



# A Review of Character Strengths Interventions in Twenty-First-Century Schools: their Importance and How they can be Fostered

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## Abstract

A main challenge of educational organizations is how to foster students' capacity to fulfill their potential. The present paper, based on educational, psychological, and organizational research, asserts that a discussion of character strengths and their development is highly relevant to this challenge. It provides an integrative overview of the relevance of character strengths to twenty-first-century schools and discusses different mechanisms that can help foster them. Character strengths—widely valued positive traits, theorized to be the basis for optimal functioning and well-being—may derive from inner tendencies, but are expected to have broad potential for development, depending on individuals' experiences and environments. Furthermore, character strengths are closely related to twenty-first-century competencies – cognitive, interpersonal and intrapersonal competencies, identified by the American National Research Council as required for thriving in contemporary life and work, and thus considered to be desirable educational outcomes. The paper first delineates the connections between twenty-first-century competencies and character strengths, demonstrating the importance of promoting them in education. Then, mechanisms for fostering development of character strengths in schools are discussed, based on a review of the literature, including mechanisms that affect students (e.g., curriculum, relationships), teachers (e.g., training, supervisors), and schools (e.g., evaluation processes, resource allocation), while considering the interplay between these different levels. The concluding part of the paper outlines an integrative model of an optimal school system, expected to foster character strengths' use and development and discuss its applications for research and practice.

**Keywords** Character strengths · Education · Schools · Interventions · Positive education · 21st century competencies · School

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## Introduction

Character strengths provide a positive, applicable framework and perspective that can improve functioning and well-being of individuals, groups, and institutions (Peterson and Seligman 2004). Furthermore, the application and promotion of character strengths in educational institutions—which shape the future citizens and leaders of our societies—holds unique promise, as well as unique challenges. In this sense, education is not just another field in which character strengths can be applied. Rather, it is a field in which the need for character strengths' use and development is crucial, if we are to provide young people worthwhile education, which will allow them to thrive and contribute to their communities in the rapidly changing twenty-first-century world. Current education systems aim to equip students with knowledge relevant to current life and work, and it is not clear that they achieve these goals (Mourshed et al. 2014; National Research Council [NRC] 2012). With an unknown future of different technologies, occupational requirements, and societal structures that have not been invented yet, what is typically taught in most schools today may not be enough to equip today's children with what they will need to successfully operate and thrive in the world in which they will live as adults (NRC 2012).

The present paper focuses on character strengths as key for thriving in this future world. It aims to integrate positive psychology, education, and organizational literature, to provide common ground for the application and further research of character strengths and their promotion in schools and bring them to the center stage not only of positive psychology but also of education research and practice. I believe a more profound dialogue integrating positive psychology literature and education literature is essential for achieving this goal, and developing sustainable, integrative, and effective educational practices and educational institutions which promote children's and youth's fulfillment of their potential, and enable them to thrive in the unknown future in which they will live. This dialogue, across disciplinary boundaries, is fundamental for policy-makers, principals, teachers, and all educators today if we are to meet the challenge of educating the next generation.

The paper begins by delineating character strengths' definition and categorization and their relationship to twenty-first-century competencies. Then, it focuses on existing and suggested mechanisms and practices for fostering character strengths in education among students, teachers, and schools, while reviewing the literature on character strengths interventions in schools. The paper concludes with suggestion of an integrative model of an optimal school, expected to foster characters strengths' development.

## Why Character Strengths in Education?

Raising children with “good character” is one of the timeless pursuits of education across many cultures (Brown et al. 2012; Peterson and Seligman 2004). As stated by Park and Peterson (2009), “good character is what parents look for in their children, what teachers look for in their students, what siblings look for in their brothers and sisters, and what friends look for in each other” (p. 65). The components of good character, these aspects of personality that are morally valued, are considered to be core components of optimal youth development (Colby et al. 1998; Park and Peterson

2009), beyond the skills, abilities, and knowledge typically taught by most schools. While skills, abilities, and knowledge are not to be underestimated, individuals lacking “good character” may not have the motivation, courage, persistence, or will to “do the right thing”: act in morally, societally valued ways (Park and Peterson 2006a, 2009).

A host of character education programs have been incorporated in schools over the past few decades, some of which have yielded encouraging effects in reducing risky behavior and/or increasing prosocial competencies, school-based outcomes (e.g., desirable behavior, positive attitudes, and academic achievement), and socioemotional functioning. These character education programs generally aim to “promote the intellectual, social, emotional, and ethical development of young people and share a commitment to help young people become responsible, caring, and contributing citizens” (Lickona et al. 2007; Pala 2011, p. 26). However, there is no consensus about what “good character” is, and what character education should comprise. Character education to date has been discussed and developed mainly based on philosophical or general perspectives, which provide relatively general, morally based definitions of character and typically focus either on abstract definitions or on a relatively small subset of desirable attributes (Brown et al. 2012; and reviews in Linkins et al. 2015; Peterson 2006). Thus, although there seems to be a consensus that character education promotes students’ development as moral agents, the discussion about the specific components of “being a moral agent” is less developed in character education research. In fact, these programs’ focus ranges from development of moral values and reasoning to decreasing risky behavior (like drug and alcohol prevention), service learning, and/or social emotional learning (Berkowitz and Bier 2005, 2007).

In this context, the Values in Action (VIA) classification of character strengths (Peterson and Seligman 2004) can provide a helpful, cross-culturally valid, inclusive roadmap of the components of “good character” and the potential goals of character education. Park and Peterson (2006a, 2009) define “good character” as a multidimensional cluster of morally valued positive traits considered important for good life, which are manifested in individuals’ thoughts, emotions, and behaviors (Park and Peterson 2006a, 2009). The VIA classification aimed to provide a profound theoretical structure for these positive traits, defined as ‘strengths of character’, that contribute to optimal human development. Specifically, Peterson and Seligman (2004) identified six core *virtues*—moral characteristics that are consistently highly valued by philosophers and religious thinkers around the globe. These are wisdom, courage, justice, humanity, temperance, and transcendence. They further identified 24-character *strengths*—the psychological processes or mechanisms that define these virtues and represent their trait-like manifestations. For example, character strengths related to the wisdom virtue are creativity, curiosity, judgment, love of learning, and perspective (Peterson and Seligman 2004).

Character strengths were shown to be manifested across a host of situations and contexts and to contribute to individuals’ psychological and physiological well-being and functioning (e.g., Lavy and Littman-Ovadia 2017; Lavy et al. 2016; Niemiec 2013; Proyer et al. 2013), and they are considered critical for lifelong optimal development and flourishing for children and adults (Colby et al. 1998; Harzer 2016; Park and Peterson 2006a). It has been suggested that the development, practice and use of character strengths enable individuals to be at their best, because character strengths

are manifestations of individuals' potential (Peterson and Seligman 2004; Seligman 2012). Empirical evidence supports this idea, showing that children's and adults' endorsement and use of character strengths is associated with having fewer psychological problems (e.g., Gillham et al. 2011; Niemiec 2013), and experiencing higher hedonic and eudaimonic happiness, and increased engagement (Harzer 2016; Littman-Ovadia and Lavy 2012; Littman-Ovadia et al. 2017; Park and Peterson 2006b; Park et al. 2004). In general, children and youth endorsement and use of character strengths were associated with favorable psychosocial behavior, well-being, and academic achievement (over and above IQ scores; see Niemiec 2013 review; Wagner and Ruch 2015).

Berkowitz and Bier (2005) have suggested that the expected outcomes of character education are a complex set of psychological characteristics. Considering the absence of a clear consensus on the specific components of "character" in character education, the VIA classification can provide a conceptual framework for such a set of components. Furthermore, the VIA Inventory of Strengths, a valid tool for examining the 24 VIA strengths, can be used for assessment of character and character development.

## Character Strengths in Contemporary Education

Despite the similarity in name, educational interventions of character strengths and typical "character education" are usually rooted in different philosophical frameworks. Character education is an umbrella term for programs with different origins and goals. Yet many of these programs are based on Aristotelian perspectives as presented particularly (though not exclusively) in Aristotle's "Nicomachean Ethics" (Kristjánsson 2013; Linkins et al. 2015). Such perspectives often rest on some explicit and implicit assumptions, such as that perfecting the virtues (arête) of character is important for the greater good of the state (the particular happiness of the individual is given less importance). They also assume a relatively clear, single, ideal of character, and sometimes suggest that the process of perfecting oneself towards this ideal includes dominant personal (and cognitive) processes.

In contrast, character strengths education has evolved out of contemporary positive psychology and its main emphasis is on individuals' wellbeing and not the state. Rooted in humanistic psychology (Taylor 2001) positive psychology argues for all human beings' potential for fulfillment and personal self-actualization, assumed to contribute to their well-being (e.g., Maslow 1968). Conceptualizations of character strengths within the positive psychology framework suggest that each person has strengths, which are naturally more characteristic of him/her, but all character strengths can be developed at will. Such development is best pursued in line with each individual's characteristics, goals, and environment (Linkins et al. 2015), thus there is no discussion of an absolute ideal of a certain profile of character that all individuals should pursue. Furthermore, emotional and inter-individual aspects (as well as cognitive ones) are prominent in descriptions of processes that can lead to developing one's strengths (e.g., Lavy et al. 2014, 2017; Niemiec 2013).

The humanistic idea of fostering character strengths for the promotion of fulfillment and happiness is aligned with international educational policy. Personal development and working toward fulfillment of one's potential has been chosen by the UN as the

first core obligation of education, with the UN Convention on the Rights of the Child stating that “the education of the child shall be directed to: (a) The development of the child’s personality, talents and mental and physical abilities to their fullest potential” (UN Convention on the Rights of the Child; CRC 1989/1990; Article 29). Thus, the development of children’s character strength may be part of children’s right to ‘acceptable’ education in international human rights law (see Perry-Hazan 2015, p. 630).

## Character Strengths and Twenty-First-Century Competencies

Interestingly, the 24 VIA strengths correspond with most twenty-first-century competencies suggested in the American NRC (2012) report on competencies required for life and work. According to the NRC report, these competencies are not merely skills, which are intertwined with specific knowledge or subject areas, but reflect “dimensions of human competence that have been valuable for many centuries” (p. 3). These dimensions have become necessary for individuals’ success in contemporary society – including homes, schools, workplaces, and social networks.

An initial list of twenty-first-century competencies was created by rigorous researchers attempting to review empirical data on factors contributing to success in education and work, improved health and relationships, and increased civic participation (NRC 2012). They also compared their findings with other reports on workplace skill demands (e.g., the Secretary’s Commission on Achieving Necessary Skills [SCANS] report, 1991; the Occupational Information Network [O\*NET]). They achieved a list of competencies that can be grouped into three clusters (based on Bloom 1956, and others): cognitive competencies, intrapersonal competencies, and interpersonal competencies (Table 1, two left columns). These competencies have shown consistent positive correlations with a host of desirable educational, career, and health outcomes (e.g., achievement, performance, social competence; NRC 2012). Although not all competencies are equally studied (e.g., cognitive competencies were typically studied more than inter and intra personal competencies) and there are pending questions about the list’s cross-cultural validity (the list was based heavily on research and job descriptions relevant to the U.S.), NRC report (2012) suggests that it can be used for initially guiding education efforts.

It has been suggested (and to a certain extent – shown) in the NRC (2012) report and in subsequent studies, that the suggested twenty-first century competencies can be developed in formal education, and some of them are already being taught/learned in specific context (e.g., math, language). The evidence of the malleability and development processes is clearer for some competencies (e.g., creativity, argumentation) and limited for others (e.g., intellectual interest, curiosity). Furthermore, since today’s students will need to be able to use these competencies, in future situations, most of which are yet unknown, they should know how to *transfer* the knowledge/skills learned in a certain context or subject to other contexts/subjects. This process requires *deeper learning* (i.e., learning for transfer; NRC 2012) of the skills, in a way that makes them competencies that the ability to use them is maintained over time and across different situations, similar to traits or personal attributes (like strengths of character). Thus, the core twenty-first-century competencies can become part of the person’s psychological capital. In this sense, character strengths may meet the general definition of

**Table 1** Character strengths and twenty-first-century competencies

Twenty-First-Century Competencies Cluster	Twenty-First-Century Competencies List <sup>a</sup>	Related Character Strengths	Virtues (VIA character strengths classification) <sup>b</sup>	Virtues (Three-Virtue Model) <sup>c</sup>
Cognitive Competencies Cognitive Processes and Strategies	Critical thinking	Judgment	Wisdom	Self-Control
	Problem solving Reasoning/Argumentation	Perspective	Wisdom	Inquisitiveness
	Analysis Interpretation Executive function	Perspective Judgment	Wisdom	Inquisitiveness
	Decision making	Judgment		Self-Control
	<i>Adaptive learning</i>			
	Information literacy Information & communication technology literacy	Love of learning	Wisdom	Inquisitiveness
	Active listening			
	<i>Oral &amp; written communication</i>			
	Creativity Innovation	Creativity	Wisdom	Inquisitiveness
	Intrapersonal Competencies Intellectual openness	Flexibility	Creativity	Wisdom
Artistic and cultural appreciation		Appreciation of beauty & excellence	Transcendence	Inquisitiveness
Personal and social responsibility (including cultural awareness and competence)		Citizenship/teamwork Social intelligence	Justice Humanity	Caring/Inquisitiveness
Appreciation of diversity		Perspective	Wisdom	Inquisitiveness
Continuous learning		Love of learning	Wisdom	Inquisitiveness
Intellectual interest & curiosity		Curiosity	Wisdom	Inquisitiveness

Table 1 (continued)

Twenty-First-Century Competencies Cluster	Twenty-First-Century Competencies List <sup>a</sup>	Related Character Strengths	Virtues (VIA character strengths classification) <sup>b</sup>	Virtues (Three-Virtue Model) <sup>c</sup>
Work ethic/ Conscientiousness	<i>Adaptability</i>			
	Perseverance Grit	Perseverance/ persistence	Courage	Self-Control
Positive core self-evaluation	Responsibility	Integrity	Courage	Self-Control
	Integrity	Integrity	Courage	Self-Control
	Initiative Self-direction	Bravery	Courage	Self-Control/Inquisitiveness
Interpersonal Competencies Teamwork & collaboration	Self-regulation - type 1: metacognitive skills including forethought, performance, self-reflection	Self-regulation + Perspective	Temperance Wisdom	Self-Control Inquisitiveness
	Self-regulation - type 2: self-monitoring, self-evaluation, self-reinforcement	Self-regulation + Hope <sup>d</sup>	Temperance Transcendence	Self-Control Caring/Inquisitiveness
	<i>Physical &amp; psychological health</i>			
Interpersonal Competencies Teamwork & collaboration	Communication		Justice	Caring
	Collaboration	Citizenship/Teamwork		
	Teamwork			
	Cooperation			
	Coordination			
	Interpersonal skills	Social intelligence		
	Trust			
Conflict resolution				
Negotiation				
Empathy/ perspective taking	Love + Perspective		Humanity/Wisdom	Caring/Inquisitiveness
Service orientation	Kindness		Humanity	Caring

Table 1 (continued)

Twenty-First-Century Competencies Cluster	Twenty-First-Century Competencies List <sup>a</sup>	Related Character Strengths	Virtues (VIA character strengths classification) <sup>b</sup>	Virtues (Three-Virtue Model) <sup>c</sup>
Leadership	Leadership Assertive communication Self-presentation Social influence with others	Leadership Bravery	Justice Courage	Self-Control/Inquisitiveness

<sup>a</sup> Competencies in *italics* NRC, 2012; Competencies in italics were not clearly related to any specific character strength to any specific character strength

<sup>b</sup> Peterson and Seligman, 2004

<sup>c</sup> McGrath, 2015. In this classification, the factor in which the strengths loaded highest in studies 2 and 3 was chosen. If the factors with highest loading were different in the two studies, both factors are mentioned in the table

<sup>d</sup> A sample item of the hope measure: "I know that I will succeed with the goals I set for myself"

competencies, as they are expressed in individuals' feelings, thoughts, and behavior, and they foster individuals' flourishing (Peterson and Seligman 2004; Seligman 2012).

After closely examining twenty-first century competencies and character strengths, I suggest that they are closely related, as illustrated in Table 1 and delineated below. This result is despite the process of identifying and categorizing twenty-first-century competencies being significantly different from Peterson and Seligman's (2004) process of identifying character strengths. In fact, most of the strengths (or at least some of their components) are included in the list of twenty-first-century competencies required for thriving in life at work, and most of the competencies fit within (or are related to) the definitions of one or more of the 24-character strengths. For example, several of the cognitive competencies are closely related to the strength *love of learning*, briefly defined as systematically adding to one's knowledge (Park et al. 2004, p. 606).

Table 1 aims to illustrate these connections between twenty-first-century competencies and character strengths by paralleling specific sets of competencies with specific character strengths (columns 2 and 3). For example, critical thinking fits with facets of judgment (i.e., "Thinking things through and examining them from all sides; *not* jumping to conclusions; being able to change one's mind in light of evidence"; Park et al. 2004; p. 606). Thus, the judgement strength can support (and provide a basis for) development of critical thinking skills. Some competencies are related to (and based on) more than one strength. For example, analysis and interpretation of different arguments requires perspective (i.e., "having ways of looking at the world that make sense to oneself and to other people"; Park et al. 2004, p. 606) but also requires elements of judgment. It should be noted, that at least for certain competencies – their development requires certain abilities (beyond character/trait) – intellectual, social, or other.

Furthermore, perhaps not surprisingly, the three clusters of twenty-first-century competencies, comprising cognitive, intrapersonal, and interpersonal kinds of competencies, resemble the three main factors of character strengths identified by McGrath (2015) in his Three-Virtue Model. This is interesting, as McGrath's (2015) factors were not theoretically driven but rather revealed in a series of analyses depicting the organizing structure of the 24-character strengths across people in different countries. These three factors are: 1) inquisitiveness, comprising cognitive strengths like wisdom, curiosity, and love of learning; 2) self-control, including intrapersonal strengths like perseverance, integrity, and self-regulation; and 3) caring, including interpersonal strengths like love, kindness, and teamwork.

Table 1 demonstrates how different character strengths (listed in the 3rd column) correspond to the categories of the three-virtue model (5th column), and how they connect to twenty-first century competencies (2nd column) and clusters (1st cluster). For example, the competencies problem solving, reasoning/argumentation, analysis, and interpretation are all paralleled with strengths related to the inquisitiveness virtue, and are also part of the cognitive competencies cluster. It should be noted that some categorizations are not clear-cut. For example, some competencies included in the cognitive cluster are related to judgment – categorized under the self-control virtue in McGrath's (2015) model. These findings suggest that the nature of some of the competencies may be multifaceted.

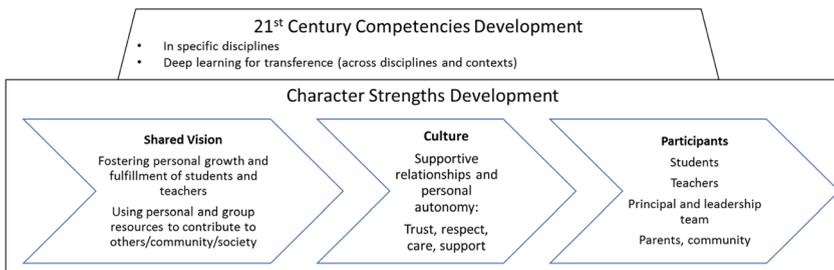
Overall, the connections between character strengths and twenty-first century competencies, as well as their theoretical definitions, suggest that character strengths may

provide psychological/malleable trait-like constructs that support the acquisition or development of twenty-first century competencies. For example, the strength “curiosity” can support the development of intellectual interest, “love of learning” may support the development of information and communication literacies and continuous learning, and the strength of “love” can support the development of empathy. Thus, character strengths can be featured as building blocks upon which twenty-first century competencies can be built/developed (Fig. 1).

In line with this idea, the twenty-first-century competencies that are not easily paralleled with specific character strengths are often ones comprising concrete skills (i.e., oral and written communication) or general characteristics (i.e., adaptability) or conditions (i.e., physical and psychological health). The characteristics of most character strengths that cannot be easily paralleled with specific twenty-first-century competencies are different. Most of these character strengths are related to the virtues of temperance (i.e., forgiveness, humility, prudence) and transcendence (i.e., gratitude, humor, spirituality). Two other strengths not paralleled in the list of competencies are zest and fairness (related to the virtues courage and justice respectively). It can be argued that these strengths are less relevant to life and work in the twenty-first century, although they may be generally morally valued. However, at least some of these character strengths were shown to be among the strengths most highly associated with life and work satisfaction and positive attitudes (Littman-Ovadia et al. 2017; Niemiec 2013). Thus, alternative explanations may be that the examination of these strengths (and perhaps even these virtues) is less common in the research on which the NRC (2012) report is based, that their practical value may be more complex to depict, or that their value is less evident in individualistic societies such as the U.S., where the list of twenty-first-century competencies was created. In any case, this is a source of concern, because individuals that these are their signature strengths may experience more difficulty thriving, in schools that do not appreciate these strengths.

## Fostering Character Strengths in Schools

The links of twenty-first-century competencies with the 24-character strengths highlight the relevance of character strengths to education today, and the importance of fostering them in youngsters may be key to twenty-first-century education. Researchers have argued and empirically shown that character strengths can be developed through



**Fig. 1** Sample building blocks for sustainable character strengths and 21st-century competencies development in a school

their exercise and use, and that their development pave a path for personal thriving, by enhancing well-being, personal growth, a sense of meaning, engagement, performance, and other desirable outcomes (e.g., Gander et al. 2013; Ghielen et al. 2017; Peterson and Seligman 2004; Quinlan et al. 2012). Acknowledging the importance of character strengths development, principals, educators, policy makers, and positive psychologists have developed various initiatives aimed to foster character strengths in schools.

Several related interventions that are not defined as character strengths interventions per se will not be reviewed here in detail (and are not included in meta-analyses and reviews of character strengths interventions). However, it is important to mention them as their goals are closely related to nurturing character strengths in schools. These include typical character-education programs (for examples, see Berkowitz and Bier 2007) as well as more general programs focusing on socio-emotional learning (SEL) in schools, which typically aim to improve five main sets of personal competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision making (for reviews, see Durlak et al. 2011; CASEL website: <http://www.casel.org/>). Most of these programs are highly effective, and should be consulted when developing, implementing, or evaluating interventions.

The differences between these interventions and character strengths interventions, should also be acknowledged. Specifically, Linkins et al. (2015) and Lottman et al. (2017) argue that a main difference between character strengths interventions and most character education/SEL programs is the focus of character strengths programs on celebrating individual differences, rather than trying to mold everyone into having the same “prescribed,” required character attributes, which may be the aim of various character education (Linkins et al. 2015) and SEL (Lottman et al. 2017) programs. Thus, the process in typical character strengths interventions is more personal and encouraging, rather than instilling a list of prescribed behaviors or habits (Linkins et al. 2015).

These perspectives on student development can be paralleled with two teacher development paradigms, which Meijer et al. (2009): The first, called technical competence – related to competency-based teacher education and evidence-based practice (e.g., Hammersley 2007), and the second, personal growth – related to humanistic-based teacher education (e.g., Allender 2001). While the technical competence paradigm focuses on building teachers’ competencies found to be important for teaching, the personal growth paradigm focuses on promoting teachers’ reflections on their personal and professional identity and motivation. In their work, Meijer et al. (2009; based on Korthagen 2004) suggest a combination of both perspectives, similar to that used in character strengths interventions. The process they describe generally includes promoting awareness of teachers’ core qualities, linking them with teachers’ identity and mission, identifying and increasing awareness of obstacles and opportunities to act on these qualities, and promoting a sense of presence (Meijer et al. 2009). This process has components strikingly similar to the key elements of character strengths interventions in education described below.

## **Character Strengths Interventions Review: Process and Key Findings**

In order to provide an integrative overview of initiatives to foster character strengths in schools and a profound/overall understanding of their effects, the literature on character

strengths interventions in schools was reviewed, while consulting PRISMA guidelines (Moher et al. 2009) and CONSORT (2010) checklist aimed to assess levels of bias risks in intervention studies. The literature search focused on character strengths interventions in schools, while typically excluding other strengths interventions such as interventions focusing only on one or few strengths (e.g., hope). To ascertain the unique value of character strengths interventions, interventions that are not exclusively focused on character strengths were also generally avoided (although some of these were influential in positive psychology – such as the Penn Resiliency Program). Search words were character strengths and education/teacher/teaching/school/ student and intervention/trial/exercise. Google Scholar and Scopus databases were searched, as well as reference lists of relevant reviews of strengths interventions and the relevant reference list of the VIA Institute on Character. The research yielded 1524 results (excluding overlapping results). Initial screening yielded 15 relevant publications listed in a table provided in the online complimentary material. These 15 publications were thoroughly screened by two independent reviewers for adherence with the review requirements and initial randomized controlled trial (RCT) report requirements/ risk bias (CONSORT checklist; inter-rater reliability was  $>.96$ ). Only four publications were found to include statistically valid results concerning an intervention focusing only on character strengths in school context. Out of these, one manuscript (Madden et al. 2011) was a pilot study with no control group, and three were controlled trials (Proctor et al. 2011; Quinlan et al. 2015; Rashid et al. 2013).

The key findings of these studies that passed the screening indicated that character strengths interventions increased engagement, hope (Madden et al. 2011), life satisfaction (Proctor et al. 2011), positive affect, classroom engagement, class cohesion, relatedness and autonomy need satisfaction, strengths use (Quinlan et al. 2015), well-being and social skills, and academic performance, and improved problem behavior (Rashid et al. 2013). The review process further highlighted the need for more empirically valid research on character strengths interventions in schools. As noted by Quinlan et al. (2012), strengths interventions are widely used in schools, but the effects of most of these interventions are not examined in rigorous, empirical, quantitative research. The review process also highlighted the tendency to combine character strengths interventions with other positive psychology components (e.g., mindfulness, Alzina and Paniello 2017; Lottman et al. 2017). This may be very reasonable for practitioners aiming to achieve best results but makes it difficult to evaluate the unique value of character strengths interventions. Due to these issues, the review below does not refer exclusively only to the four publications that adhered to the required guidelines. It includes reference to additional intervention descriptions, although their effects were not examined in a quantitative, RCT research.

### Key Elements in Character Strengths Interventions

Most character strengths interventions in schools include key elements of learning: 1) providing **theoretical knowledge** or conceptualization (i.e., providing a strengths *language*; explaining what strengths are, defining and describing each strength); 2) encouraging **recognition** of character strengths in oneself—and also sometimes in others (e.g., providing examples, asking to spot strengths use in

books/films/everyday life); 3) encouraging **action**, typically exercising more strengths use in various situations (e.g., try to use your strengths in new ways in school this week); and 4) encouraging **reflection** on one's own or others' strength use (e.g., reflecting on a time in which the student used his/her strengths during the week – what were the causes/results). These elements also correspond with key components of experiential/deep learning processes suggested in various theories (Kolb 2014; Bishop 2010), including a general/theoretical component, personalization, experience/action, and reflection. Such learning processes were found to be effective in promoting changes in thoughts and behavior, and trigger the development of new habits (e.g., Kolb 2014). This kind of habitual behavior, acting in ways that reflect one strength or another in an increasing number and variety of situations, is what was thought to constitute character (Peterson and Seligman 2004; Niemiec 2013). Furthermore, this process of fostering a certain strength or competency and learning to apply it in various situations is what underlies the idea of deep learning (i.e., learning for transfer) of twenty-first-century competencies. It is also suggested as one of the mechanisms underlying the desirable effects of character strengths interventions, such as higher manifestation of certain strengths (Seligman et al. 2009), increased positive affect, class cohesion (Quinlan et al. 2015), life satisfaction (Proctor et al. 2011), enjoyment, and engagement (Seligman et al. 2009).

Some of the qualitative reports on character strengths interventions in schools describe qualitative changes in educators' and/or students' common practices and habitual reactions in various situations. For example, White and Waters (2015) describe changes in teachers' and fellow students' reactions to a teammate's mistake—exhibiting more forgiveness. They similarly describe changed reactions to academic and social challenges, and even to one's own and to others' success. From a social psychology perspective, these descriptions seem to suggest that the focus on strengths and embracing opportunities for their use by oneself and others fosters a social climate in which mistakes are forgiven more easily and exploration (i.e., finding new ways to use strengths) is nurtured and encouraged (based on Seligman et al. 2009; Waters 2011; White and Waters 2015).

These ideas correspond with qualitative reports (e.g., Ledertoug 2016; Lottman et al. 2017; White and Waters 2015) suggesting that this change in habitual behavior is often related to a more general “strengths mindset” that is created by the continued use of “strengths language” and reference to strengths. These seem to foster strengths thinking (i.e., thinking in terms of strengths that can be useful in various situations) (Bates-Krakoff et al. 2017; Linkins et al. 2015; Rashid et al. 2013).

### **Focusing on Students, Teachers, and Schools: a Multilevel Perspective**

Processes fostering character strengths, including the development of a strengths-based language and mindset, occur within individuals. However, they are also crucially affected by the social environment in which they are constructed. In this respect, character strengths interventions can focus on: 1) fostering character strengths in students; 2) fostering character strengths in teachers (and students); and 3) fostering character strengths in schools (including teachers and students).

Interventions focusing on students, typically include a set of sessions, some of which are complemented with follow-up exercises, conducted by an external trainer or by the classroom teacher with material and/or guidance from an external source. These sessions often start with spotting one's own strengths (by answering a questionnaire, in a dialogue or discussion), and then include, for example, definition/description of a specific character strength, an exercise – writing a story about the strength, and a follow-up exercise (e.g., try to use the strength on your way to school/ in your favorite hobby or subject) (Proctor et al. 2011; Quinlan et al. 2015). Most programs include exercises encouraging participants to use their character strengths in new ways, and application of character strengths to dealing with daily challenges, building relationships, as well as to analyzing text, films, and behaviors of oneself and others in school (e.g., strength spotting) (Oppenheimer et al. 2014; Quinlan et al. 2012, 2015). As mentioned above, some of these programs, focusing on students, show notable positive effects on students' learning and academic performance (Ledertoug 2016; Rashid et al. 2013), affect, attitudes (Madden et al. 2011; Quinlan et al. 2015; Seligman et al. 2009), life satisfaction (Proctor et al. 2011), strengths use, class cohesion (Quinlan et al. 2015) and social skills (Rashid et al. 2013). Some of these effects seem to be stronger when the intervention is conducted by the classroom teacher and/or endorsed by him or her, and affect classroom language and climate (e.g., Ledertoug 2016). This conforms to prior research on positive interventions in schools (e.g., mindfulness), which provide quantitative evidence that interventions conducted by the classroom teacher may be more effective than those conducted by external trainers, no matter how professional (Waters et al. 2015). Most character strengths interventions in schools reported in the literature are of this kind – comprising discussions, activities, and exercises for students (Ghielen et al. 2017; Quinlan et al. 2012; Waters 2011).

The second kind of intervention focuses on teachers, based on the notion that teachers' personalities, motivations, moral perspectives, and psychological mindsets inevitably affect the teaching process and its capacity to touch the students and make a difference in their minds and habitual behavior (Noddings 2015; Palmer 1998). Palmer (1998) argues that “we teach who we are,” and thus fostering real character development in education will begin with teachers' internal work. This corresponds with the notion that teachers' acknowledgement and application of their inner qualities can promote their teaching, and their students' well-being and achievement (e.g., Korthagen 2004; Meijer et al. 2009). It also fits well with empirical data showing that when people “work from their strengths” (Shankland and Rosset 2017, p. 369) and not from their weaknesses, they are more motivated, enjoy their work more, and perform better (Clifton and Harter 2003; Lavy and Littman-Ovadia 2017; Littman-Ovadia et al. 2017). Programs which focus on teachers typically begin with a process aimed to foster teachers' personal strengths: helping teachers spot and understand their strengths (e.g., by using the VIA-inventory, or discussing one's strengths), encouraging teachers to use their strengths in new ways (e.g., via discussions and exercises during the sessions and between sessions), and helping them adopt a “strengths mindset” (e.g., Ho et al. 2017; Lottman et al. 2017; Shoshani et al. 2016; Thriving for Learning; <https://www.mayersonacademy.org/thriving-learning-communities/>). Pedagogical assistance to foster teachers' delivery of the material to students may follow at the second stage of some of these programs. I suspect that this kind of intervention may be more sustainable, due to teachers' motivation and ability to be a model for the

development process. However, more empirical data on such interventions is required in order to empirically support such a statement.

The third kind of character strengths intervention focuses on the school. School-focused character strengths interventions have barely been reported in scientific journals (e.g., Gillham et al. 2014; O'Connor and Cameron 2017; Shoshani and Steinmetz 2014; Waters 2011; White and Waters 2015). Most of these school-level programs do not focus merely on character strengths, but rather adopt a more general positive psychology framework, of which character strengths are only a part. However, their components and processes are relevant even to the more specific pursuit of fostering character strengths development in schools. These school-level interventions have different characteristics, but typically they comprise a well-orchestrated program that sometimes involves a few different interventions (e.g., for different staff members, for different subjects or classes). This kind of combined program is thought to promote a more notable effect, because students and teachers receive similar reminders of character strengths, and messages encouraging their use received in different ways strengthen the “strengths mindset” discussed above (e.g., White and Waters 2015). It has also been empirically shown that organizational support for strengths use is associated with improved performance (assessed by employees and managers; van Woerkom et al. 2016a, b) and decreased absenteeism (van Woerkom et al. 2016a).

Furthermore, some of the school intervention programs build on a preliminary process of developing a shared vision and goals among school leadership and school staff, following a positive psychology framework. This vision establishes the basis for a culture that enables, supports, and encourages character strengths development. Existing literature on change in educational organizations stresses the importance of aligning change with the school's daily processes, routines, structure, and culture (e.g., Coburn 2003; Fullan 2002; Han and Weiss 2005). Also, school leadership's ownership of the change has been marked as a key indicator of the depth of the change process and as a predictor of its sustainability (Coburn 2003; McLaughlin and Mitra 2001). Such ownership means that school leadership nurtures the change by creating a supportive organizational climate and structures and by having an agenda and priorities that are in line with the change goals. These processes result in institutionalization of systematic changes in attitudes, expectations, support mechanisms, and structures (Adelman and Taylor 2003; Coburn 2003).

For example, as illustrated in Fig. 1, a shared vision of fostering character strengths among teachers and students, can help build routines, structures, and decision-making processes that foster character strengths development (e.g., acknowledging strengths in evaluation meetings, strengths spotting in all classes, etc.). Processes of exploring new ways to use strengths can be facilitated by creating a caring culture based on mutual trust, respect, and autonomy, which provides a secure base for students' and teachers' exploration and supports the school's vision. Involving wider circles of participants in the process of nurturing character strengths and in its shared vision can further provide an environment that supports this process and vision (e.g., promoting parents' support and use of “strengths language”) and generates more opportunities for individuals to discuss and apply their strengths and fulfill their potential. Further, schools can take the next step and advance policies and procedures that encourage character strengths development. For example, they can promote evaluation processes that focus on learning and exploration and even directly on character strengths manifestation and

development; they can develop HR training policies that encourage personal growth in school and after school; and they can allocate resources to teachers' and students' attempts to try new ways to use their strengths.

Importantly, research suggests that practices and interventions at a certain organizational level can affect practices at other levels (e.g., Hoy and Miskel 2013). For example, teachers who deliver interventions for their students may also be affected by the ideas and apply character strengths frameworks in other aspects of their work (e.g., with colleagues). Typically, the effects of higher-level practices are greater, because they can potentially affect more people and practices at lower levels. Furthermore, higher-level practices potentially affect organizational culture (e.g., embedding a "strengths-based language" or a "strengths-based framework" in school).

I suggest that combining actions at the three levels (i.e. school, teachers, and students) can provide an integrative, effective and sustainable framework for fostering strengths in schools, promoting a "strengths-mindset" which is repeatedly reinforced and encouraged. To provide an integrative framework for developing, conducting, and examining ways to foster character strengths development in schools, I list some of the practices relevant to each of the three levels in Table 2. The relevant references section includes literature describing related examples of character strengths interventions (where there are such interventions), more general positive psychology interventions, and/or similar processes in related fields.

Because school level practices are the most underdeveloped ones, interventions suggested in this part comprise not only character strengths interventions in schools reported in the literature, but also interventions proven effective in promoting other goals in different organizations. These interventions aim to cultivate organizational culture, structures, and procedures, which foster character strengths development among teachers and students. Among these practices are the development of a shared vision, and the establishment of HR practices, evaluation, and decision-making processes that highlight the importance of strengths use and its promotion.

At the teachers' level, practices aimed to foster personal enhancement of teachers' character strengths use and development can be enhanced by adding other strengths-related practices shown to promote strengths use among employees. Among these are adjustment of teachers' job/tasks in ways which can better enable and promote teachers' use of their personal strengths (e.g., job crafting), and increasing the social support teachers receive. Schools can also structure teachers' reception, development, and discussion of tools and processes aimed to foster students' character strengths development. These can include using character strengths framework in different classes, while teaching various subjects (e.g., analyzing text and processes through the lenses of a character strengths framework), in forming extra-curricular activity (e.g., building on students' strengths in preparing class show or activities with the community), in student evaluation, etc.

The benefit of adopting this kind of an integrative framework for fostering character strengths in schools, is that the activities conducted in the different organizational levels support and strengthen each other. For example, it may be easier for a teacher to lead strengths-based evaluation processes after he/she has experienced being evaluated in this manner him/herself and has also been trained on providing such evaluations. Such evaluation process can also provide a clear example for analyzing real-world processes with a "strengths-mindset", and thus support class activities. Furthermore, these aligned

**Table 2** Examples of practices for fostering character strengths development in different levels (see [complementary material table](#) for additional details)

Participants	Domain	What the intervention comprises	Relevant references
Students	Curriculum	<ul style="list-style-type: none"> <li>- Adding a course on character strengths—a few sessions/ yearly/multiple years, typically including assessment/reflection, theoretical explanations, and exercises (e.g., identifying strengths, receiving feedback from others on one’s strengths/secret strengths spotting, trying to use signature strengths or other specific strengths in new ways).</li> <li>- Adopting or adding a character strengths perspective to teachings in various subject areas (e.g., English, history, foreign language – spotting character strengths in stories/films/plays).</li> <li>- Initiating an activity fostering student strengths (e.g., student personal project/leadership), or integrating character strengths enhancement to such activities (e.g., analyzing sports events through character strengths lenses; using character strengths language in mentoring).</li> </ul>	<p>Gillham et al. 2014; Madden et al. 2011; Quinlan et al. 2015; Rashid et al. 2013; Proctor et al. 2011; Seligman et al. 2009; Shankland and Rosset 2017; Suldo et al. 2014;</p> <p>Oppenheimer et al. 2014; Seligman et al. 2009- GCS example; White and Waters 2015</p> <p>White and Waters 2015</p>
Teachers	Training and development	<ul style="list-style-type: none"> <li>- Focusing on character strengths in teacher development program, mentoring, leadership program. Components of such processes can include identifying teachers’ character strengths, thinking about new ways to use them (in class and daily life), reflection on character strengths use etc.</li> </ul>	<p>Ho et al. 2017; Korthagen 2004; Lottman et al. 2017; Meijer et al. 2009; Shoshani and Steinmetz 2014</p>
	Job crafting	<ul style="list-style-type: none"> <li>- Encouraging and helping teachers use their strengths at work (in teaching, problem solving, interactions with colleagues and parents).</li> <li>- Restructuring teachers’ jobs to enable roles that fit strengths of specific teachers (e.g., social coordinator, theatre specialist etc.- in line with teachers’ strengths and interests).</li> </ul>	<p>van Woerkom et al. 2016a; van Woerkom and de Bruijn 2016</p>
	Ongoing supportive venues	<ul style="list-style-type: none"> <li>- Supervisor support, colleague support (e.g., weekly/biweekly personal/group meetings with direct supervisor, team, or counselor. May include reflecting on strengths use, secret strengths spotting etc.).</li> </ul>	<p>Lavy et al. 2017; van Woerkom et al. 2016a, b.</p>

Table 2 (continued)

Participants	Domain	What the intervention comprises	Relevant references
School	Organizational processes and procedures	<ul style="list-style-type: none"> <li>- Developing a shared vision and goals that focus on character strengths/ moral and personal development.</li> <li>- Embedding character strengths language into speeches at events.</li> <li>- HR policies and specific decisions should be carved out to serve school goals of fostering personal development and contributing to the community (e.g., teacher personal development program, teacher training, offer staff and students opportunities for strengths development in daily routine and special events).</li> <li>- Evaluation processes (of teachers, staff, and students) use character strengths language and a growth mindset (e.g., learning from successes, using improvement and learning measures, process and effort evaluation - not merely results evaluation). Assessment of competencies related to character strengths (e.g., twenty-first century competencies).</li> <li>- School resources should be discussed while considering staff team members' personal and team strengths, the opportunities they enable, and ways in which they can be used to advance school goals.</li> </ul>	<p>O'Connor and Cameron 2017; White and Waters 2015; Suldo et al. 2014</p> <p>Peterson 2006; Waters 2011</p> <p>Anderman &amp; Maehr 1994; CASEL <a href="https://casel.org/">https://casel.org/</a>; National Research Council 2012; Peterson 2006</p> <p>Hoy and Miskel 2013; Peterson 2006</p>

activities promote a culture of acceptance and trust, which is required for development and exploration (e.g., Bowlby 2005).

Last but not least, educational systems can provide a supportive structure to schools fostering character strengths, by rethinking or adding to standardized evaluation processes (and professional requirements, beyond standardized tests; e.g., “Positive CV” program <https://ratkaisu100.fi/>), providing resources and professional support, and enabling autonomy and variability at the school, teacher, and student levels. Such autonomy carries a message of trust and respect and can enable each teacher (and student) to perform at their best, using their personal qualities that best fit each task (Korthagen 2004; Meijer et al. 2009) and that are most suitable for each situation.

## Concluding Remarks

The present paper situates character strengths education within the broader educational discussion of twenty-first-century schools and provides an initial roadmap for applying character strengths interventions in schools, while integrating positive psychology research with contemporary educational research. Within this context, it is important to note the contribution of the VIA classification of character strengths to a systematic, measurable conceptualization of character attributes and the similarities of this classification to twenty-first-century competencies, as conceptualized by the NRC (2012). These connections point to the interesting link between moral character and attributes of the functioning individual and shed new light on theoretical questions related to the ultimate goal of education: should it focus on moral goals, on required competencies, or on both? Discussions of this kind are important for better, more profound understanding of the optimal development process of individuals in educational institutions.

The paper also highlights the links between character education, twenty-first-century competencies, positive psychology, and education administration. However, these links are quite preliminary currently, in the context of character strengths in education. Further integration with philosophy of education, positive psychology, and learning and instruction scholars and practitioners will enable the creation of better paradigms for fostering students’ and teachers’ character strengths as a basis for a thriving future society.

Nurturing character strengths seems to be very relevant to twenty-first-century schools. This understanding appears to be clearer for educators and practitioners than for education researchers and policy makers, as its practice appears to be more dominant than its research or guiding policy. However, scaling-up character strengths interventions would require more rigorous research into the mechanisms underlying the effects of fostering character strengths, including examination of factors moderating (or amplifying) these effects. In a similar vein, more research on specific intervention programs effects is required, examining their sustainability, as well as their long-term effects on further development of cognitive, intrapersonal, and interpersonal competencies. Better understanding of the organizational, psychological, and educational processes that enable teachers and students to develop their character strengths, would lead us toward a more integrative educational

theory – coherent with current education trends, and corresponding with the quest for fulfilment of individuals’ and communities’ potential.

### A Word of Caution

Although character strengths and their use are typically associated with desirable outcomes, fostering their development in education should be conducted with awareness to potential pitfalls (Ciarrochi et al. 2016; Shankland and Rosset 2017). First, educators and policy makers should balance providing students with a sense of agency and focusing on their ability to develop their character strengths to achieve positive outcomes, with realistic acknowledgement of effects of the external environment (e.g., socioeconomic status, family characteristics, teacher/peers, immediate situation) on behavior and its outcomes. This is important especially in highly individualistic countries, in which people commonly misconceive the causes of behavior as residing exclusively within the individual (i.e., the fundamental attribution error).

Another point to be considered is that although character strengths are considered to be valued across cultures (Peterson and Seligman 2004), they may not be ultimately positive, and their behavioral manifestation may be positive or negative – depending on the extent, context, and specific behavior (e.g., Kern 2017). Recent research on effects of strengths use revealed that “strengths overuse” is associated with depression, and may be associated with social difficulties (i.e., social anxiety) when combined with underuse of other strengths (Freidlin et al. 2017). In addition, it was found that the use of specific character strengths may be more/less adaptive in various cultural contexts (e.g., Littman-Ovadia and Lavy 2012), and specific character strengths that may have a notable contribution to life and work (such as zest or humor) may be less appreciated in school context. These issues should be acknowledged and addressed when planning and conducting educational processes aimed to promote teachers’ and students’ character strengths development and long-term well-being. Furthermore, since the VIA classification was based heavily on the Abrahamic religions (Islam, Christianity, and Judaism; Peterson and Seligman 2004), and students in all cultures have the right to adaptable education, which respects their cultural background (Almog and Perry-Hazan 2012; Perry-Hazan 2015, 2016), its fit to education in cultures rooted in other religions should be examined.

A final point of caution is that the moral value of character strengths interventions is still questioned by some theorists and researchers. Such critics argue that character strengths development is not necessarily compatible with certain philosophical views of virtues and their development, and does not necessarily promote moral development or moral behavior (e.g., Kristjánsson 2013). For example, it is not clear that creativity, zest, curiosity and some other strengths are necessarily moral, or contribute to moral behavior. A thorough discussion of these issues is beyond the scope of the present paper, but is important enough to be seriously considered, and may serve to advance our understanding of character strengths interventions goals – as well as their limitations.

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