integrating gratitude into daily life. *Manuscript under preparation*.

Shek, D. T. L., Ma, H. K., & Cheung, P. C. (1994). Meaning in life and adolescent antisocial and prosocial behavior in a Chinese context. *Psychologia, 37*, 211–21.

Shoshani, A., & Steinmetz, S. (2014). Positive psychology at school: a school-based intervention to promote adolescents' mental health and well-being. *Journal of Happiness Studies, 15*, 1289–1311.

Simonton, D. K., & Baumeister, D. R. F. (2005). Positive psychology at the summit. *Review of General Psychology, 9*, 99–102.

Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychological interventions: a practice-friendly meta-analysis. *Journal of Clinical Psychology, 65*, 467–487.

Snel, E. (2015). *Breathe through this: mindfulness for parents of teenagers*. Boston: Shambhala Publications, Inc.

Snel, E. (2013). *Sitting still like a frog: mindfulness exercises for kids (and their parents)*. Boston: Shambhala Publications, Inc.

Tesser, A., Gatewood, R., & Driver, M. (1968). Some determinants of gratitude. *Journal of Personality and Social Psychology, 9*, 233–236.

Tessier, D. & Shankland, R. (submitted). Adolescents' pleasant experiences at school: positive psychology and educational psychology crossed perspectives.

Tian, L., Li, Z., Chen, H., Han, M., Wang, D., Huang, S., & Zheng, X. (2014). Applications of positive psychology to schools in China. In M. J. Furlong, R. Gilman, & E. S. Huebner (Eds.), *Handbook of positive psychology in schools* (2nd ed., pp. 433–449). New York: Routledge/Taylor & Francis.

Thompson, M., & Gauntlett-Gilbert, J. (2008). Mindfulness with children and adolescents: effective clinical application. *Clinical Child Psychology and Psychiatry, 13*, 395–407.

Trivers, R. L. (1971). The evolution of reciprocal altruism. *Quarterly Review of Biology, 46*, 35–57.

Wagner, L., & Ruch, W. (2015). Good character at school: positive classroom behavior mediates the link between character strengths and school achievement. *Frontiers in Psychology*. doi:10.3389/fpsyg.2015.00610.

Wang, M. C., Haertel, G. D., & Walberg, H. J. (1997). Learning influences. In H. J. Walberg & G. D. Haertel (Eds.), *Psychology and educational practice* (pp. 199–211). Berkeley: McCatchan.

Waters, L. (2011). A review of school-based positive psychological interventions. *Australian Educational and Developmental Psychologist, 28*, 75–90.

Waters, L., Barsky, A., Ridd, A., & Allen, K. (2015). Contemplative education: a systematic evidence-based review of the effect of meditation interventions in schools. *Educational Psychology Review, 27*, 103–134. doi:10.1007/s10648-014-9258-2.

Watkins, P. C., Woodward, K., Stone, T., & Kolts, R. L. (2003). Gratitude and happiness: development of a measure of gratitude, and relationships with subjective well-being. *Social Behavior and Personality, 31*, 431–451.

Weare, K. (2013). Developing mindfulness with children and young people: a review of the evidence and policy context. *Journal of Children's Services*, published online in advance of print.

Wegner, D. M. (2009). How to think, say, or do precisely the worst thing for any occasion. *Science, 325*, 48–51.

Weinstein, N., & Ryan, R. M. (2010). When helping helps: autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology, 98*, 222–244.

White, M., & Waters, L. (2014). A case study of 'the good school:' examples of the use of Peterson's strengths-based approach with students. *Journal of Positive Psychology, 10*, 69–76.

Williams, L., & Bartlett, M. (2015). Warm thanks: gratitude expression facilitates social affiliation in new relationships via perceived warmth. *Emotion, 15*, 1–5.

Wilson, B. M., Mickes, L., Stolarz-Fantino, S., Evrard, M., & Fantino, E. (2015). Increased false-memory susceptibility after mindfulness meditation. *Psychological Science, 26*, 1567–1573.

Wood, A. M., Froh, J. J., & Geraghty, A. W. A. (2010). Gratitude and well-being: a review and theoretical integration. *Clinical Psychology Review, 30*, 890–905.

Wood, A. M., Joseph, S., & Maltby, J. (2009). Gratitude predicts psychological well-being above the Big Five facets. *Personality and Individual Differences, 46*, 443–447.

Wood, A. M., Maltby, J., Stewart, N., Linley, P. A., & Joseph, S. (2008). A social-cognitive model of trait and state levels of gratitude. *Emotion, 8*, 281–290.

Young, F. W., & Glasgow, N. (1998). Voluntary social participation and health. *Research on Aging, 20*, 339–62.

Zakrzewski, V. (2013). *Gratitude activities for the classroom*. Retrieved from http://greatergood.berkeley.edu/…/gratitude_activities_for_the_classroom

Zins, J. E., Weissberg, R. P., Wang, M. C., & Walberg, H. J. (2004). *Building academic success on social and emotional learning: what does the research say?* New York: Teachers College Press.