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**Under Review**

**Contemporary Assessment of Youth Comprehensive Psychosocial Assets:**

**School-Based Approaches and Applications**

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## INTRODUCTION

The assessment of strengths and positive psychological attributes in children and adolescents has predominately focused on the measurement of single traits and constructs, such as grit (Christopoulou, Lakioti, Pezirkianidis, Karakasidou, & Stalikas, 2018), optimism (Oberle, Guhn, Gadermann, Thomson, & Schonert-Reichl, 2018), hope (Pedrotti, 2018), and gratitude (Gottlieb & Froh, 2019). Although there is substantial value in assessing and evaluating the beneficial correlates of individual positive psychology constructs, we suggest that a whole-child paradigm (Alford & White, 2015) provides an optimal rationale supporting the use of comprehensive positive psychology measures. In this chapter, we focus on current use of positive psychology assessments with youth in school contexts. We offer the perspective that when used with youth in school settings, a universal assessment model, in which all students' positive psychological functioning is assessed, has the potential to benefit the greatest number of students (Moore, Mayworm, Stein, Sharkey, & Dowdy, 2019). In short, positive psychology measures have a clinical purpose when used by school psychologists as part of an individual child psycho-educational assessment, but such measures have even greater utility when used to provide comprehensive information about the optimal psycho-social development of *all* students within the ecological context of local education agencies. A second consideration that guides this chapter is that, in our view, positive psychological assessment has critical benefit and scientific rationale when grounded in a sound conceptual model that offers an understanding of the process and factors associated with child and adolescent flourishing development and well-being.

### COMPREHENSIVE STRENGTHS ASSESSMENT MODELS FOR SCHOOL CONTEXTS

Given these considerations, this chapter reviews comprehensive strength-focused assessments that monitor components of flourishing well-being of all youth. We advocate for a holistic approach to assess youth psychological wellness that examines strengths in combination rather than in isolation; that is, assessment of the integrative effects of the components of well-being (Lenzi, Dougherty, Furlong, Dowdy, & Sharkey, 2015). Contemporary models of holistic well-being and strengths-based assessment included in this chapter were selected for review based on evidence of compelling psychometric properties, including replicated validity and generalizability with diverse samples across three or more separate studies. Models meeting this criteria and selected for review are as follows: (a) Kern, Benson, Steinberg, and Steinberg's (2016) Engagement, Perseverance, Optimism, Connectedness, and Happiness (EPOCH) model; (b) Lerner et al.'s (2005) Five Cs Model of Positive Youth Development (Competence, Confidence, Connection, Character, Caring); and (c) Furlong et al.'s (2014) Covitality integrated social emotional mindset model (Belief-in-Self, Belief-in-Others, Emotional Competence, and Engaged Living). For each assessment model, we provide an overview of the conceptual grounding of each measure, a summary of key psychometric studies, and illustrations of how the models' measures are being used in applied school contexts. We include examples of how comprehensive positive psychology measures are being employed by researchers and in local education agencies in Spain and the United States. Additionally, we provide readers with descriptions of, and access to, key online sources of information about positive psychology assessment appropriate for use with children and adolescents.

#### **Engagement, Perseverance, Optimism, Connectedness, and Happiness (EPOCH) Model**

The EPOCH measure is grounded in Seligman's (2011) PERMA flourishing model, which consists of Positive emotions, Engagement, Relationships, Meaning and purpose, and Accomplishment. The EPOCH measure is a downward extension of Butler and Kern's (2016) PERMA-Profilier used with

adults. It is based upon expanded research that has demonstrated positive relations between the EPOCH components of engagement, optimism, and connectedness assessed during adolescence with greater life satisfaction and well-being assessed in adulthood (Carver, Scheier, & Segerstrom, 2010; Chan, Ou, & Reynolds, 2014). Additionally, higher levels of perseverance among youth were related to higher graduation rates and lower health risks (Eskreis-Winkler, Shulman, Beal, & Duckworth, 2014; Hoyt, Chase-Lansdale, McDade, & Adam, 2012).

The EPOCH model defines *Engagement* as the capacity to become absorbed in and focused on what one is doing, in addition to being involved and interested in life activities and tasks (e.g., “When I do an activity, I enjoy it so much that I lose track of time”). *Perseverance* is the ability to pursue one’s goals to completion despite challenges (e.g., “Once I make a plan to get something done, I stick to it”). *Optimism* refers to one’s hopefulness and confidence about the future marked by a tendency to have a positive outlook on life (e.g., “In uncertain times, I expect the best”). *Connectedness* is the sense that one has satisfying relationships with others, believes that one loves, values, and provides friendship or support to others (e.g., “When something good happens to me, I have people who I like to share the good news with”). *Happiness* is one’s steady feeling of content with life, which is associated with a positive mood (e.g., “I feel happy”). Kern and colleagues (2016) posited that facilitating these psychological characteristics during adolescence promotes, and possibly predicts, adult flourishing based on PERMA’s theory of well-being.

### **EPOCH Psychometric Support**

Kern and colleagues (2016) developed the EPOCH scale by selecting 60 items from comparable measures related to the aforementioned EPOCH characteristics. To develop a parsimonious measure, 10 sample groups of middle- to upper-income youths ages 10-18 from the U.S. and Australia were compiled. Based on measurement functioning across different sample groups and across time, the final EPOCH scale retained 20 items, with four items per subscale. Confirmatory factor analyses (CFA) indicated that there were adequate fit indices, favoring a five-factor model, rather than a single-factor or a higher-order latent model. Overall, internal consistency estimates (Cronbach’s alpha) ranged from .90 to .92 for the full scale across sample groups (Kern et al., 2016). Table 1 provides a summary of key psychometric studies documenting the reliability and validity of the EPOCH scale<sup>1</sup>.

With respect to concurrent validity evidence, Kern and colleagues (2016) reported that the EPOCH subscales were negatively correlated with measures of depression ( $r = -.13$  to  $-.53$ ), anxiety ( $r = -.02$  to  $-.36$ ), and aggression ( $r = -.04$  to  $-.44$ ). Despite the varying degrees of positive correlations with other constructs, the EPOCH subscales were positively associated with higher self-reported physical vitality ( $r = .34$  to  $.58$ ), self-rated academic performance ( $r = .29$  to  $.53$ ), and life satisfaction ( $r = .36$  to  $.83$ ). As such, researchers suggested that the characteristics measured by the EPOCH scale could be used to assess positive psychological functioning of youth and to predict well-being in adulthood via PERMA theory based on previous longitudinal studies.

### **EPOCH Applications in Schools**

Given the significance of well-being as it relates to youth life satisfaction and success, researchers

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<sup>1</sup> Measure available online at:

[http://www.peggykern.org/uploads/5/6/6/7/56678211/epoch\\_measure\\_of\\_adolescent\\_well-being\\_102014.pdf](http://www.peggykern.org/uploads/5/6/6/7/56678211/epoch_measure_of_adolescent_well-being_102014.pdf)

have incorporated the EPOCH framework for well-being in schools. In Australia, the foundation for a multidimensional whole school framework based on PERMA theory was applied at an all-boys school to determine the ways well-being impacted the learning community, physical health, and job outcomes (Kern, Waters, White, & Adler, 2015). To assess overall school climate factors, students anonymously completed the measure, and results indicated that higher EPOCH scores were found to be positively related to students' physical health. Similarly, researchers in the United Kingdom used the EPOCH to survey youth from the Americas, Asia Pacific, Europe, and the Middle East with the goal of understanding how school curricula might be modified to foster students' well-being (Cooker, Bailey, Stevenson, & Joseph, 2016).

A Slovakian version of the EPOCH was used to explore relations among high school students' academic perceptions, social perceptions, and well-being through school belonging (Šeboková, Uhláriková, & Halamová, 2018). The results showed that school belongingness mediated self-competence and well-being in which high self-competence was related to higher levels of connectedness, optimism and happiness among youth. These studies highlight the relevance of EPOCH being used as an outcome measure and applied in education settings to establish supportive environments, facilitate learning, and improve youth outcomes.

### **EPOCH Current Status and Future Considerations**

Rose et al. (2017) asserted that the promotion of positive psychological well-being among adolescents is of, "great public health and social significance" (p. 2360). For this reason, these researchers identified several scales aimed to measure mental well-being — they found the EPOCH to be one of four scales with promising positive evidence of validity for use among youth. Though the EPOCH shows strong theoretical and empirical foundations, its psychometric properties need further evaluation for order effects, use among special populations, and language translations as it appears that there is great interest in developing a measure of well-being that is internationally useful (Kern et al., 2016).

### **Five Cs Model Positive Youth Development (PYD) Questionnaire**

A growing framework for conceptualizing and studying adolescent youth development globally is the positive youth development (PYD) perspective (Bowers et al., 2010). PYD capitalizes on the plasticity of adolescent biological development and capacity for positive systematic change through co-actions within the integrated developmental system (Lerner et al., 2018). While several hypotheses have been offered for conceptualizing PYD, this approach generally seeks to assist adolescents with reaching their full potential by helping them align their various strengths with resources that promote healthy development across various systems in their social environment (Lerner, Phelps, Forman, & Bowers, 2009).

One of the most empirically validated frameworks of PYD is the Lerner and Lerner Five Cs Model (Bowers, Geldhof, Johnson, Lerner, & Lerner, 2014; Heck & Subramaniam, 2009; Lerner et al., 2005, 2015; Phelps et al., 2009). Derived from longitudinal data from the 4-H Study of PYD (a collaborative effort to identify individual and contextual factors associated with positive youth development), the Positive Youth Development Questionnaire<sup>2</sup> proposes that youth development is

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<sup>2</sup> Measure available online at:

[https://cyfar.org/sites/default/files/Positive%20youth%20development%20student%20short%20\(10%20yrs%20and%20older\)\\_0.pdf](https://cyfar.org/sites/default/files/Positive%20youth%20development%20student%20short%20(10%20yrs%20and%20older)_0.pdf)

comprised of psychological, behavioral, and social characteristics. These are characterized by the original five interacting Cs: *Competence* (e.g., positive view of one's actions or abilities in social, academic, cognitive, health, and vocational areas), *Confidence* (e.g., sense of self-worth or self-efficacy), *Connection* (e.g., positive, mutual relationships with people and institutions, such as school, family, peers, and community), *Character* (e.g., respecting cultural and societal norms, abiding by standards for good behavior, morality, integrity), and *Caring* (e.g., sympathy and empathy for others; Bowers et al., 2010; Lerner et al., 2005). Adolescents require healthy development in each of these five areas, and as youth build these domains over time, they are more likely to be on a thriving life trajectory rather than become thwarted by engaging in risky or unhealthy behaviors (Bowers et al., 2010). Youth with thriving developmental trajectories are hypothesized to develop a sixth "C"—*Contribution*, which entails behaviors associated with contributing to oneself, family, community, and civil society (Lerner, 2004). Lerner and Lerner's model posits that contribution appears to be supported when the other aforementioned Cs are present.

### **Five Cs Model Psychometric Support**

The conceptual framework behind the Lerner and Lerner's PYD Model has been translated into a measurement model consisting of five latent constructs that map onto a second higher-order PYD latent variable (Lerner et al., 2005, 2015). This is one of the few existing approaches that attempts to integrate multiple indices of PYD (including academic achievement and self-esteem measures) to achieve a holistic conceptualization and assessment of youth development (Geldhof et al., 2014). Robust psychometric support (e.g., longitudinal measurement invariance, configural invariance, among others) has been documented for both children and adolescent populations from a diverse range of cultural and ethnic backgrounds in the United States (Bowers et al., 2010; Jeličić et al., 2007; Lerner et al., 2005; Lewin-Bizan et al., 2010; Phelps et al., 2009). Table 2 provides a summary of key psychometric studies documenting the reliability and validity of the Five Cs model. Notably however, the original 4-H data set used to establish measurement validity across these studies includes a convenience sample of youth from predominately upper- to middle-socioeconomic circumstances. Thus, more work is needed to establish the generalizability of this model to adequately capture experiences of positive youth development among youth of color and youth living in impoverished environments (Lerner et al., 2018).

Among Grade 5 students from the 4-H longitudinal data set, Jeličić and colleagues (2007) found the five latent C constructs of PYD to be significantly predictive of lower engagement in risk-taking behaviors, decreased experiences of depression, and an increase in community contribution type behaviors during Grade 6. Additionally, concurrent significant and positive correlations were found between all Five C indicators and adaptive development (e.g., life satisfaction and empowerment), as well as a significant inverse relation with maladaptive outcomes (e.g., symptoms of anxiety and depression) among a sample of Norwegian adolescents (Holsen, Geldhof, Larsen, & Ardal, 2017).

### **Five Cs Model Applications in Schools**

In their review of cumulative results from investigations of the Five Cs Model, Lerner and colleagues (2018) surmised that youth strengths (e.g., intentional self-regulation, school engagement, hope for the future, spirituality), along with ecological assets (e.g., among family, schools, out of school programs, peer groups, and neighborhoods) have positive predictive validity related to concurrent and future youth thriving, as well as engaged citizenship. With respect to school-based applications of the Five Cs model, few studies have been conducted to date; however, researchers have found positive

associations among emotional/behavioral, school engagement, academic achievement, self-regulation, peer support, and indicators of positive youth development among students in Grades 5 through 8 using the original data from the 4-H sample (Li & Lerner, 2011; Li, Lynch, Calvin, Liu, & Lerner, 2011). In a study examining a sample of 997 Norwegian adolescents, researchers utilized structural equation modeling to examine the relation between students' perception of an empowering school climate and satisfaction with school with the mediating role of the Five Cs model (Holsen et al., 2017). Results indicated that competence, confidence, and connection factors significantly predicted students' perceived satisfaction with school. Competence, confidence, and connection were found to fully mediate school empowerment on school satisfaction, with stronger coefficients obtained for female students (Ardal, Holsen, Diseth, & Larsen, 2017).

### **Five Cs Model Current Status and International Considerations**

The Lerner and Lerner Five Cs PYD Model represents a sound developmental framework with robust psychometric evidence and strong validity to support its use as an exemplar positive psychological assessment model to evaluate positive development among children and adolescents. Measurement validity and specific applications of the model have received growing international interest among researchers and youth-serving programs around the world, including China, Norway, Lithuania, Ireland, El Salvador, Malaysia, among others. For a review of recent psychometric and international applications of the Lerner and Lerner model among youth globally, see Lerner et al. (2018).

### **Covitality Model**

Furlong and colleagues (2014) hypothesized that youth psychological strengths are linked to a higher-order trait, as is the case for many cognitive developmental theories suggesting that a general intelligence factor (*g*) represents a broad mental capacity that influences all intelligent skills. Using the term "Covitality" to represent a "g" factor for psychological strengths, it was defined as the "synergistic effect of positive mental health resulting from the interplay among multiple positive psychological building blocks" (Furlong, You, Renshaw, Smith, & O'Malley, 2013, p. 3). The term Covitality takes a counter approach to comorbidity, the co-occurrence of multiple disorders that often implies interactions associated with worse symptoms. Covitality proposes that the combination of positive psychological traits and its synergic effects matter more than any single individual positive traits for positive youth development and enhanced well-being.

The Social Emotional Health Survey (SEHS; Furlong et al., 2014) was developed to measure Covitality among youth. There are three self-report versions of the SEHS – a Primary version (SEHS-P; Furlong et al., 2013) for students in ages 9-12, a Secondary version (SEHS-S; Furlong, You et al., 2014) for students in ages 13-18, and a Higher Education version (SEHS-HE; Furlong, You, Shishim, & Dowdy, 2017) for college students (not reviewed here as not for use with a school-age population)<sup>3</sup>. The SEHS model views Covitality within a transactional development lens; the development of core psychological assets (e.g., gratitude, empathy, and persistence) promotes positive interpersonal transactions within a child's socioecological systems, which in turn contribute to better developmental outcomes. Youth thrive and flourish in life when they develop positive psychological traits that promote positive day-to-day interactions with family, teachers, and peers.

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<sup>3</sup> *Measures available online at:* <http://www.project-covitality.a2hosted.com/surveys/>

The SEHS-P (Furlong et al., 2013), originally published as the Positive Experiences in School Scale, is a 16-item self-report measure assessing four particular attributes among students in Grades 4-6 — *gratitude* (e.g., “I am lucky to go to my school”), *zest* (e.g., “I wake up in the morning excited to go to school”), *hope/optimism* (e.g., “When I have problems at school, I know they will get better in the future”), and *persistence* (e.g., “When I get a bad grade, I try even harder the next time”) — that are related to youths’ well-being. The SEHS-S (Furlong et al., 2014) is a 36-item measure that assesses 12 positive psychological orientations derived from the social emotional learning (SEL) and PYD literature (e.g., Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Furlong, Gilman, & Huebner, 2014; Masten, Cutuli, Herbers, & Reed, 2009; Zins, Bloodworth, Weissberg, & Walberg, 2007). These 12 psychological assets are associated with four second-order positive social emotional constructs — (a) *belief-in-self* (self-awareness, self-efficacy, persistence); (b) *belief-in-others* (family coherence, peer support, school support); (c) *emotional competence* (emotion regulation, self-control, empathy); and (d) *engaged living* (optimism, zest, gratitude). These four domains load onto a higher-order latent trait, *Covitality*.

### **Covitality Psychometric Support**

Table 3 provides a summary of key studies examining the psychometric properties of the SEHS-P and SEHS-S. Previous studies of the SEHS-P have supported its psychometric properties with primary school students in the U.S. (Furlong et al., 2013), China (Liu, Han, Li, Wang, & Xiao, 2016; Xie, Liu, Yang, & Furlong, 2018), and South Korea (Kim, Dowdy, Furlong, & You, 2019). Additionally, more recent validation studies with diverse cultural samples supported the psychometric properties of the SEHS-P. Specifically, the alpha for the total SEHS-P Covitality score was .88 for a sample of Chinese youth (Wang, Yang, Jiang, & Furlong, 2018) and .93 for a sample of Australian youth (Wilkins, Boman, & Mergler, 2015). Furthermore, the SEHS-P has shown strong internal reliability and convergent validity with other indicators of youth well-being. The SEHS-P was significantly positively correlated with prosocial behaviors at school ( $r = .65$  to  $.66$ ) and school engagement ( $r = .66$ ) in Australian youth, and was significantly ( $p < .001$ ) positively correlated with final exam grades ( $r = .13$  to  $.18$ ), and negatively correlated with depressive symptoms ( $r = -.15$ ) and victimization and perpetration ( $r = -.32$  to  $-.15$ ) among Chinese youth. These studies provide empirical support for using the SEHS-P to identify students’ positive and negative school outcomes in various countries.

An increasing number of studies provide evidence for the psychometric properties of the SEHS-S, including evidence of the reliability and validity of the higher-order model, internal consistency, construct and predictive validity, and invariance across sociocultural and gender groups (Ito, Smith, You, Shimoda, & Furlong, 2015; Lee, You, & Furlong, 2016; Telef & Furlong, 2017; You et al., 2015). For example, internal consistency estimates (Cronbach’s alpha) for the total SEHS-S Covitality score were .93 for a sample of Japanese youth and .94 for a sample of South Korean youth, which was comparable to a U.S. sample (.95) from one of the initial validation studies (e.g., You et al., 2015). Additionally, the SEHS-S overall Covitality score had strong convergent validity with measures of youth global subjective well-being. For example, the Covitality score had a significant positive relation with the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) prosocial behavior subscale ( $r = .40$ ) and a negative relation with the SDQ total difficulties scale among Turkish youths ( $r = -.25$ ; Telef & Furlong, 2017). Furthermore, it was significantly positively correlated with subjective well-being among Korean youths ( $r = .56$ ; Lee et al., 2016) and negatively correlated with depression, anxiety, and stress ( $r = -.22$  to  $-.36$ ) in Chinese youths (Xie et al., 2018).

### **Covitality Model Applications in Schools**

Recognizing the importance of internal assets for positive youth development, international school psychology scholars have adapted and used the SEHS-P and/or the SEHS-S to identify students' psychological strengths and their relations with various school outcomes. The SEHS-P has been translated and applied in elementary schools in Australia (Wilkins et al., 2015), South Korea (Kim et al., 2019), and China (Chan, Yang, Furlong, Dowdy, & Xie, 2019; Wang et al., 2018). Specifically, it was evaluated for its utility in predicting perceived school membership (Chan et al., 2019) and life satisfaction (Kim et al., 2019), as well as for its buffering effect on the relation between verbal peer abuse and psychosocial adjustment in children (Pineda et al., 2018). Additionally, the SEHS-S has been applied in middle and high schools within the U.S. (Carnazzo, Dowdy, Furlong, & Quirk, 2019; Dougherty & Sharkey, 2017), Australia (Boman, Mergler, & Pennell, 2017), South Korea (Kim et al., 2018; Lee et al., 2016), Japan (Ito et al., 2015), and Turkey (Telef & Furlong, 2017). It was utilized to identify positive psychological factors that improve academic achievement (Dougherty & Sharkey, 2017) and school connectedness (Kim et al., 2019), and reduce behavioral concerns such as truancy (Wroblewski, Dowdy, Sharkey, & Kim, 2019). Furthermore, Dowdy and colleagues (2015) discussed the utility of the SEHS-S in assisting schools developing strengths-based prevention plans for students.

### **Covitality Model Current Status and Future Considerations**

Overall, these validation and application studies of the SEHS Covitality measures across the globe provide empirical evidence on its utility with diverse youth populations. The on-going international efforts in research and practice using the SEHS will further improve its psychometric properties and utility in school settings to support educators and school psychologists in identifying and promoting positive psychological orientations among youths to improve their well-being and performance in schools.

#### **FROM RESEARCH TO PRACTICE: APPLICATION WITHIN DIVERSE SCHOOL CONTEXTS**

Thus far, this chapter has been focused on describing and reviewing comprehensive strength-based assessments that can be used to monitor youths' well-being. In addition to understanding the theoretical underpinnings and psychometric support for each of the reviewed measures, it is also critical for practitioners and researchers to understand how these comprehensive strength-based assessments may be used in school-based practice. In general, information obtained from these assessments may be used to monitor the well-being of individual students and can also be used to monitor the well-being of an entire population, taking a public health approach to assessment (Dowdy, Ritchey, & Kamphaus, 2010). Often, schools are interested in using data to help individual students, while also simultaneously being interested in aggregating results to provide population-based information about the broader school population. For example, individual-level results on the SEHS-S may suggest that a particular student may benefit from additional asset-building preventions or early interventions. Additionally, population-level results may highlight that the ninth-grade cohort of males does not feel particularly bonded to the school, suggesting a targeted intervention to increase school belongingness may be especially indicated at the ninth-grade level. Individual and aggregated population-based information can be used in tandem to help school-based practitioners' direct resources appropriately for both students and school systems.

For both individual and population-level assessment goals, schools need a more comprehensive way of measuring wellness. The measures discussed in this chapter thus far have been useful for research



(Moore, Dowdy, Nylund-Gibson, & Furlong, 2019a, 2019b; Moore, Mayworm et al., 2019), but are also valuable for providing schools with readily-available tools to assess and monitor the well-being of students. In order to demonstrate how these measurement tools have been used comprehensively in practice, we provide two brief overviews on the use of the SEHS-S across two unique school-based contexts, one in the United States and the other in Spain. These examples may be more intensive than what all schools may choose to do, but these examples demonstrate how schools are helping make the transition from research to applied practice. In particular, these selected case examples demonstrate how comprehensive strength-based assessments are being integrated within school service delivery models to effectively plan for and deliver interventions. These approaches are consistent with the importance of emphasizing data-based decision making to efficiently and effectively allocate resources and supports.

### **Illustrative School-Based Applications**

#### **Illustration 1: California Local Education Agency Context**

The Flores School District, located in an urban Southern California community, enrolls more than 13,000 students across 20 schools. The SEHS-S is administered as a universal monitoring measure to the students in Grades 7, 9, and 10. During the 2018-19 academic year, 2,912 students completed the SEHS via an online format during the first semester. Screening and responding to students' needs was coordinated and provided by school employed mental health professionals and professionals provided by collaborating community mental health agencies. These professionals included 14 school counselors, six school psychologists, and five community mental health professionals.

#### **Education Agency's Wellness Assessment Goals**

In 2017, the education agency began discussing and developing their student mental health framework and multitiered systems of support (MTSS) in order to address student behavioral and mental health concerns, especially an increasing amount of youth hospitalizations for self-harm. Viewing youth mental health on a continuum from a high-level of emotional well-being to significant student mental health challenges, the district's mental health framework focuses on three tiers:

- Tier 1 supports a positive school climate and promotes well-being and psychosocial resilience for all youth;
- Tier 2 focuses on selected and brief evidenced based strategies to support some students (approximately 15%) at risk of, or with mild mental health challenges; and
- Tier 3 offers intensive, ongoing strategies to support those few students (approximately 5%) with significant coping, functioning, and recovery needs, including referrals to school employed mental health professionals and school based mental health providers.

#### **Student Wellness Screening and Follow up**

At the Tier 1 level, after obtaining parental consent, all students were asked to voluntarily enter their education agency identification number and to complete the social emotional screening assessment, which included the SEHS-S, the Student Emotional Distress Scale (SEDS; Dowdy et al., 2018), and brief measures of life satisfaction and school belonging. The SEHS-S and the SEDS were employed to evaluate students' psychosocial wellness using a dual-factor (Suldo & Shaffer, 2008) complete mental health model which includes a balance of both distress and strength indicators. Students who reported

experiencing elevated past month personal distress on the SEDS (among the top 15% of peers) and who reported low levels of SEHS-S personal strengths (among the lowest 15% of peers) were identified for Tier 2 school support services — across eight secondary schools 3% to 10% of students screened positive.

The high-need students were individually interviewed by site administrators, school counselors, school psychologists, and school-based mental health agency personnel within a few days after taking the survey to clarify needs and link to available services. Interviewers were asked to thank the student for their participation, commend the student on being a positive social change agent by participating in the survey, and provide information to the student on their SEHS-S profile strengths. For the highest need students, a structured interview form documenting the youth's comments was later used to identify areas of concern, available site resources, and the mental health service gaps within the school and community.

### **Screening Effects on Education Agency Programs and Services**

Principals and school team interviewers were invited to a debriefing meeting after all surveys had been completed and students with elevated risk profiles had been interviewed. Since this was a new process and there was expressed hesitation with implementing a universal screener in the district, the meeting began with a discussion of successes and challenges in the process, student and school climate results, and follow-up comments regarding those students with elevated risk profiles. Participants shared their reflections before, during, and after the survey completion. Challenges to the survey process were noted with the goal of improving the process for the 2019-2020 school year. Towards the end of the debriefing meeting, a school wellness action plan was developed and given out to school site teams. Teams discussed screening results with respect to their school climate and the concerns of students with elevated risk profiles. Next steps include district office mental health administration meeting with each school site team to go over their wellness action plans by defining their strengths and concerns, analyzing their student group results, and timelines in achieving their tiered student mental health support goals. Additionally, school site wellness action plans will be shared with the district leadership team for discussion and future professional development for site administration, school employed mental health staff, and parents. School based mental health agencies will work collaboratively with school sites to develop parent workshops and Tier 2 student support groups based on school climate and student data results. Overall, this district exemplifies how the comprehensive assessment of youth psychosocial assets (and distress) can be used to inform multitiered systems of support for all students within a school district.

### **Illustration 2: Strengths-Based Assessment in Diverse Spanish School Ecosystems**

Until a few years ago, school-based preventive interventions for mental health in Spain have focused on detection, identification and early intervention exclusively targeting the presence of psychological problems or difficulties. Recently, assessment approaches have focused not only on identifying the presence of distress and risk factors, but also well-being and protective factors, or personal strengths or resources. Since 2016, the Covitality-Spain team has been implementing psychological assessment practices including strengths and difficulties in children, adolescents, and university students. In all cases, the survey instruments were administered online school-wide within a universal prevention framework. A primary aim in these studies was to collect additional validity information for use of the SEHS-S measures with a population of Spanish youth.

Concerning elementary school age youth in Spain, our team recruited samples of around 800 children aged 8 and 12 years old, and analyzed social and emotional competencies from the Covitality

model to determine relations with variables such as mental health, health-related quality of life, distress, strengths and difficulties, sociometric status, peer bullying, trait emotional intelligence, perfectionism, among others. A key finding from our application of the SEHS was that Covitality mediated the relations between experiences of bullying and psychosocial adjustment. Furthermore, the SEHS-P has also been utilized to assess the efficacy of an intervention aimed at reducing bullying within schools.

Among adolescents, the first study involved 1,042 high school students, and included distress and well-being variables. Findings indicated that Covitality was negatively associated with internalizing and externalizing symptoms, as well as with peer and parent relationship problems. Large, positive associations were found with measures of positive covariates (well-being, health-related quality of life, and prosocial behaviors). A subsequent longitudinal study collected data from a sample of 5,172 secondary and high school students from southeastern Spain (Region of Murcia and Province of Alicante). Distress, well-being, health-related quality of life, psychopathology, and relationships with parents, among other variables, were examined. Results indicated that social emotional competences predicted psychosocial adjustment and mediated the influence of stressful events on psychosocial adjustment. Additionally, SEHS-S results have been used to create group and individual reports (risk warnings, especially in those cases in which adolescents present risk for suicide and/or low mental health). Overall, the comprehensive assessment of strengths among Spain has helped inform the use of strength-based measures while also providing data to inform prevention and intervention services for individuals and groups.

## CONCLUSION

Strength-based assessment has found its niche within contemporary positive psychology and offers a complementary evaluation component for treatment modalities, such as solution-focused therapy (Rashid & Ostermann, 2009). Other scholars have identified over 140 tools with acceptable psychometric properties that may be incorporated into strengths-based assessment practices to assess a variety of positive attributes (e.g., well-being, mindfulness, optimism, resilience, emotional intelligence) among diverse populations (Simmons & Lehmann, 2013). This chapter examined three recently developed comprehensive measures that have been employed in school contexts that assess multiple social-psychological strengths and that can be used schoolwide to monitor the wellness of all students. Having stated this, we recognize that in specific school contexts, other measures grounded in positive psychology constructs and research should be explored. Insert 1 provides key resources that educators can openly access to carefully consider which social emotional strength and asset measures would be optimal for use in each school context. As with any contemporary approach to assessment, we anticipate and look forward to continued progress in the comprehensive assessment of youths' psychosocial assets.

## REFERENCES

- Alford, Z., & White, M. (2015) Positive school psychology. In M. White & A. Murray (Eds.), *Evidence-based approaches in positive education* (pp. 93–109). Dordrecht, Netherlands: Springer. doi:10.1007/978-94-017-9667-5\_5
- Ardal, E., Holsen, I., Diseth, A., & Larsen, T. (2017). The five Cs of positive youth development in a school context: Gender and mediator effects. *School Psychology International*, 39, 1–19. doi:10.1177/0143034317734416

- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development, 67*, 1206–1222. doi:10.2307/1131888
- Boman P., Mergler A., & Pennell, D. (2017). The effects of covitality on well-being and depression in Australian high school adolescents. *Clinical Psychiatry, 3*, 2, 15. doi:10.21767/2471-9854.100045
- Bowers, E. P., Geldhof, G. J., Johnson, S. K., Lerner, J. V., & Lerner, R. M. (Eds.). (2014). Elucidating the developmental science of adolescence: Lessons learned from the 4-H study of positive youth development. *Journal of Youth and Adolescence, 43*(6), Entire Issue.
- Bowers, E. P., Li, Y., Kiely, M. K., Brittian, A., Lerner, J. V., & Lerner, R. M. (2010). The five Cs model of positive youth development: A longitudinal analysis of confirmatory factor structure and measurement invariance. *Journal of Youth and Adolescence, 39*, 720–735. doi:10.1007/s10964-010-9530-9
- Butler, J., & Kern, M. L. (2016). The PERMA-Profiler: A brief multidimensional measure of flourishing. *International Journal of Wellbeing, 6*, 1–48. doi:10.5502/ijw.v6i3.526
- Carnazzo, K., Dowdy, E., Furlong, M. J., & Quirk, M. P. (2019). An evaluation of the Social Emotional Health Survey—Secondary for use with students with learning disabilities. *Psychology in the Schools, 56*, 433–446. doi:10.1002/pits.22199
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review, 30*, 879–889. doi:10.1016/2010.01.006
- Chan, W. Y., Ou, S. R., & Reynolds, A. J. (2014). Adolescent civic engagement and adult outcomes: An examination among urban racial minorities. *Journal of Youth and Adolescence, 43*, 1829–1843. doi:10.1007/s10964-014-0136-5
- Chan, M., Yang, C., Furlong, M. J., Dowdy, E., & Xie, J-S. (2019). *Association between social-emotional strengths and school membership: A cross-cultural comparison*. Manuscript under review.
- Christopoulou, M., Lakioti, A., Pezirkianidis, C., Karakasidou, E., & Stalikas, A. (2018). The role of grit in education: A systematic review. *Psychology, 9*, 2951–2971. doi:10.4236/psych.2018.915171
- Cooker, L., Bailey, L., Stevenson, H., & Joseph, S. (2016). *Social and emotional well-being in IB world schools (age 3-19): Final report*. Nottingham, UK: University of Nottingham, School of Education.
- Dougherty, D., & Sharkey, J. D. (2017). Reconnecting youth: Promoting emotional competence and social support to improve academic achievement. *Children and Youth Services Review, 74*, 28–34. doi:10.1016/j.childyouth.2017.01.021
- Dowdy, E., Furlong, M. J., Raines, T. C., Boverly, B., Kauffman, B., Kamphaus, R., Price, M., ... Murdock, J. (2015). Enhancing school-based mental health services with a preventive and promotive approach to universal screening for complete mental health. *Journal of Educational and Psychological Consultation, 25*, 178–197. doi:10.1080/10474412.2014.929951
- Dowdy, E., Ritchey, K., & Kamphaus, R.W. (2010). School-based screening: A population-based approach to inform and monitor children's mental health needs. *School Mental Health, 2*, 166–176. doi:10.1007/s12310-010-9036-3
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*, 405–432. doi:10.1111/j.1467-8624.2010.01564.x
- Eskreis-Winkler, L., Shulman, E. P., Beal, S. A., & Duckworth, A. L. (2014). The grit effect: Predicting retention in the military, the workplace, school and marriage. *Frontiers in Psychology, 5*, 36. doi:10.3389/fpsyg.2014.00036
- Furlong, M. J., Gilman, R., & Huebner, E. S. (Eds.). (2014). *Handbook of positive psychology in schools* (2nd ed.). New York, NY: Routledge/Taylor & Francis.
- Furlong, M. J., You, S., Renshaw, T. L., O'Malley, M. D., & Rebelez, J. (2013). Preliminary development of the

- Positive Experiences at School Scale for elementary school children. *Child Indicators Research*, 6, 753–775. doi:10.1007/s12187-013-9193-7
- Furlong, M. J., You, S., Renshaw, T. L., Smith, D. C., & O'Malley, M. D. (2014). Preliminary development and validation of the Social and Emotional Health Survey for secondary students. *Social Indicators Research*, 117, 1011–1032. doi:10.1007/s11205-013-0373-0
- Furlong, M. J., You, S., Shishim, M., & Dowdy, E. (2017). Development and validation of the Social Emotional Health Survey—Higher Education version. *Applied Research in Quality of Life*, 12, 343–367. <http://link.springer.com/article/10.1007/s11482-016-9464-9>
- Geldhof, G. J., Bowers, E. P., Boyd, M. J., Mueller, M. K., Napolitano, C. M., Schmid, K. L., ... Lerner, R. M. (2014). Creation of short and very short measures of the Five Cs of positive youth development. *Journal of Research on Adolescence*, 24, 163–176. doi:10.1111/jora.12039
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38, 581–586. doi:10.1111/j.1469-7610.1997.tb01545.x
- Gottlieb, R., & Froh, J. (2019). Gratitude and happiness in adolescents: A qualitative analysis. In N. R. Siltan (Eds.), *Scientific concepts behind happiness, Kindness, and empathy in contemporary society* (pp. 1–19). Hershey, PA: IGI Global.
- Heck, K. E., & Subramaniam, A. (2009). *Youth development frameworks*. [Monograph]. 4-H Center for Youth Development. Davis, CA: University of California.
- Holsen, I., Geldhof, G. J., Larsen, T., & Aardal, E. (2017). The Five Cs of positive youth development in Norway: Assessment and associations with positive and negative outcomes. *International Journal of Behavioral Development*, 41, 559–569. doi:10.1177/0165025416645668
- Hoyt, L. T., Chase-Lansdale, P. L., McDade, T. W., & Adam, E. K. (2012). Positive youth, healthy adults: Does positive well-being in adolescence predict better perceived health and fewer risky health behaviors in young adulthood? *Journal of Adolescent Health*, 50, 66–73. doi:10.1016/2011.05.002
- Ito, A., Smith, D. C., You, S., Shimoda, Y., & Furlong, M. J. (2015). Validation of the Social Emotional Health Survey—Secondary for Japanese students. *Contemporary School Psychology*, 19, 243–252. doi:10.1007/s40688-015-0068-4
- Jeličić, H., Bobek, D., Phelps, E. D., Lerner, J. V., & Lerner, R. M. (2007). Using positive youth development to predict contribution and risk behaviors in early adolescence: Findings from the first two waves of the 4-H Study of Positive Youth Development. *International Journal of Behavioral Development*, 31, 263–273. doi:10.1177/0165025407076439
- Kern, M. L., Waters, L. E., Adler, A., & White, M. A. (2015). A multidimensional approach to measuring well-being in students: Application of the PERMA framework. *The Journal of Positive Psychology*, 10, 262–271. doi:10.1080/17439760.2014.936962
- Kern, M. L., Benson, L., Steinberg, E. A., & Steinberg, L. (2016). The EPOCH measure of adolescent well-being. *Psychological Assessment*, 28, 586–597. doi:10.1037/pas0000201
- Kern, M. L., Zeng, G., Hou, H., & Peng, K. (2018). The Chinese version of the EPOCH measure of adolescent well-being: Testing cross-cultural measurement invariance. First published online 28 July, 2018. *Journal of Psychoeducational Assessment*. doi:10.1177/0734282918789561
- Kim, E., Dowdy, E., & Furlong, M. J. (2014). An exploration of using a dual-factor model in school-based mental health screening. *Canadian Journal of School Psychology*, 29, 127–140. doi:10.1177/0829573514529567
- Kim, E., Dowdy, E., Furlong, M., & You, S. (2018). Complete mental health screening: psychological strengths and life satisfaction in Korean students. *Child Indicators Research*. First Online: 23 May 2018. doi:10.1007/s12187-018-9561-4
- Kim, E. K., Furlong, M. J., & Dowdy, E. (2019). Adolescents' personality traits and positive psychological orientations: Relations with emotional distress and life satisfaction mediated by school connectedness.

- Child Indicators Research*. First online January 2019. doi:10.1007/s12187-019-9619-y
- Lee, S., You, S., & Furlong, M. J. (2016). Validation of the Social Emotional Health Survey for Korean school students. *Child Indicators Research*, *9*, 73–92. doi:10.1007/s12187-0149294-y
- Lerner R. M. (2004). *Liberty: Thriving and civic engagement among American youth*. Thousand Oaks, CA: Sage.
- Lerner, R. M., Lerner, J. V., Almerigi, J., Theokas, C., Phelps, E., Gestsdottir, S., ... Von Eye, A. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth-grade adolescents: Findings from the first wave of the 4-H Study of Positive Youth Development. *Journal of Early Adolescence*, *25*, 17–71. doi:10.1177/0272431604272461
- Lerner, R. M., Lerner, J. V., Bowers, E., & Geldhof, G. J. (2015). Positive youth development: A relational developmental systems model. In W. F. Overton & P. C. Molenaar (Eds.), R. M. Lerner (Ed-in-chief), *Handbook of child psychology and developmental science: Theory and method* (7th ed., pp. 607– 651). Hoboken, NJ: Wiley.
- Lerner, R. M., Lerner, J. V., Geldhof, G. J., Gestsdóttir, S., King, P. E., Sim, A. T. R., ... Batanova, M. (2018). Studying positive youth development in different nations: Theoretical and methodological issues. In J. E. Landsford & P. Banati (Eds.), *Handbook of adolescent development research and its impact on global policy* (pp. 68–83). New York, NY: Oxford University Press.
- Lerner, J. V., Phelps, E., Forman, Y., & Bowers, E. P. (2009). Positive youth development. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology (3rd ed.): Individual bases of adolescent development* (Vol 1., pp. 524–558). Hoboken, NJ: Wiley.
- Lenzi, M., Dougherty, D., Furlong, M. J., Dowdy, E., & Sharkey, J. D. (2015). The configuration protective model: Factors associated with adolescent behavioral and emotional problems. *Journal of Applied Developmental Psychology*, *38*, 49–59. <http://www.sciencedirect.com/science/article/pii/S0193397315000179>
- Lewin-Bizan, S., Doyle Lynch, A., Fay, K., Schmid, K., McPherran, C., Lerner, J. V., & Lerner R. M. (2010). Trajectories of positive and negative behaviors from early- to middle-adolescence. *Journal of Youth and Adolescence*, *39*, 751–763. doi:10.1007/s10964-010-9532-7
- Li, Y., & Lerner, R. M. (2011). Trajectories of school engagement across adolescence: Implications for academic achievement, substance use, depression, and delinquency. *Developmental Psychology*, *47*, 233– 247. doi:10.1037/a0021307
- Li, Y., Lynch, A. D., Kalvin, C., Liu, J., & Lerner, R. M. (2011). Peer relations as a context for the development of school engagement. *International Journal of Behavioral Development*, *35*, 329– 342. doi:10.1177/0165025411402578
- Liu, H., Han, B., Li, X., Wang L., & Xiao Q. (2016). Reliability and validity of Social Emotional Health Survey-Elementary in Chinese children. *Chinese Journal of Clinical Psychology*, *24*, 450–457. doi:10.16128/j.cnki.1005-3611.2016.03.015
- Loton, D. J., & Waters, L. E. (2017). The mediating effect of self-efficacy in the connections between strength-based parenting, happiness and psychological distress in teens. *Frontiers in Psychology*, *8*, 1–13. doi:10.3389/fpsyg.2017.01707
- Masten, A. S., Cutuli, J. J., Herbers, J. E., & Reed, M.-G. J. (2009). Resilience in development. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (2nd ed., pp. 117–131). New York, NY: Oxford University Press.
- Moore, S., Dowdy, E., Nylund-Gibson, K., & Furlong, M. J. (2019a). *An empirical approach to complete mental health classification in adolescents*. *School Mental Health*. First Online 23 Jan 2019. <https://doi.org/10.1007/s12310-019-09311-7>
- Moore, S., Dowdy, E., Nylund-Gibson, K., & Furlong, M. J. (2019b). A latent transition analysis of the longitudinal stability of dual-factor mental health in adolescence. *Journal of School Psychology*, *73*, 56–73. doi:10.1016/j.jsp.2019.03.003

- Moore, S., Mayworm, A. M., Stein, R., Sharkey, J. D., & Dowdy, E. (2019). Languishing students: Linking complete mental health screening in schools to Tier II intervention. *Journal of Applied School Psychology*, First online, 27 March, 2019. doi:10.1080/15377903.2019.1577780
- Oberle, E., Guhn, M., Gadermann, A. M., Thomson, K., & Schonert-Reichl, K. A. (2018). Positive mental health and supportive school environments: A population-level longitudinal study of dispositional optimism and school relationships in early adolescence. *Social Science & Medicine*, 214, 154–161. doi:10.1016/j.socscimed.2018.06.041
- Pedrotti, J. T. (2018). The will and the ways in school hope as a factor in academic success. In M. W. Gallagher & S. J. Lopez (Eds.), *The Oxford handbook of hope* (chap. 9). New York, NY: Oxford University Press.
- Phelps, E., Zimmerman, S., Warren, A. E. A., Jeličić, H., von Eye, A., & Lerner, R. M. (2009). The structure and developmental course of positive youth development (PYD) in early adolescence: Implications for theory and practice. *Journal of Applied Developmental Psychology*, 30, 571–584. doi:10.1016/j.appdev.2009.06.003
- Pineda, D., Piqueras, J. A., Martinez, A., Rodriguez-Jimenez, T., Martínez Gonzalez, A. E., Santamaria, P., & Furlong, M. J. (2018). *A new instrument for covitality: The revised Social Emotional Health Survey–Primary in a Spanish sample of children*. 14<sup>th</sup> European Conference on Psychological Assessment, Lisbon, Portugal, July.
- Rashid, T., & Ostermann, R. F. O. (2009). Strength-based assessment in clinical practice. *Journal of Clinical Psychology: In Session*, 65, 488–498. doi:10.1002/jclp.20595
- Rose, T., Joe, S., Williams, A., Harris, R., Betz, G., & Stewart-Brown, S. (2017). Measuring mental wellbeing among adolescents: A systematic review of instruments. *Journal of Child and Family Studies*, 26, 2349–2362. doi:10.1007/s10826-017-0754-0
- Šeboková, G., Uhláriková, J., & Halamová, M. (2018). Cognitive and social sources of adolescent well-being: Mediating role of school belonging. *Studia Psychologica*, 60, 16–29. doi:10.21909/sp.2018.01.749
- Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York, NY: Simon and Schuster.
- Simmons, C. A., & Lehmann, P. (2013). *Tools for strength-based assessment and evaluation*. New York, NY: Springer.
- Suldo, S. M., & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review*, 37, 52–68.
- Telef, B. B. (2016). Validity and reliability study of Positive Experiences at School Scale (Okulda Pozitif Yaşantılar Ölçeği geçerlik ve güvenilirlik çalışması). *Journal of Human Sciences*, 13, 2475–2487. <https://j-humansciences.com/ojs/index.php/IJHS/article/view/3562>
- Telef, B. B., & Furlong, M. J. (2017). Adaptation and validation of the Social Emotional Health Survey-Secondary into Turkish culture. *International Journal of School & Educational Psychology*, 5, 255–265. doi:10.1080/21683603.2016.1234988
- Wang, C., Yang, C., Jiang, X., & Furlong, M. J. (2018). Validation of the Chinese version of the Social Emotional Health Survey-Primary. *International Journal of School & Educational Psychology*, 6, 62–74. doi:10.1080/21683603.2016.1272026
- Wilkins, B., Boman, P., & Mergler, A. (2015). Positive psychological strengths and school engagement in primary school children. *Cogent Education*, 2(1), 1–11. doi:10.1080/2331186X.2015.1095680
- Wroblewski, A. P., Dowdy, E., Sharkey, J. D., & Kim, E. K. (2019). Social-emotional screening to predict truancy severity: Recommendations for educators. *Journal of Positive Behavior Interventions*, 21, 19–29.

doi:10.1177/1098300718768773

Xie, J., Liu, S., Yang, C., & Furlong, M. J. (2018). Chinese version of Social and Emotional Health Survey–Primary. *Chinese Journal of Clinical Psychology, 26*(3), 522–527.

You, S., Dowdy, E., Furlong, M. J., Renshaw, T., Smith, D. C., & O'Malley, M. D. (2014). Further validation of the Social and Emotional Health Survey for high school students. *Applied Quality of Life Research, 9*, 997–1015. doi:10.1007/s11482-013-9282-2

You, S., Furlong, M. J., Felix, E., & O'Malley, M. D. (2015). Validation of the Social and Emotional Health Survey for five sociocultural groups: Multigroup invariance and latent mean analyses. *Psychology in the Schools, 52*, 349–362. doi:10.1002/pits.21828

Zins, J. E., Bloodworth, M. R., Weissberg, R. P., & Walberg, H. J. (2007). The scientific base linking social and emotional learning to school success. *Journal of Educational & Psychological Consultation, 17*(2–3), 191–210. doi:10.1080/10474410701413145



Table 1. *Summary of Key Engagement, Perseverance, Optimism, Connectedness, and Happiness Measure Psychometric Studies*

Study	Grade	Gender	Sample	Reliability <sup>b</sup>		Validity <sup>c</sup>
Kern et al. (2015)  N=514	8–11	100% M	Australia	Engagement Perseverance Optimism Connectedness Happiness	.68 .83 .77 .78 .86	<i>Structural:</i> Acceptable fit five-factor model <i>Concurrent:</i> EPOCH-E with School Engagement (.56), EPOCH-P with Grit (.78), EPOCH-O with Hope (.75), EPOCH-H with PANAS-P (.71)
Kern et al. (2016) 10 samples combined  N=3,826	7–12	Range <sup>a</sup>	USA Australia	Engagement Perseverance Optimism Connectedness Happiness Overall	.74-.77 .79-.80 .76-.81 .77-.81 .83-.86 .90-.92	<i>Structural:</i> Acceptable fit five-factor model <i>Concurrent:</i> Depression (-.13–-.53) Anxiety (-.02–-.36), Aggression (-.04–-.44), Physical Vitality (.34–.58), Academic Performance (.29–.53), Life Satisfaction (.36–.83)
Loton & Waters (2017)  N=11,138	10-18 years	59% M 41% F	Australia	Engagement Perseverance Optimism Connectedness Happiness	— — — — .89	N/A
Sebokova et al. (2018)  N=248	9	38% M 62% F	Slovakia	Engagement Perseverance Optimism Connectedness Happiness	.76/.78 <sup>d</sup> .73/.69 .77/.77 .80/.83 .86/.87	<i>Structural:</i> Acceptable fit five-factor model
Kern et al. (2018)  N=3,620 (China) N=3,098 (Western)	9-19 years	55% M 45% F	China Western	Engagement Perseverance Optimism Connectedness Happiness	.77/.77 <sup>e</sup> .79/.80 .77/.81 .77/.80 .90/.87	<i>Structural:</i> Acceptable fit five-factor model; invariance gender, age, and country

<sup>a</sup> The researchers used 10 sample groups; percentages are reported separately for each sample in Kern et al. (2016, p. 23).

<sup>b</sup> All reliabilities are alpha coefficients unless otherwise indicated.

<sup>c</sup> All validity coefficients are Pearson correlation coefficients.

<sup>d</sup> Reliability coefficients reported based on 6-month test-retest.

<sup>e</sup> Chinese/Western Omega coefficients

*Note.* EPOCH-E = Engagement; EPOCH-P = Perseverance; EPOCH-O = Optimism; EPOCH-H = Happiness.

Table 2. Summary of Key Lerner and Lerner 5C Model of Positive Youth Development Questionnaire Psychometric Studies

Study	Grade	Gender	Sample		Reliability <sup>a</sup>	Validity <sup>b</sup>
Lerner et al. (2005)	5	53% F 47% M	European Amer. Latin Amer. African Amer. Native Amer. Asian/Pac. Is.	58% 18% 8% 4% 3%	Competence .64-.72 Confidence .71 Connection .89 Character .68-.88 Caring .87	<i>Structural:</i> Adequate to good fit for second-order model with covarying residual terms <i>Concurrent:</i> NR
Jeličić et al. (2007)	5-6	53% F 47% M	European Amer. Latin Amer. African Amer. Native Amer. Asian Amer.	55% 15% 5% 2% 4%	Competence .56-.65 Confidence .69-.70 Connection .78-.89 Character .68-.92 Caring —	<i>Structural:</i> Good fit for second-order model covarying residual terms <i>Concurrent:</i> Depression (.24), Risk Behaviors (-.35), Contribution (-.58)
Phelps et al. (2009)	5-7		European Amer. Latin Amer. African Amer. Asian Amer. Amer. Indian	53-67% 11-18% 7-8% 3-4% 2-3%	Competence .62-.80 Confidence .70-.80 Connection .75-.89 Character .67-.93 Caring .86-.90	<i>Structural:</i> Good fit second-order longitudinal model across grades covarying residual terms; sex differences in PYD <i>Concurrent:</i> NR
Bowers et al. (2010)	8-10	62% F 38% M	European Amr. African-Amer. Latin Amer. Asian Amer.	67% 8% 8% 3%	Competence .76-.86 Confidence .74-.88 Connection .82-.97 Character .59-.89 Caring .74-.88	<i>Structural:</i> Strong fit second-order model, longitudinal invariance across adolescence <i>Concurrent:</i> NR
Lewin-Bizan et al. (2010)	5-10	58% F 41% M	European Amer. Latin Amer. African Amer. Asian/Pac. Is. Native Amer.	65% 12% 7% 3% 2%	Competence .68-.88 Confidence .74-.88 Connection .88-.92 Character .89-.93 Caring .83-.89	<i>Structural:</i> Development trajectory mixture model identified good fit four trajectories of PYD, with sex differences in trajectories of PYD <i>Concurrent:</i> NR

<sup>a</sup> Reliabilities are alpha coefficient ranges reported across the included grade levels.

<sup>b</sup> Validity coefficients are structural equation model path coefficients where available.

*Note.* All study samples were collected in the United States from participants in the longitudinal 4-H study of Positive Youth Development.

Table 3. Summary of Key Social Emotional Health Survey Psychometric Studies

Study	Grade	Gender	Sample	Reliability <sup>a</sup>	Validity <sup>b</sup>		
<b>SEHS-Secondary</b>							
Furlong et al. (2014)	8,10, 12	50% F 50% M	USA Latin Amer.	72%	Belief in Self Belief in Others Emotion Comp. Engaged Living Covitality	n/a n/a n/a n/a .92	<i>Structural:</i> Acceptable fit second-order model, invariance gender <i>Concurrent<sup>c</sup>:</i> SWB (.89), Academic (.08), School safety (.12)
N=4,189							
You et al. (2014)	9-12	47% F 53% M	USA Latin Amer.	72%	Belief in Self Belief in Others Emotion Comp. Engaged Living Covitality	.76 .81 .78 .87 .91	<i>Structural:</i> Acceptable fit second-order model, invariance gender and age. <i>Concurrent:</i> BESS (-.63)
N=2,240							
Kim et al. (2014)	10	56% F 44% M	USA Other European Amer. Latin Amer.	50% 24% 12%	Belief in Self Belief in Others Emotion Comp. Engaged Living Covitality	n/a n/a n/a n/a .90	<i>Structural:</i> n/a <i>Concurrent:</i> SWB (.57)
N=118							
You et al. (2015)	9-12	51% F 49% M	USA Latin Amer. White Amer. African Amer. Asian Amer.	51% 17% 7% 8%	Belief in Self Belief in Others Emotion Comp. Engaged Living Covitality	n/a n/a n/a n/a .95	<i>Structural:</i> Acceptable fit second-order model, invariance gender and race/ethnicity
N=14,171							
Ito et al. (2015)	7-9	52% F 48% M	Japan	100%	Belief in Self Belief in Others Emotion Comp. Engaged Living Covitality	.78 .87 .82 .88 .93	<i>Structural:</i> Acceptable fit second-order model, invariance gender
N=975							
Lee et al. (2016)	7-12	56% F 44% M	Korea	100%	Belief in Self Belief in Others Emotion Comp. Engaged Living Covitality	.84 .85 .82 .88 .94	<i>Structural:</i> Acceptable fit second-order model, invariance gender <i>Concurrent:</i> SWB (.56)
N=686							
Telef & Furlong (2017)	9-12	55% F 45% M	Turkey USA	50% 50%	Belief in Self Belief in Others Emotion Comp. Engaged Living Covitality	.76 .77 .74 .80 .89	<i>Structural:</i> Latent mean differences on belief-in-self domain (ES = .16) <i>Concurrent:</i> SWB (.66)
N=2,242							
Xie et al. (2018)	7-12	52% F 48% M	China	100%	Belief in Self Belief in Others Emotion Com. Engaged Living Covitality 3-wk test-retest	.77 .81 .80 .88 .92 .89	<i>Structural:</i> Acceptable fit second-order model, invariance gender and grade <i>Concurrent:</i> LS (.46), PANAS-P (.46), DASS-D (-.36), DASS-A (-.25), DASS-S (-.22)
N=3,750							
<b>SEHS-Primary</b>							
Furlong et al. (2013)	4-6	52% F 48% M	USA Latin Amer. European Amer. Other	79% 16% 5%	Gratitude Zest Optimism Persistence Covitality	.70 .75 .66 .76 .88	<i>Structural:</i> Acceptable fit second-order model, invariance gender <i>Concurrent:</i> Prosocial (.65/.64), PSSM-A (.55/.48), PSSM-R (-.34/.27) (M/F shown)
N=1,995							
Telef (2016)	4-8	52% F 48% M	Turkey	100%	Gratitude Zest Optimism Persistence Covitality	.70 .80 .63 .73 .86	<i>Structural:</i> Acceptable fit second-order model <i>Concurrent:</i> School satisfaction (.74), PANAS-P (.46), PANAS-N (-.28)
N=635							

Wang et al. (2018)	4-6	51% F 49% M	China	100 %	Gratitude Zest Optimism Persistence Covitality	.84 .82 .80 .83 .93	<i>Structural:</i> Acceptable fit second- order model, invariance gender <i>Concurrent:</i> Prosocial behavior (.65), Depression (-.32), Bullying perpetration (-.25), Exam grades (.13 to .18)
N=653							

<sup>a</sup> All reliabilities are alpha coefficients unless otherwise indicated.

<sup>b</sup> All validity coefficients are Pearson correlation coefficients or structural equation model path coefficients.

<sup>c</sup> Covitality scores are the sum of all SEHS-S and SEHS-P items.

*Note.* BESS = Behavioral and Emotional Screening Scale; DASS-D = Depression Anxiety and Stress 21-Depression; DASS-A = Depression Anxiety and Stress 21- Anxiety; DASS-S = Depression Anxiety and Stress 21- Stress; Emotion Comp. = Emotional Competence domain; PSSM-A = Psychological Sense of School Membership-Acceptance; PANAS-P = Positive and Negative Affect Scale-Positive; PANAS-N = Positive and Negative Affect Scale-Negative; PSSM-R = Psychological Sense of School Membership-Rejection; SEHS = Social Emotional Health Survey, Covitality = SEHS-S and SEHS-P total score; SWB = subjective well-being.

**Insert 1. Key Resources to Explore Positive Psychology Assessments for Use in School Contexts****Center for Social Emotional Learning (CASEL) Assessment Guide**

CASEL established an assessment workgroup to identify validated measures of social emotional learning (SEL) skills and orientations to include in a SEL assessment guide. This guide includes a catalog of measures and resources for researchers and practitioners to select and use appropriate measures.

Website: <https://measuringSEL.casel.org/access-assessment-guide/>

**Children's Worlds: International Study of Children's Well-Being**

UNICEF hosted a meeting in 2009 involving researchers from the International Society for Child Indicators (ISCI) to develop a child well-being measure that supported international research. Subsequently, a measure was developed and has been employed in several studies. The latest study includes students (ages 8, 10, and 12) from 40 countries. The measures used in this study are available online.

Website: <http://www.isciweb.org/>

**Office of Economic Development Study on Social Emotional Skills**

This is an ambitious multi-year project (2016–2020) that set out to carefully define a set of social emotional learning constructs and to craft a measure that can be used internationally. The main study will gather information on students' social and emotional skills; family, school, and community learning contexts; and background characteristics of students, teachers, and parents. The student SEL measurement is grounded in the Big 5 personality model and assesses the following constructs: *Task Performance* (achievement motivation, responsibility, persistence, self-control); *Emotional Regulation* (stress resistance, optimism, emotional control); *Collaboration* (empathy, trust, co-operation); *Open-Mindedness* (tolerance, curiosity, creativity); *Engaging with Others* (sociability, assertiveness, energy); and *Compound Skills* (critical thinking, metacognition, self-efficacy).

Website: <http://www.oecd.org/education/ceri/thestudyonsocialandemotionalskills.htm>

*Project overview document:* Office of Economic Development. (n.d.). Social and emotional skills: Well-being, connectedness and success. Paris, France: Author. Available from, [https://www.oecd.org/education/school/UPDATED%20Social%20and%20Emotional%20Skills%20-%20Well-being,%20connectedness%20and%20success.pdf%20\(website\).pdf](https://www.oecd.org/education/school/UPDATED%20Social%20and%20Emotional%20Skills%20-%20Well-being,%20connectedness%20and%20success.pdf%20(website).pdf)

**Project Covitality**

This multiyear (2016–2020) project was funded by the U.S. Office of Education, Institute of Education Sciences. It focused on the further validation of the Social Emotional Health Survey–Secondary. A cross-sectional sample of more than 25,000 students and a three-year longitudinal sample of more than 1,000 high school students were used in validation studies. These measures support the use of universal school complete social emotional wellness screening and monitoring.

Website: <http://www.project-covitality.info>

**RAND Education Assessment Finder: Measuring Social, Emotional, and Academic Competencies**

The RAND research group has created an online searchable resource that education agencies can use to identify measures of social and emotional constructs, including a range of positive psychological constructs. This resource includes a user guide on how to access and search the measure repository and a practitioner guide that education agencies can use to consider which measures best match interests and needs.

Website: <https://www.rand.org/education-and-labor/projects/assessments.html>

*User Guide:* Hamilton, L. S., Stecher, B. M., Schweig, J., & Baker, G. (2018). *RAND education assessment finder: User instructions*. Available from, [https://www.rand.org/content/dam/rand/pubs/tools/TL300/TL308/RAND\\_TL308z1.pdf](https://www.rand.org/content/dam/rand/pubs/tools/TL300/TL308/RAND_TL308z1.pdf)

*Practitioner Guide:* Taylor, J. J., Buckley, K., Hamilton, L. S., Stecher, B. M., Read, L., & Scgweig, J. (2018). *Choosing and using SEL competency assessments: What schools and districts need to know*. Available from, <http://measuringSEL.casel.org/pdf/Choosing-and-Using-SEL-Competency-Assessments-What-Schools-and-Districts-Need-to-Know.pdf>