



SEHS-S Manual (2020) Version 1.0

**Modification and Standardization of
Social Emotional Health Survey-Secondary — 2020 Edition**

UC Santa Barbara Project Covitality California Student Wellness Study

The research reported here was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant # R305A160157 to the University of California, Santa Barbara. The opinions expressed are those of the authors and do not represent views of the Institute of Education Sciences or the U.S. Department of Education.

Suggested citation: Furlong, M. J., Nylund-Gibson, K., Dowdy, E., Wagle, R., Hinton, T., & Carter, D. (2020). *Modification and standardization of Social Emotional Health Survey-Secondary— 2020 edition*. Santa Barbara, CA, University of California Santa Barbara, International Center for School Based Youth Development.

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SEHS-S (2015) and SEHS-S (2020) Versions

Our UC Santa Barbara research team engages in ongoing efforts to enhance and validate the Social Emotional Health Surveys (Primary, Secondary, and Higher Education). The initiative to enhance the secondary version is supported by an Institute of Education Sciences grant (#R305A160157, 2016-2020), which provides funding to refine, standardize, and accumulate additional validation evidence for the secondary version. This effort has now produced an updated measure, which we call the Social Emotional Health Survey (2020) version. The SEHS-S (2020) represents our efforts to refine and standardize items and response formats and to further extend validation evidence for the covitality construct. Updated information about the SEHS-S (2020) can be requested via the UC Santa Barbara Project Covitality website: www.covitalityucsb.info/sehs-measures/index.html

A previous technical manual (Furlong, Dowdy, & Nylund-Gibson, 2018) reported on the development and validation of the original Social Emotional Health Survey-Secondary (carried out between 2012 and 2017). We shared the first version of the SEHS with colleagues because it had sufficient validation evidence based on research completed through 2015; hence, it is called the SEHS-S (2015) version. We want to convey to our colleagues that the original SEHS-S (2015) version has an impressive body of evidence supporting its core psychometric properties, structural validity, criterion, and predictive validity (see: www.covitalityucsb.info/research.html for a list of research studies). The SEHS-S (2015) has been used in scores of research projects and by schools in 13 U.S. states to support universal monitoring of students' complete mental wellness. Hence, the SEHS-S (2015) can be used with confidence for research and applied program continuity purposes.

We encourage the non-commercial use of the SEHS surveys for research and in support of school programs designed to foster youths' complete social emotional health. Please let us know about your interest in using the SEHS surveys: mfurlong@ucsb.edu

Social Emotional Health Survey-Secondary Suggested Citations

Furlong, M. J., Dowdy, E., & Nylund-Gibson, K. (2018). *Social Emotional Health Survey-Secondary (2015 edition)*. Santa Barbara, CA, University of California Santa Barbara, International Center for School Based Youth Development.

Furlong, M. J., Nylund-Gibson, K., Dowdy, E., Wagle, R., Hinton, T., & Carter, D. (2020). *Modification and standardization of Social Emotional Health Survey-Secondary— 2020 edition*. Santa Barbara, CA, University of California Santa Barbara, International Center for School Based Youth Development.

Introduction

Whether you are an experienced educator or an educator-in-training, pause for a moment and consider the passions and aspirations you had when you decided to enter the profession. What did you hope to accomplish? What influences did you want to have on children's lives? If your professional motivation is similar to our own, we suspect that you did not enter the education profession primarily with the aim of helping children to just meet behavioral goals like have a "quiet voice" and "quiet body" in the classroom. Nor did you enter the profession, for example, because you had a particular fascination with recording the number of words per minute a student can read. While no one would argue against the invaluable benefits that behavioral self-control or reading fluency bring to a child, many of us did not enter the education profession only with these developmental outcomes in mind. Certainly, parents want their children to not cause disturbances in class, to be respectful, and to be able to decode words efficiently and use reading to expand their knowledge and love of learning. However, what parents want most is the same thing that motivated many of us to enter the education profession—the aspiration of helping youth develop into human beings that live their lives with meaning, purpose, and zeal—realizing their highest potential. If your professional vision includes fostering all children's capacity to use their quiet voices, quiet bodies, reading fluency, and other academic skills to foster complete social and emotional health and thriving development, then we believe that our work on Project Covitality will be of interest to you.

Seeing Youth Through a Positive Lens

Like many educators, we wanted to know more about which attributes are related to well-being and overall thriving development. The re-emergence of positive psychology in the past 20 years (Furlong, Gilman, & Huebner, 2014; Seligman, Ernst, Gillham, & Linkins, 2009) provided us inspiration because it brought a renewed focus on psychological dispositions such as gratitude (Froh, Bono, & Emmons, 2010) and hope (Snyder, Lopez, Shorey, Rand, & Feldman, 2003) and their relations with youths' subjective well-being and academic achievement. Similarly, the youth development (e.g., Chafouleas & Bray, 2004; Huebner & Gilman, 2003; Huebner & Hills, 2011; Lerner, Dowling, & Anderson, 2003) and Developmental Asset (e.g., Benson & Scales, 2012) literatures emphasized the value of examining youths' positive dispositions as its own desirable end. The Developmental Asset approach further provided evidence that robust developmental progress is more often found among youths who have the greatest number of internal assets and external resources. The aim of this strength-focused research has been to create and validate practices that are integrated into multileveled systems of student support and function to facilitate "psychologically healthy educational environments for [all] children" (Huebner, Gilman, Reschly, & Hall, 2009, p. 565).

The Social Emotional Health Survey-Secondary (SEHS-S) was developed with the goal of developing an efficient and thoroughly validated measure that can be used by educators to assess and monitor students' positive development.

Covitality: Sum Greater than its Parts

As we studied these related perspectives of youth development, we wondered if there might be some benefit to think about youth psychological strengths as being linked to some higher-order trait, as is the case for many of the cognitive developmental theories that provide the conceptual

underpinnings of the tests that school psychologists and educators use. For example, the general intelligence factor (*g*) is a higher-order factor hypothesized to represent a mental energy central to all intelligent problem solving (Carroll, 1993). Could there also be a “*g*” factor for psychological strengths? It also occurred to us that there was no readily available term with which to describe the combination of student psychological strengths, as there is when emotional and behavioral disorders are considered. Taking a counter approach to comorbidity, the co-occurrence of multiple disordered states, we were interested in the co-occurrence of multiple positive psychological traits. The term, “covitality” refers to the co-occurrence of positive, healthy traits (Weiss & Luciano, 2015) and encompasses the “synergistic effects of positive mental health resulting from the interplay among multiple positive-psychological building blocks” (Furlong, You, Renshaw, Smith, & O’Malley 2013, p. 3). We have proposed that it is not only important to develop siloed psychological dispositions (e.g., persistence, optimism, empathy), but that there are added benefits to a balanced approach that fosters the development of as many positive traits as possible. As our research has subsequently suggested, the combination of strengths matter more than the individual strengths (Lenzi, Dougherty, Furlong, Dowdy, & Sharkey, 2015; Lenzi, Furlong et al., 2015; Lenzi, Sharkey, Wroblewski, Furlong, & Santinello, 2019).

Strengths Focused Assessment

Recognizing the importance of internal assets for development, strength-based assessments complement and extend traditional assessment approaches that focus on identifying students’ problems and deficits (Nickerson, 2007). Strength-based assessments are used to obtain a comprehensive understanding of students’ functioning and, importantly, provide actionable information that supports ALL students’ positive development. In contrast, deficit measures are designed to identify the 15-20% of students with significant problems. Drawing from this strengths-based perspective, we developed the Social Emotional Health Survey-Secondary (SEHS-S) as a broad measure of covitality, assessing multiple positive psychological constructs hypothesized and empirically supported as contributing to youths’ complete mental wellness.

Conceptual Foundations

The SEHS-S wellness model includes core social and emotional skills and psychological dispositions. The premise is that thriving wellness is grounded, in part, in the conditions of a youth’s life that foster the development of internal psychological dispositions associated with (a) positive beliefs or confidence in self, (b) a sense of trust in others, (c) a sense of emotional competence, and (d) feeling engaged in daily living. These internal assets exert their primary effect by fostering an upward spiral in the quality of youths’ interpersonal transactions. For example, a youth who is developing a sense of gratitude for others, optimism for the future, and expressing trust for others are positive contributors to their own development because these dispositions increase the likelihood that others in the interpersonal transaction zone (mothers, fathers, siblings, teachers, etc.) will engage the youth in development-enhancing interactions. Furthermore, the SEHS-S model proposes that

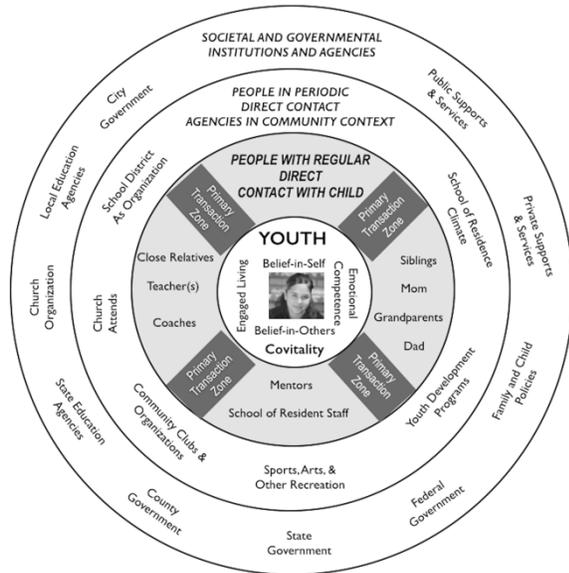


Figure 1. Primary Developmental Transaction Zone

optimal development is realized when more of these core dispositions are nurtured. However, the rationale for fostering these dispositions lies in the fact that their primary effects emerge via the day-to-day transactions a youth has with the adults, family, and peers in their immediate social ecosystems, as depicted in Figure 1. By developing these positive psychological dispositions in schools, educators foster a youth’s ability to meaningfully engage in the interpersonal transactions that facilitate near- and long-term development across bio-psycho-social developmental domains. Our basic premise is that the odds of children realizing positive developmental outcomes are increased when they have the internal dispositions and skill sets to proactively influence the quality of their daily interpersonal interactions. This conceptualization draws upon the positive youth developmental perspective by emphasizing the importance of creating conditions that empower

youth to make things happen in their lives rather than passively letting them happen.

Social Emotional Health Survey–Secondary (SEHS–S)

What Does the SEHS–S Measure?

The SEHS-S has 12 subscales that represent unique positive social emotional health constructs associated with four general positive social emotional health domains (see Figure 2). The first domain, *belief-in-self*, consists of three subscales grounded in constructs from the Social Emotional Learning (SEL) and self-determination theory literatures: self-efficacy, self-awareness, and persistence (e.g., Bandura, Barbaranelli, Capara, & Pastorelli, 1996; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Shechtman, DeBarger, Dornsife, Rosier, & Yarnall, 2013). The second domain, *belief-in-others*, is comprised of three subscales derived from constructs found in the childhood resilience literature: school support, peer support, and family support (e.g., Larson, 2000; Masten, Cutuli, Herbers, & Reed, 2009). The third domain, *emotional competence*, consists of three subscales also based on constructs drawn from the SEL

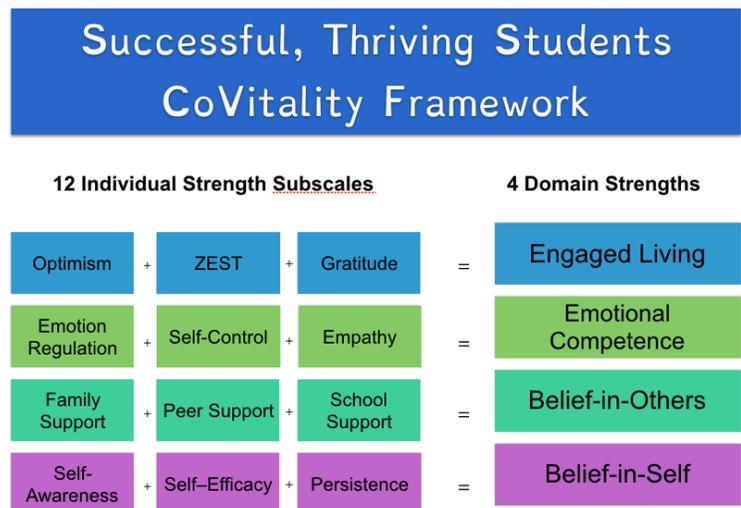


Figure 2. Social Emotional Health Survey Conceptual and Measurement Model.

scholarship: emotional regulation, empathy, and behavioral self-control (e.g., Greenberg et al., 2003; Zins, Bloodworth, Weissberg, & Walberg, 2007). *Engaged living*, the final domain, is comprised of three subscales grounded in constructs derived from the positive youth psychology literature: gratitude, zest, and optimism (e.g., Furlong, Gilman, & Huebner, 2014; Kirschman, Johnson, Bender, & Roberts, 2009). Renshaw et al. (2014) provide a detailed review of each of these scales and their associated constructs, and a description of the conceptual rationale underlying the SEHS, including a discussion of the empirical merit of each of the 12 positive psychological dispositions.

Previous Development and Validation

Table 3 provides a summary of key studies examining the psychometric properties of the first version 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).

Other studies have explored the use of the original or translated versions of the SEHS-S in schools (Boman, Mergler, & Pennell; 2017; Carnazzo, Dowdy, Furlong, & Quirk, 2019; Dougherty & Sharkey, 2017; Chan, Yang, Furlong, Dowdy, & Xie, 2019; Wroblewski, Dowdy, Sharkey, & Kim, 2019).

Table 1. Summary of Key Social Emotional Health Survey Psychometric Studies

Study	Grade	Gender	Sample	Reliability ^a	Validity ^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	Structural: Acceptable fit second-order model, invariance gender Concurrent ^c : SWB (.89), Academic (.08), School safety (.12)
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	Structural: Acceptable fit second-order model, invariance gender and age. Concurrent: BESS (-.63)
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	Structural: n/a Concurrent: SWB (.57)
You et al. (2015)	9-12	51% F 49% M	USA Latin Amer. White Amer.	51% 17%	Belief in Self Belief in Others Emotion Comp.	n/a n/a n/a	Structural: Acceptable fit second-order model, invariance gender and race/ethnicity

N=14,171			African Amer. Asian Amer.	7% 8%	Engaged Living Covitality	n/a .95	
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	Structural: 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	Structural: Acceptable fit second-order model, invariance gender Concurrent: 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	Structural: Latent mean differences on belief-in-self domain (ES = .16) Concurrent: 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	Structural: Acceptable fit second-order model, invariance gender and grade Concurrent: LS (.46), PANAS-P (.46), DASS-D (-.36), DASS-A (-.25), DASS-S (-.22)
N=3,750							

^a All reliabilities are alpha coefficients unless otherwise indicated.

^b All validity coefficients are Pearson correlation coefficients or structural equation model path coefficients.

^c 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.

Enhancements and Modifications

Institute of Education Sciences Grant

Although the preliminary version of the SEHS-S has been extensively researched and validated, as with any measure, there was a need to continue to refine its content and to carefully build evidence supporting its validity. One pressing need was to develop standardization information for a large sample of secondary school students. With this objective in mind, the Institute of Educational Sciences funded a four-year (2016-2020) grant to enhance and further validate the SEHS-S. The grant project aimed the enhance the validity and practical utility of the SEHS-S through several aims: (a) refining the measure for use in schools, (b) verifying the construct validity, (c) investigating the criterion validity, (d) examining the consistency and stability of responses, (e) investigating strategies for evaluating the credibility of responses, and (f) analyzing responses for the presence of empirically-defined profiles or classes. This manual reports on the results of this IES Goal 5 grant measurement enhancement project.

Three samples were included in the project study. First, cross-sectional data were collected from 296 high schools across California (Grades 9-12, $N = 119,476$). Second, longitudinal data were collected from four high schools in California across three years (Grades 9-12; $N = 600$). Third, short-term stability data were collected from a subset of the longitudinal sample in Year 3 ($N = 159$). The results of this grant research project provide validity and usability information about how the SEHS-S assesses social emotional health, and how its constructs relate to factors that influence learning (e.g., personal distress, school satisfaction, school connectedness, student learning strategies, subjective well-being). The longitudinal data set will be used to examine relations between the SEHS-S and educational outcomes (e.g., test scores, grades, attendance, credits earned, disciplinary referrals, appearing in a following report). Primary data analytic methods include exploratory and confirmatory factor analyses, measurement invariance analysis, internal consistency, correlational reliability and validity analyses, analysis of variance, latent profile analysis, and latent transition analysis.

Modifications

All SEHS-S items were standardized to a four-point response scale (1 = *not at all true*, 2 = *a little true*, 3 = *pretty much true*, and 4 = *very much true*). Prior to the standardization, three items measuring zest and three items measuring gratitude utilized a five-point response scale. With the change from the five-point to the four-point scale, minimal word changes occurred across these items.

Validation Measures

The measures described in the following section were used as criterion validity indicators in the analyses presented later in this manual.

Social Emotional Distress Scale—Secondary (SEDS-S)

The SEDS-S is a 10-item behavioral screening questionnaire designed to measure internal emotional distress. Students' past month symptoms of distress are measured using a four-point response scale (1 = *not at all true*, 2 = *a little true*, 3 = *pretty much true*, 4 = *very much true*). To establish substantive validity, clinical literature and existing longer distress measures (e.g., SDQ, BESS, DASS-21) were examined to inform the development of items. A primary aim was to have a measure that asked students to comment on their internal psychological experiences as they relate to sad (e.g., In the past month, I felt sad and down) and anxious (e.g., In the past month, I was scared for no good reason) emotional experiences and that would produce a unidimensional measure. Confirmatory factor analyses support the use of this measure as a unidimensional index of a student's overall level of emotional distress that is used to prioritize the planning of follow-up assessment and support services (Dowdy, Furlong, Nylund-Gibson, Moore, & Moffa, 2018). We specifically sought fewer items than existing pathology-focused screening measures, and with language appropriate for adolescent youths (see Appendix for items).

School Connectedness Scale (SCS)

The SCS is a five-item scale designed to measure students' (Grades 7-12) sense of belonging and engagement at school. Students are asked to respond to the following items:

1. I feel close to people at this school;

2. I am happy to be at this school;
3. I feel like I am a part of this school;
4. The teachers at this school treat students fairly; and
5. I feel safe in my school.

The response scale provided is 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither disagree nor agree*, 4 = *agree*, 5 = *strongly agree*. Mean scores are created based on students' responses across all five items, with higher scores indicating higher school connectedness. Furlong et al. (2011) found that the SCS has high reliability ($\alpha = .82-.87$) and a unidimensional structure across multiple ethnicities. Other studies report acceptable or high alpha levels (.70, Joyce & Early, 2014; $\alpha = .80$, Lester, Waters, & Cross, 2013; .76, Santos & Collins, 2016; .80, Waters & Cross, 2010; $\alpha = .87$, Wormington, Anderson, Schneider, Tomlinson, & Brown, 2014; $\alpha = .92$, Wormington et al., 2014) and unidimensionality (Lesters et al., 2013; Waters & Cross, 2010; Wormington et al., 2014).

Mental Health Continuum Short Form

The *Mental Health Continuum-Short Form* (MHC-SF; Keyes, 2005) is a 14-item measure of emotional (i.e., life satisfaction, positive affect, negative affect), psychological (i.e., autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance), and social well-being (i.e., social integration, social acceptance, social contribution, social actualization, and social coherence). Individuals are asked the frequency with which they experienced each well-being "symptom" during the past month. Item response options include *never, once or twice, about once a week, 2 or 3 times a week, almost every day, and every day*. Based on item responses, individuals are classified as experiencing *flourishing mental health, languishing mental health* or *moderate mental health*. The three-factor structure and convergent validity of the MHC-SF were assessed among a U.S. nationally representative sample of youth ($n = 1,284$), ages 12 to 18, as part of the Child Development Supplement (CDS) of the Panel Study of Income Dynamics (PSID; Keyes, 2006a) with results supporting a three-factor model: *Emotional Well-Being, Psychological Well-Being, and Social Well-Being*, with correlations between factors moderately strong, $r = .57-.71$. Online access: <https://www.aacu.org/sites/default/files/MHC-SFEnglish.pdf>

Brief Multidimensional Student's Life Satisfaction Scale

The *Brief Multidimensional Student's Life Satisfaction Scale* (BMSLSS; Huebner, Drane, & Valois, 2000; Seligson, Huebner, & Valois, 2003) is a five-item measure that provides a general index of student life satisfaction across five life domains (friends, family, self, school, and living environment) for students within the ages of 8-18. A five-point scale developed by Bickman and colleagues (2007) is commonly used (1 = *very dissatisfied* to 5 = *very satisfied*). General life satisfaction is calculated by summing the five individual domains (Huebner, Seligson, Valois, & Suldo, 2006). The five-item version has acceptable internal consistency when used with high school students ($\alpha = .75$, Funk, Huebner, Valois, 2006; $\alpha = .83$, Ng, Huebner, Maydeu-Olivares, & Hills, 2017; $\alpha = .81$, Zullig, Valois, Huebner, Oeltmann, & Drane, 2001). A two-week stability reliability coefficient was acceptable for high school students, $r = .91$ (Funk, Huebner, & Valois, 2006).

California Healthy Kids Survey (CHKS) Core Module

Students also completed the CHKS core module, which is a confidential survey of school climate and safety, student wellness, and youth resiliency. The module is administered schoolwide to students and provides insight about health risks and behaviors, school connectedness, school climate, protective factors, and school violence experiences. Students in Grades 9-12 completed the high school form and students in Grades 7-8 completed the nearly-identical middle school form. The CHKS module is part of a comprehensive data-driven decision-making process on improving school climate and student learning environment for overall school improvements (see <https://calschls.org>).

CHKS Items Used in Validity Analyses

Seven CHKS Core module self-reported items were used to evaluate the association between selected behavior indicators and SEHS-S responses. A finding that students with higher overall SEHS-S responses also reported higher school grades and lower risk behavior engagement would provide additional validation evidence. The following items were used in these validation analyses.

1. **Self-reported grades:** During the past 12 months, how would you describe the grades you mostly received in school? (1 = mostly A's, 2 = A's and B's, 3 = Mostly B's, 4 = B's and C's, 5 = Mostly C's, 6 = C's and D's, 7 = Mostly D's, and 8 = Mostly F's).
2. **Cigarette use in the last 30 days (yes = any use in past 30 days):** *During the past 30 days, on how many days did you use... cigarettes?* (0 days, 1 day, 2 days, 3-9 days, 10-19 days, 20-30 days)
3. **Vaping in the last 30 days (yes = any use in past 30 days):** *During the past 30 days, on how many days did you use... electronic cigarettes, e-cigarettes, or other vaping device such as juul, e-hookah, hookah pens, or vape pens?* (0 days, 1 day, 2 days, 3-9 days, 10-19 days, 20-30 days).
4. **Binge drinking (yes = any use in past 30 days):** *During the past 30 days, on how many days did you use... five or more drinks of alcohol in a row, that is, within a couple of hours?* (0 days, 1 day, 2 days, 3-9 days, 10-19 days, 20-30 days).
5. **Marijuana use in the last 30 days (yes = any use in past 30 days):** *During the past 30 days, on how many days did you use... marijuana (smoke, vape, eat, or drink)?* (0 days, 1 day, 2 days, 3-9 days, 10-19 days, 20-30 days).
6. **Suicidal ideation in the last 12 months:** During the past 12 months, did you ever seriously consider attempting suicide? No Yes
7. **Sadness experiences:** During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more that you stopped doing some usual activities? No Yes

CHKS Survey Presentation Format

As a part of the IES grant, the SEHS-S was administered with the California Healthy Kids Survey (CHKS) between September 2018 and May 2019. The survey included the CHKS Core Module, the SEHS-S, SEDS, and the SCS. A random subset of students completed an additional module that included the Mental Health Continuum-Short Form (14 items), the Brief Multidimensional Life

Satisfaction Scale (5 items), and a single general life satisfaction item (rated on a 1-100 scale anchored by 1 = not satisfied and 100 = completely satisfied).

CHKS Survey Administration Procedures

Prior to administration of the CHKS, an introductory letter was sent to parents along with an active or passive consent form, depending on the school's consent procedures. Three weeks prior to the scheduled survey administration, consent forms were tracked for return and responses were recorded. The survey was then administered in the following weeks. The 2018-2019 CHKS Survey Administration Guide is available online (<https://calschls.org/survey-administration/instructions/>).

Parent Consent

Under passive consent procedures, a form was sent home notifying parents about the survey. Parents/guardians were asked to return the form only if they did not wish for their student to participate. Under active consent procedures, a form was sent home with a request for caregivers to respond *yes* or *no* to their students completing the survey.

Student Assent

Students were asked for their assent prior to completing the survey. Students who did not wish to complete the survey were able to freely decline without any consequences.

Survey Instructions

The following instruction are used when the CHKS is presented to students.

This survey asks about your behavior, experiences, and attitudes related to your school, health, and well-being. It includes questions about use of alcohol, tobacco, and other drugs, and about bullying and violence. You do not have to answer these questions, but your answers will be very helpful in improving school and health programs. You will be able to answer whether or not you have done or experienced any of these things. Please do not write your name on this form or the answer sheet. Do not identify yourself in any other way. Mark only one answer unless told to "mark all that apply." This survey asks about things you may have done during different periods of time, such as during your lifetime (you ever did something), or the past 12 months, or 30 days. Each provides different information. Please pay careful attention to these time periods. Thank you for taking this survey!

California Student Wellness Study Sample

The survey administration was managed by WestEd and followed consent and administration procedures that have been refined since the late 1990s. The survey was administered as part of the California State Department of Education's effort to support the periodic collection of information that local education agencies could use to monitor school quality indicators. California students who completed the CHKS Core, SEHS-S, and SEDS items between September 2017 and May 2019 were considered for inclusion in the project sample. The responses of 123,508 students in Grades 7-12

from 296 schools were identified. The following prespecified characteristics were used for inclusion in the project's final dataset:

1. Completing the English language version of survey (Spanish language responses will be examined in a following report).
2. Completing of a minimum of 30 (of the 36) SEHS-S items.
3. Passing the CHKS response quality check. (The CHKS includes a case reject criteria removes students with suspicious responses behaviors: inconsistent or outlandish/ impossible responses.)
4. Taking more than 10 minutes to complete the survey (students who took the survey in under 10 minutes were not included in order to remove low effort responders).
5. Answering items honestly. The CHKS includes this item as a response quality check: How many questions in this survey did you answer honestly? (*all of them, most of them, only some of them, hardly any*). Students who reported answering "hardly any" items honestly were not included in the project cross-sectional sample.

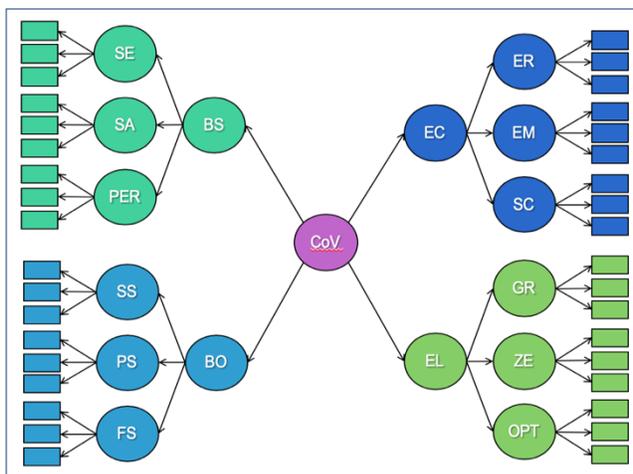
The final useable sample available for the analyses was 119,476 (3.3% of all cases were removed after applying the aforementioned inclusion criteria). The characteristics of this cross-sectional sample are shown in Appendix Table 2. The SEHS-S, SEDS, and SCS mean item responses and standard deviations are presented in Appendix Table 3.

SEHS-S Construct Validity

Evaluation of the construct validity of the SEHS was completed by examining the fit between its derived factors and its higher-order hypothesized constructs. Random subsamples without replacement were drawn for the validity analyses presented in the following section.

Measurement Models

To evaluate the validity of the SEHS-S we compared four models: (a) full model, (b) published model (reported on previous SEHS-S validation studies), (c) four-factor correlated, and (d) full four-factor correlated, which are described in the following section.



the following section.

The **full model 1** (see Figure 3) is the best representation of the Covitality conceptual model. In this higher-order model, Covitality is the over-arching construct and the higher-order factor. It is represented by four second-order factors (Belief in Self, Belief in Others, Emotional Competence, and Engaged Living), each with three lower-factors (for a total of 12 lower-order factors). Each of the 12 lower-order factors is represented by three items (for a total

Figure 3. Model 1 – Full four-factor model.

of 36 items; see *Figure 3*, Full model).

The **published model 2** (see *Figure 4*, used in previous SEHS-S published studies) uses aggregates of each of the 12 lower-order factors as indicators of their respective second-order factor in place of the individual items. Thus, there is one overall factor (Covitality) with four subfactors, each represented by three mean aggregates instead of 36 items. This model has been used in publications that examined the previous, preliminary version of the SEHS-S (see *Figure 1*, Published model).

The **four-factor correlated model 3** (see *Figure 5*) is the same as the published model but without an overall Covitality factor. Instead, the four factors are allowed to correlate directly with each other. (See *Figure 5*. Four-factor correlated model).

The **full four-factor correlated model 4** (see *Figure 6*) is the same as the full model but without

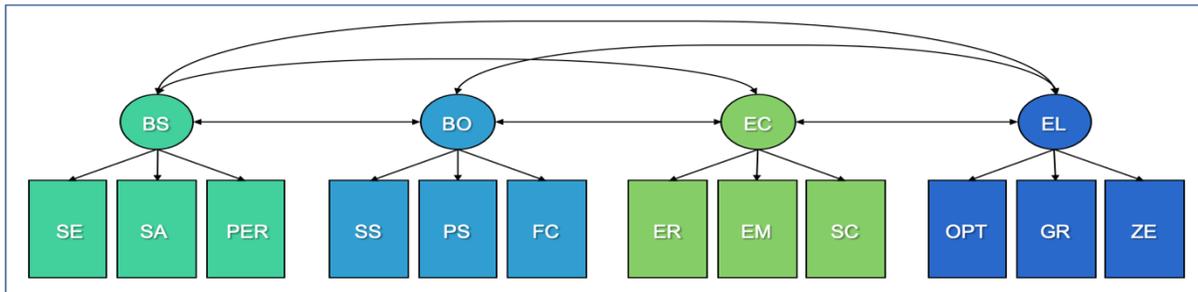


Figure 4. Model 2 – Published model.

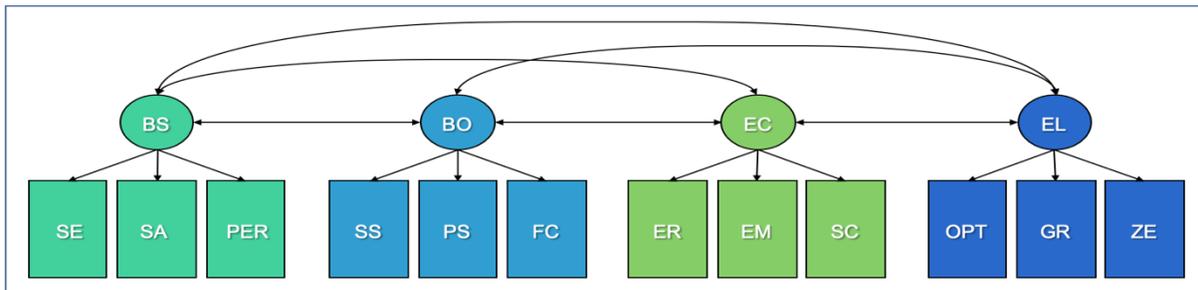


Figure 5. Model 3 – Four-factor correlated model.

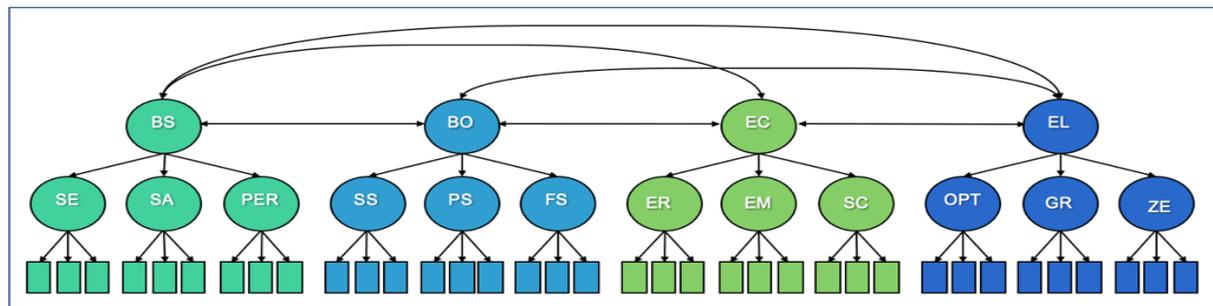


Figure 6. Model 4 – Full four-factor correlated model. SE = Self efficacy, SA = Self-Acceptance, PER = Persistence, SS = Social Support, PS = Peer Support, FC = Family Cohesion, ER = Emotion Regulation, EM = Empathy, SC = Self-Control, OPT = Optimism, GR = Gratitude, ZE = Zest, BS = Belief in Self, BO = Belief in Others, EC = Emotional Competence, EL = Engaged Living, and COVI = Covitality.

an overall Covitality factor. Instead, the four factors are allowed to correlate directly with each other. (See *Figure 6*, full four-factor correlated model).

Measurement Invariance

To evaluate validity evidence supporting the use of the SEHS-S with a diverse student population, we set to test if the items on the SEHS-S function the same for a wide range of students, which we tested through measurement invariance (MI). The goal with MI is to establish if the items measure the intended factors similarly across subgroups of a population. Achieving measurement invariance across subgroups provides evidence that the items are measuring the construct the same across different subgroups. Specifically, MI evaluates whether the groups have substantially similar factor structure, loadings, intercepts, and latent variance/covariance. Conducting MI requires comparison of several models, ranging from less to more restricted models. The collected evidence of MI indicates if the measurement and structural invariance are sufficient similarity across groups. This means that there is evidence that respondents from different groups interpret the measure in a conceptually similar way.

We drew a random sample of 10,000 students from the full dataset to compare the model fit of previously hypothesized structures (see Table 4 below). The AIC, BIC, χ^2 , and SRMR indicated that the four-factor correlated model fit the data best. The CFI and the RMSEA indicated that the full four-factor correlated model fit the data best. This is not surprising since, for example, the BIC favors parsimonious models while the RMSEA prefers models with more variables. Ultimately, model fit was good for all hypothesized factor structures, which allows us to rely on theory to identify the best model. Since the full model is the best representation of theory and the model fit is good, we use the full model.

To confirm that the model fit replicated for the Full Model, we drew a new sample of 10,000 cases (without replacement). Next, we saved the model parameters from the Full Model in the first sample, and re-ran the model using those fixed parameters on the new sample. The model fit was similar and good, providing evidence that the same model can successfully replicate on a different sample of data (see Table 2).

Table 2. Model Fit Replication of the Full SEHS-S Hypothesized Model.

Model	AIC	BIC	χ^2	df	$\Delta \chi^2$	Δdf	<i>p</i> -value	CFI	RMSEA [90% CI]	SRMR
Calibration	746386.69	747280.77	11156.85	578				.956	.043 [.042, .043]	.045
Validation	747439.56	747439.56	11415.04	702	258.193	124	<i>p</i> < .001	.955	.039 [.038, .040]	.046

Table 3. Model Fit of the Four Hypothesized SEHS-S Models.

Model	AIC	BIC	χ^2	df	CFI	RMSEA [90% CI]	SRMR
Full Model (1)	746386.69	747280.770	11156.84	578	.956	.043 [.042, .043]	.045
Published Model (2)	241668.87	241957.279	3547.31	50	.938	.084 [.081, .086]	.039
Four-Factor Correlated (3)	241334.79	241637.629	3209.24	48	.944	.081 [.079, .084]	.036
Full Four-Factor Correlated (4)	746017.62	746926.120	10783.78	576	.958	.042 [.041, .043]	.044

Subgroup Construct Validity

To perform these analyses, we took new random samples from the remaining unsampled data (in other words, we continued to sample without replacement). Each subgroup used in invariance testing had a sample size of 2,500.

Invariance by Gender

To consider if male and female students interpreted the SEHS-S similarly, we evaluated two models (one for male students and one for female students) and then iteratively restricted the models to be equal. Each group had 2,500 students for a total n of 5,000. In doing this, we determined if male and female students interpreted the items similarly (a process known as measurement invariance). The results indicated that all three levels of the model were invariant across gender (all Δ CFI were less than .01, see Table 4).

Table 4. Invariance across Gender.

Model	χ^2	df	p-value	$\Delta \chi^2$	Δ df	p-value	RMSEA	90% CI	CFI	SRMR	Δ CFI
CFA: Male	3228.03	578	<.001				.043	[.041, .044]	.956	.044	—
CFA: Female	3145.18	578	<.001				.042	[.041, .044]	.957	.043	—
Configural Level 1	4849.60	1056	<.001				.038	[.037, .039]	.968	.031	—
Metric Level 1	4910.41	1080	<.001	60.822	24	<.001	.038	[.037, .039]	.968	.032	.000
Scalar Level 1	5178.87	1104	<.001	268.451	24	<.001	.038	[.037, .039]	.866	.033	.002
Configural Level 2	6489.92	1176	<.001				.042	[.042, .044]	.956	.043	—
Metric Level 2	6553.30	1200	<.001	63.388	24	<.001	.042	[.042, .043]	.956	.044	.000
Scalar Level 2	7094.06	1208	<.001	540.758	8	<.001	.044	[.043, .045]	.951	.047	.005
Configural Level 3	7180.18	1188	<.001				.045	[.044, .046]	.950	.047	—
Metric Level 3	7241.43	1212	<.001	61.251	24	<.001	.045	[.044, .046]	.950	.048	.000
Scalar Level 3	7386.48	1215	<.001	145.049	3	<.001	.045	[.044, .046]	.949	.050	.001

Note. Level 1 refers to invariance for lower-order factors, Level 2 refers to the second-order factors, and Level 3 refers to the higher-order factor.

Table 5. Invariance Analysis for Grade Level.

Model	χ^2	Ω	p-value	$\Delta \chi^2$	Δ df	p-value	RMSEA	90% CI	CFI	SRMR	Δ CFI
CFA: 7th and 8th	3003.37	578	<.001				.041	[.040, .042]	.960	.042	—
CFA: 9th and 10th	3212.05	578	<.001				.043	[.041, .044]	.957	.043	—
CFA: 11th and 12th	3270.21	578	<.001				.043	[.042, .045]	.957	.044	—
Configural Level 1	7036.25	1584	<.001				.037	[.036, .038]	.970	.030	—
Metric Level 1	7153.85	1632	<.001	117.59	48	<.001	.037	[.036, .038]	.970	.031	.000
Scalar Level 1	7621.97	1680	<.001	468.12	48	<.001	.038	[.037, .038]	.968	.032	.002
Configural Level 2	9763.30	1776	<.001				.042	[.042, .043]	.957	.043	—
Metric Level 2	9878.99	1824	<.001	115.69	48	<.001	.042	[.041, .043]	.956	.044	.001
Scalar Level 2	10090.92	1840	<.001	211.94	16	<.001	.042	[.042, .043]	.955	.044	.001
Configural Level 3	10166.09	1798	<.001				.042	[.042, .044]	.955	.044	—
Metric Level 3	10287.25	1846	<.001	121.16	48	<.001	.043	[.042, .044]	.954	.045	.001
Scalar Level 3	10543.20	1852	<.001	255.95	6	<.001	.043	[.043, .044]	.953	.046	.001

Note. Level 1 refers to invariance for lower-order factors, Level 2 refers to the second-order factors, and Level 3 refers to the higher-order factor.

Invariance by Grade Level

The students who participated in this study were in Grades 7-12. We combined the students into meaningful categories: Grade 7-8 (middle school), Grade 9-10 (early high school), and Grade 11-12 (late high school), and then compared model fit, factor loadings, item intercepts, and factor means across each grade to determine if the measurement invariance held. Because this is a three-level higher order model, measurement invariance was compared at each level. The results indicated that all three levels of the model were invariant across grade (all ΔCFI were less than .01, see Table 5).

Table 6. Invariance Across Latinx Status.

Model	χ^2	df	p-value	$\Delta \chi^2$	Δdf	p-value	RMSEA	90% CI	CFI	SRMR	ΔCFI
CFA: Not Latinx	3462.43	578	<.001				.045	[.043, .046]	.953	.046	—
CFA: Latinx	3177.32	578	<.001				.042	[.041, .044]	.958	.041	—
Configural Level 1	5131.52	1056	<.001				.039	[.038, .040]	.967	.032	—
Metric Level 1	5183.92	1080	<.001	52.40	24	<.001	.039	[.038, .040]	.967	.032	.000
Scalar Level 1	5331.10	1104	<.001	147.18	24	<.001	.039	[.038, .040]	.966	.032	.001
Configural Level 2	6649.40	1176	<.001				.043	[.042, .044]	.956	.043	—
Metric Level 2	6701.69	1200	<.001	52.30	24	<.001	.043	[.042, .044]	.956	.043	.000
Scalar Level 2	6791.10	1208	<.001	89.41	8	<.001	.043	[.042, .044]	.955	.044	.001
Configural Level 3	6873.66	1188	<.001				.044	[.043, .045]	.954	.044	—
Metric Level 3	6927.41	1212	<.001	53.75	24	<.001	.043	[.042, .044]	.954	.044	.000
Scalar Level 3	7013.43	1215	<.001	86.02	3	<.001	.044	[.043, .045]	.953	.045	.001

Note. Level 1 refers to invariance for lower-order factors, Level 2 refers to the second-order factors, and Level 3 refers to the higher-order factor.

Table 7. Invariance Across Ethnic Group Identification.

Model	χ^2	df	p-value	$\Delta \chi^2$	Δdf	p-value	RMSEA	90% CI	CFI	SRMR	ΔCFI
American Indian	3273.53	578	<.001				.043	[.042, .045]	.956	.043	—
Asian	3472.28	578	<.001				.045	[.043, .046]	.952	.049	—
African American	3052.52	578	<.001				.041	[.040, .043]	.961	.040	—
Pacific Islander	2635.18	578	<.001				.045	[.044, .047]	.948	.045	—
White	3205.84	578	<.001				.044	[.041, .044]	.957	.046	—
Configural Level 1	11599.92	2640	<.001				.038	[.037, .039]	.969	.030	—
Metric Level 1	11761.75	2736	<.001	161.82	96	<.001	.037	[.037, .038]	.968	.032	.001
Scalar Level 1	12683.34	2832	<.001	921.59	96	<.001	.038	[.038, .039]	.966	.034	.002
Configural Level 2	16180.52	2976	<.001				.043	[.043, .044]	.954	.045	—
Metric Level 2	16322.99	3072	<.001	142.47	96	<.001	.043	[.042, .043]	.954	.045	.000
Scalar Level 2	16683.87	3104	<.001	360.88	32	<.001	.043	[.043, .044]	.952	.046	.002
Configural Level 3	16926.96	3018	<.001				.044	[.044, .045]	.951	.046	—
Metric Level 3	17084.91	3114	<.001	157.95	96	<.001	.044	[.043, .044]	.951	.047	.000
Scalar Level 3	17495.59	3126	<.001	410.68	12	<.001	.044	[.044, .045]	.950	.049	.001

Note. Level 1 invariance for lower-order factors, Level 2 second-order factors, and Level 3 higher-order factor.

Invariance by Ethnic Identification

California is a “majority minority” state, which means that most students in the state identify as being part of a non-White ethnic group. More specifically, California has a high proportion of

Latinx students. Thus, Latinx membership is a separate question from racial identity on the CHKS. In our overall sample, 48.2% of students identified as a person of Hispanic or Latinx origin. As such, we felt that it was important to determine if the SEHS-S was invariant across Latinx and non-Latinx students. The results of the invariance testing provided evidence that the SEHS-S was invariant across Latinx and non-Latinx students (see Table 6). Invariance testing was also verified across subgroups of race (e.g., American Indian, Asian, African American, Pacific Islander, and White, see Table 7).

Internal Consistency Reliability

To evaluate SEHS-S internal consistency, Cronbach alpha (α) and Omega (Ω) coefficients were computed for the 12 subdomains, four domains, and the overall Covitality (CoV) index. Reliability indices were also computed for the SEDS-S measure. As shown in Table 8, the coefficients for SEHS-S total CoV score ($\alpha = .95$, $\Omega = .95$) and the SEDS-S total distress score ($\alpha = .94$, $\Omega = .93$) provided strong evidence of robust reliability. SEHS-S domain and subdomain coefficients provided evidence of moderate to strong reliability, with the exception of the self-control subdomain.

Table 8. Alpha and Omega reliability coefficients.

Overall	α	Ω	Domains	α	Ω	Subdomains	α	Ω
SEHS-S Covitality (CoV)	.95	.95	Belief in Self	.88	.88	Self-Efficacy	.82	.81
SEDS-S Total Distress	.94	.93	Belief in Others	.87	.87	Persistence	.76	.74
						Self-Awareness	.79	.78
			Emotional Competence	.87	.87	School Support	.86	.85
						Family Support	.91	.91
						Peer Support	.92	.92
						Empathy	.86	.85
						Emotional Regulation	.78	.77
						Self-Control	.67	.64
			Engaged Living	.94	.94	Gratitude	.95	.94
						Zest	.92	.91
						Optimism	.87	.87

Test-Retest Reliability

We examined short-term stability of the SEHS-S instrument using the project's longitudinal dataset. This dataset included the responses of students from four high schools that were not part of the larger cross-sectional survey administered by WestEd. This data set was collected by the Project Covitality researchers using an online survey. The students at these four schools were administered the SEHS-S and other validation measures annually. Their responses were linked to form a longitudinal response sample.

Test-Retest Survey Measures

The test-retest survey administration included the following measures:

- Social Emotional Health Survey-Secondary: 4-point response scale.
- Social Emotional Distress Scale-Secondary: 4-point response format.

- Demographics: gender, grade, sexual orientation, ethnic identification, course grades (self-report over the last 12 months).

Test-Retest Procedure

Three test-retest procedures were conducted via bivariate correlations to examine the SEHS-S' reliability over time.

Test-retest Group 1: The September 2018 (T1) longitudinal sample SEHS-S survey responses were correlated with the January 2019 responses (T2). This was a random sample (N = 200) of students and divided equally among Grades 9-12 (n = 50 from each grade level). Students were asked to report to the computer lab during their first period class and were asked to retake the survey. The UCSB research team proctored survey administration and provided a brief explanation for retaking the survey. A student opt-out option was provided at the beginning of the survey. By observation, the students were cooperative and appropriately engaged. Of the 200 students we sampled for the 4-month test retest analysis, 169 students responded to the survey and 159 agreed to participate and provided usable IDs so as to link T1 and T2 responses.

ID's were matched for all longitudinal data from 2017 and 2018. Two groups were created and were also used to study the test-retest reliabilities: **Test-Retest Group 2:** Grades 8 and 9 students who took the survey in 2017 (N = 521, T1) and also took the survey again the next year when they were in the Grades 9 and 10, respectively (T2). **Test-Retest Group 3:** Grades 10 and 11 students who took the survey in 2017 (N = 422, T1) and also took the survey again the next year when they were in the Grades 11 and 12 (T2). Descriptive information for all test-retest samples is shown in Appendix, Table 4.

Test-Retest Results

The 4-month and 1-year correlations between each SEHS-S domain are presented in Table 9. These data provide support for trait-like (as opposed to state-like) social-emotional traits, which is consistent with the SEHS-S conceptual model. The test-retest findings suggest trait-like as opposed to state-like social-emotional traits, which is consistent with the SEHS-S conceptual model.

Table 9. Four-Month and One-Year Test-Retest Coefficients

Overall	4-mo	Gr.	Gr.	Domains	4-mo	Gr.	Gr.	Sub-Domains	4-mo	Gr.	Gr.
		8-9	10 to 11			8 to 9	10 to 11			9 to 10	11 to 12
		1-yr	1-yr			1-yr	1-yr			1-yr	1-yr
Covitality	.81	.71	.54	Belief in Self	.77	.65	.66	SE	.63	.60	.55
								PER	.72	.60	.62
SEDS Distress	.76	.63	.68	Belief in Others	.76	.64	.63	SA	.68	.53	.56
								SS	.63	.48	.54
				Emotional Competence	.68	.62	.64	FC	.78	.69	.65
			PS					.65	.55	.48	
			EM					.67	.60	.60	
				Engaged Living	.75	.66	.64	ER	.49	.54	.56
			SC					.57	.46	.51	
			GR					.70	.50	.57	
				Engaged Living	.75	.66	.64	ZE	.62	.64	.53
								OPT	.72	.60	.55

Criterion Validity Analyses

To examine criterion validity, we drew a new sample of 5,000 students from the dataset (without replacement). We utilized several measures or items as validity indicators:

- Social Emotional Distress Survey-Secondary (SEDS-S)
- School Connectedness Scale (SCS)
- Self-reported grades
- Cigarette use in the last 30 days (yes/no)
- Vaping in the last 30 days (yes/no)
- Binge drinking (5 or more drinks in one sitting) in the last 30 days (yes/no)
- Marijuana use in the last 30 days (yes/no)
- Seriously considered suicide in the last 12 months (yes/no)

School Belonging, Emotional Distress, and Behavioral Indicators

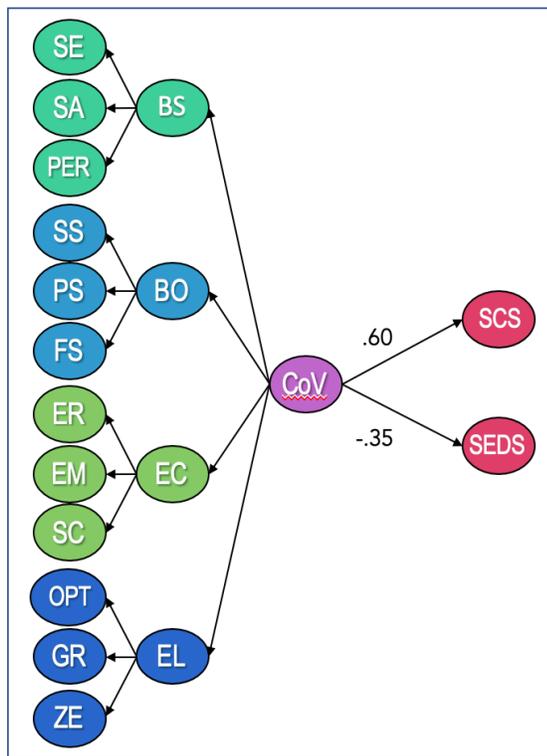


Figure 5. Convergent validity with the other latent constructs. All coefficients are standardized and significant (SCS = school connectedness, SEDS = Social Emotional Distress Scale).

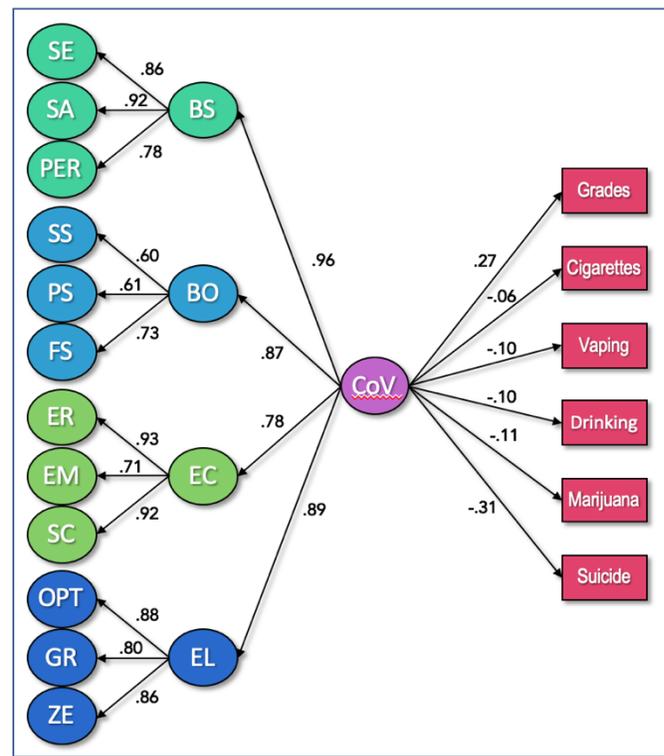


Figure 6. Convergent validity with the CHKS survey behavioral items. All coefficients are standardized and significant.

We utilized structural equation modeling to examine these relations. Covitality was used as the predictor of each outcome above. We expected that covitality would have a positive relation with school connectedness and academic grade, and a negative relation with social emotional distress, cigarette use, vaping, binge drinking, marijuana use, and suicidal ideation. We found that all relations were in the expected directions and were significant (see Figure 5 and 6). A one-standard

deviation increase in covitality was associated with a .59 standard deviation increase in school connectedness and a .30 standard deviation increase in self-reported academic grades. Similarly, a one-standard deviation increase in covitality was associated with a .27 standard deviation decrease in social emotional distress, a .06 standard deviation decrease in cigarette use, a .12 standard deviation decrease in vaping, a .08 standard deviation decrease in binge drinking, a .13 standard deviation decrease in marijuana use, and a .30 decrease in suicidality. The path diagrams are shown in Figures 5 and 6. Both models demonstrated good fit. The first model (covitality as a predictor of the latent variables school connectedness and social emotional distress) displayed good fit indices ($\chi^2 = 13481.497$, $df = 1205$, $p < .000$, RMSEA = .045 with a 90% confidence interval of .044 - .046, CFI = .931, SRMR = .063). Similarly, the second model (covitality as a predictor of academic grades, drug use and suicidality) had excellent fit as well, $\chi^2 = 7630.431$, $df = 788$, $p < .000$, RMSEA = .042, with a 90% confidence interval of .041-.043, CFI = .949, SRMR = .045. Hence, the SEHS-S demonstrates convergent and divergent validity.

Life Satisfaction and Subjective Well-being

To understand how the SEHS-S relates to other measures of mental health, we examined its relation to external measure of mental health. First, we considered three groups of mental health that can be created using the Mental Health Continuum-Short Form (MHC-SF; Keyes, 2005), specifically languishing, moderate, and flourishing mental health groups (for more on this see Keyes, 2005). We also considered the Brief Multidimensional Life Satisfaction (BMLSS; Huebner, Drane, & Valois, 2000; Seligson, Huebner, & Valois, 2003) and a measure of global life satisfaction (LS; Huebner, Drane, & Valois, 2000; Seligson, Huebner, & Valois, 2003).

Comparing the mean SEHS-S across the three groups, results indicated that there were significant differences among them. Specifically, the SEHS-S means for the three MHC-SF groups were: Languishing ($M = 2.33$, $SD = 0.45$), Moderate Mental Health ($M = 2.73$, $SD = 0.38$), and Flourishing ($M = 3.19$, $SD = 0.41$), which differed significantly, $F(2, 11976) = 4018.76$, $p < .0001$, $\eta^2 = .40$. Pairwise group comparisons showed the following mean differences: Flourishing > Moderate > Languishing and Moderate > Languishing. All group means represented large effect sizes.

The mean BMLSS responses of the Languishing MHC-SF ($M = 3.45$, $SD = 1.12$), Moderate MHC-SF ($M = 4.28$, $SD = 0.83$), and Flourishing MHC-SF ($M = 5.07$, $SD = 0.74$) were significantly different, $F(2, 11892) = 3083.50$, $p < .0001$, $\eta^2 = .34$. Pairwise group comparisons showed the following mean differences: Flourishing > Moderate > Languishing. All group means represented large effect sizes.

We examined criterion validity by comparing the SEHS-S total CoV score with two overall subjective wellbeing indicators: (a) the mean of all five BMLSS items ($M = 4.48$, $SD = 1.06$ for all students) and (b) the total score on project-specific single item (1-100) global Life Satisfaction rating ($M = 72.52$, $SD = 30.02$ for all students). The correlations of the total CoV score were significant (large effect sizes) for BMDLSS ($r = .64$, $p < .0001$) and for global Life Satisfaction ($r = .41$, $p < .0001$). The students' pattern of responses for the BMDLSS and Life Satisfaction items were associated in expected ways with their SEHS-S items responses. This provides additional evidence that the SEHS-S measures aspects of students' personal strengths that are strongly linked with their positive appraisals of global quality of their personal and interpersonal life circumstances.

Uses and Applications

A primary use of the SEHS-S is to conduct universal screening (for Tier 1 services) in a whole school effort to foster students' social, emotional, and academic well-being. While the SEHS-S can be used as a sole screener, we recommend that it is used in conjunction with a screener measuring psychological distress to measure students' complete mental health. Complete mental health encompasses psychological well-being in addition to psychological distress and is a term that embodies the dual-factor model of mental health (Suldo & Shaffer, 2008). In addition to universal screening, the SEHS-S may also be administered to all students anonymously as a method of capturing school climate data. This approach may be useful for schools that are novices to conducting universal screening or for those that may not yet have the proper infrastructure in place for appropriate universal screening. Lastly, the SEHS-S may also be used as a Tier 2 tool to collect individualized student data. These data may be used for comprehensive psychoeducational evaluations or as a progress monitoring tool for counseling services or other relevant interventions. In administering complete mental health universal screening, we suggest the following steps outlined by Moore et al. (2015).

Screening: Identify Key Participants and Plan

For a smooth administration process, it is crucial to establish a screening team prior to implementation. Dowdy and colleagues (2015) recommend that a school psychologist assume a leadership position due to their knowledge of assessment and interventions. Additionally, the screening team should ideally be a multidisciplinary effort with specific roles held by varied members of the school staff (e.g., teachers, administrators, and support staff; Desrochers & Houck, 2013). Once the screening team has been established, the objectives of screening should also be considered. For example, will the screening be used to identify students in need of supports? What supports or interventions will be provided for these students? How will the students and parents/guardians be notified of the screening results? These are important questions to answer prior to the implementation of screening.

Select Additional Screening Instruments

We recommend the use of the Social Emotional Distress Survey – Secondary (SEDS-S; Dowdy et al., 2018) to be used in conjunction with the SEHS-S (see the Appendix).

Obtain Consent

Legally and ethically, consent and assent are necessary prior to implementing universal screening. Consult with the local school district to determine district guidelines regarding parent consent and student assent procedures. A sample district parent informed consent statement is provided in the Appendix.

Administer Screening Instruments

Depending on the type of screening and available resources, the screening administration process could take one day or it could take a few weeks. With the use of online survey resources,

surveys can be completed by students in school computer labs, with a schedule of when each grade level or classroom will complete the survey given out to school staff prior to administration. Some schools may have electronic tablets for each student and, thus, students can take the survey in their classrooms at a designated time. During survey administration, it is important that survey proctors read from a pre-determined script to provide information to students about the nature and purposes of the survey to minimize differences in survey procedure (see Appendix for sample survey administration script). Students who do not have consent or who do not provide assent should be provided with a quiet activity to work on while classmates are completing the survey. Proctors should be available to answer questions and should maintain a quiet and confidential setting so that students feel comfortable answering the items honestly. School psychologists can check in with teachers and classrooms to provide support and ensure that survey administration is running smoothly. Additionally, school psychologists should be available to check in with any students who may be triggered by the survey and may need additional support.

Score and Analyze Screening Data

When the SEHS-S has been used in the Covitality project study, summary reports were prepared so that once the online survey was administered, whole school reports were available. An important step in using the SEHS-S for schoolwide screening is to evaluate the expertise and resources available to the school that will support survey administration, report generation, and deeper data analyses. The school should follow a predetermined timeline to ensure that data are being scored and analyzed shortly after survey administration so that students who are identified as at-risk can be followed up with quickly. Scoring procedures can be seen in the Appendix. In addition, a complete administration, scoring, and reporting application resource is available at <http://www.covitalityapp.com>.

Follow-up with Students

Follow-up efforts should occur quickly after the results are obtained. Results should be shared with school psychologists and counselors immediately. School psychologists or counselors should meet with identified students to further discuss their strengths and concerns. Subsequent parental consent may be necessary if more in-depth measures are given to identified students to further assess their levels of psychological functioning. Once the level of functioning has been identified, school psychologists or counselors should provide evidence-based interventions to support students' deficits and promote their strengths. For example, if a student is feeling a low sense of school support, they may be referred to a mentorship program within the school. Progress monitoring should be conducted routinely to ensure that distressing symptoms are alleviated and their well-being is improved. Students who are identified as at-risk but are not experiencing any direct symptoms may be routinely monitored to safeguard their well-being. Schoolwide data may be shared at staff meetings so that the school staff is aware of the overall school climate and can work to improve all students' well-being through schoolwide interventions and practices.

For additional information on universal screening see: (Moore, Mayworm, Stein, Sharkey, & Dowdy, E. (2019); Moore, Widales-Benitez, Carnazzo, Kim, Moffa, & Dowdy (2015); Dowdy, Furlong, Raines, Boverly, Kauffman, Kamphaus...Murdock, J. (2014); Dowdy, Ritchey, & Kamphaus (2010).

Monitoring Student Social Emotional Wellness

Illustration 1: California Local Education Agency Context

Appears in:

Paz, J., Kim, E., Dowdy, E., & Furlong, M. J., Hinton, T., Piqueras, J. M., Rodriguez-Jiménez, T., Marzo, J. C., & Coats, S. (2019, under review). Contemporary assessment of youth comprehensive psychosocial assets: School-based approaches and applications In W. Ruch, A. B. Bakker, L. Tay, & F. Gander (Eds.), *Handbook of positive psychology assessment: Science and practice*. Springer.

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-S 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 SEDS-S, and brief measures of life satisfaction and school belonging. The SEHS-S and the SEDS-S 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-S (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 included 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 were 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 worked 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: California Local Education Agency Context

Appears in:

Griffiths, A-J., Diamond, E., Maupin, Z., Alsip, J., Keller, M., Moffa, K., & Furlong, M. J., (2019, in press). School safety, school climate, and student mental health: Interdependent constructs built upon comprehensive multidisciplinary planning. In B. Doll & S. Suldo (Eds.), *Fostering the emotional well-being of our nation's youth: A school-based approach*.

School District Plans and implements Individual and Schoolwide Climate and Well-being Monitoring and Services

In the 2017-2018 school year, Laguna Beach Unified School District (LBUSD; K-12 school district located in Orange County, California serving approximately 3,000 students across two elementary schools, one middle school, and one comprehensive high school) embarked on a journey to implement social and emotional learning (SEL) programs and services kindergarten (K) through Grade 12 as part of its efforts to enhance school climate and to foster positive student development. Previously administered anonymous school climate surveys, including the California Healthy Kids

Survey (2014, 2016) and Hanover Research's School Climate Survey (2017), identified substantial student-level concerns in the areas of school connectedness, relatively high rates of risk behavior, and comparably high rates of social and emotional distress. In response, the LBUSD expanded the instructional services team with a director of social emotional support to lead districtwide SEL programs and added two new school social workers to provide direct program and student services to the team of seven school counselors and four school psychologists.

During the summer of 2017, under the guidance of the director of social and emotional support, a multidisciplinary SEL advisory group was formed to guide the alignment of districtwide prevention and intervention services with best practice models. After reviewing existing school climate surveys, the stakeholder team concluded that an essential on-going practice was the utilization of universal SEL screening. The three goals for universal SEL screening were to provide actionable data on students who may need immediate support, provide schoolwide and district level climate insights over time, and to inform professional development priorities to support the development of social and emotional health.

The multidisciplinary advisory team evaluated multiple universal screening instruments for potential use as SEL universal screeners and ultimately selected two instruments: (a) Student Risk Screening Scale (SRSS; Drummond, 1994) for kindergarten through Grade 3, and (b) the CoVitality survey (see, www.project-covitality.info), an online self-report consisting of the Social Emotional Health Survey (You, Furlong, Dowdy, Renshaw, Smith, & O'Malley, 2014), Social Emotional Distress Survey (Dowdy, Furlong, Nylund-Gibson, Moore, & Moffa, 2018), and additional measures of school connectedness (Furlong et al., 2011; You et al., 2014) and subjective well-being (Seligson Huebner, & Valois, 2003) administered to students for students in Grades 4-12.

The advisory group concluded that the benefits of using the SRSS were that the instrument provided a reliable, valid, efficient, and cost-effective teacher completed rating of student risk on externalizing and internalizing behavior factors. Additionally, the SRSS was capable of being programmed into the district's student assessment information system to facilitate staff training, survey administration, score reporting, and maintenance of student records over time. The advisory group concluded that the benefits of using the Covitality survey were that the instrument provided a reliable and valid student self-report of a dual-factor model of mental health. This included measuring social-emotional distress from normal to high, and measuring social-emotional strength across four strength constructs (gratitude, zest, optimism, and persistence) on the primary version (Grades 4-5) and 12 factors (self-efficacy, persistence, self-awareness, peer support, school support, family support, empathy, self-control, emotional regulation, gratitude, zest, and optimism) for the secondary version (Grades 6-12). The term Covitality refers to the positive combined influences of youths' social and emotional strengths. In addition to individual student information, the Covitality survey also provided sitewide aggregate climate data on social emotional strength factors to help school leaders and staff focus school-based initiatives and instructional activities to increase students' SEL strengths.

Prior to the first administration in the fall of the 2017-2018 school year, the advisory group planned and communicated to district leaders, parents, and staff to inform stakeholders of the purpose of universal SEL screening, the full survey implementation schedule for the year and the parent notification and opt-in/opt-out process. Additionally, the advisory group provided leadership on training teachers and staff on survey administration and coordinated optimal survey administration windows. Lastly, the advisory group designed and implemented the process for survey scoring,

validation of scores, and the critical process for student follow-up for all students identified in the high-risk categories.

At the student level, students identified in the high-risk categories of the SRSS or Covitality survey were provided direct follow up from a school counselor assigned to each elementary site, or the school social workers assigned to the middle school or high school. The purpose of the direct student contact was to validate the data captured in the universal screening, communicate with parents about notable results, and offer or provide action planning with school-based counseling interventions or external referrals. All direct student contacts were recorded within the district's student information system for on-going progress monitoring.

The aggregate universal SEL screening data provided additional insights for stakeholders. For example, the SRSS findings indicated that students' externalizing behaviors were greatest in kindergarten and lowest in Grade 3, and conversely, students' internalizing behaviors were the lowest in kindergarten and greatest in Grade 3. Through three administration cycles (fall 2017, spring 2018, and fall 2018), both factors of externalizing and internalizing behaviors were trending towards increasing low risk behaviors and reducing moderate and high-risk behaviors.

The Covitality aggregate climate data provided multiple insights across the strength factors through the first three cycles of implementation from fall 2017 to fall 2018. Most notably, students in Grades 4-5 had the greatest strength in the factor of gratitude, with the factors of zest and optimism as two of the lowest strength factors. Similarly, students in Grades 6-12 had greatest strengths in the factors of empathy, emotional regulation, and self-efficacy. The lowest strengths in Grades 6-12 were in the factors of zest and optimism. All data were shared back with staff members in follow up staff meetings following survey administration. The SRSS and Covitality surveys provided staff and site leaders additional evidence of the importance of implementing SEL curriculum with fidelity in kindergarten through 9th grade, and the system or responsive school-based counseling interventions when students are identified as high risk.

There are multiple lessons that LBUSD has learned from embarking on a regular cycle of universal SEL survey administration K-12. First, the fall screening in year two of implementation was moved from mid-November, approximately 60 calendar days past the start of the school year, to mid-October, approximately 45 school days past the start of the regular school year. This shift provided additional opportunities for staff to deliver interventions for students and for teachers to use the screening data in fall parent-teacher conferences and student study team (SST) meetings. Second, the spring administration window was moved from approximately 20 days prior to the end of the regular school year to approximately 70 days prior to the end of the year to provide for more in-depth student follow up and planning for the end of the regular school year. The final lesson learned was the importance of continuous communication about the purpose of universal SEL screening with all stakeholders. In year two of screening, the student participation rates increased on average from 75% of all students K-12 to 85% of students K-12; this shift was largely attributed to positive messaging about the importance of screening to enable immediate supports for students in need.

As the universal SEL screening continues, the LBUSD SEL advisory group will regularly evaluate the impact of prevention and intervention activities on student survey outcomes with the aim to continue to reduce student risk and enhance student social-emotional strengths. Additionally, the universal SEL data will be included as an additional data source as the district refines its student early warning system (EWS) using data from student attendance, discipline, school mobility, and

academic achievement measures using summative and formative assessments. Ultimately, universal SEL screening using the SRSS and Covitality survey instruments have proved to be essential tools to enhance timely, data-informed response services for students and has helped to add richness to the school climate data story.

Appendices

SEHS-S Subdomain Definitions and Research Foundation

Social Emotional Health Survey-Secondary Grades 7-12 Form

Social Emotional Health Survey-Secondary Scoring Form

Social Emotional Health Survey–Secondary Average Item Response (AIR) Profile

Social Emotional Distress Scale Student Report Form

Social Emotional Distress Scale Scoring Form

Social Emotional Distress Scale Average Item Response Profile

Example of Parent Informed Consent Notification

Example Survey Administration Script

Student Wellness Survey Follow-up Checklist

Links to Project Covitality Online Resources

Subdomain Definitions and Research Foundation

Appendix, Table 1. *Definitions and Correlations of Covitality Indicators with Subjective Well-Being and Student/School Achievement*

Covitality Indicator	Definition	Range of r SWB ¹ [95% CI]	References	Range of r Achievement t^2 [95% CI]	References
BELIEF IN SELF					
Self-Awareness	The process of attending to aspects of the self, such as private (covert) and public (overt; Abrams & Brown, 1989)	.24 to .35 [.17, .43]	Ciarrochi et al. (2011) Drake et al. (2008)	~.28 [.23, .33]	Greco et al. (2011)
Persistence	Perseverance and passion for long-term goals, including working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and obstacles (Duckworth et al., 2007)	.09 to .34 [-.03, .42]	Garcia (2011) Garcia et al. (2012)	.24 to .32 [.15, .42]	Duckworth, & Quinn (2009) Martin & Marsh (2006)
Self-Efficacy	A mechanism of personal agency entailing people's beliefs in their capabilities to exercise control over their level of functioning and environmental demands (Bandura et al., 1996)	.09 to .48 [-.03, .51]	Danielsen et al. (2009) Diseth et al. (2012) Fogle et al. (2002) Lightsey et al. (2011) Vecchio et al. (2007) Vieno et al. (2007)	.17 to .44 [.06, .51]	Capara et al. (2011) Zhu et al. (2011) Zuffiano et al. (2013)
BELIEF IN OTHERS					
Peer Support	Processes of social exchange between peers, teachers, or family members that contribute to the development of behavioral patterns, social cognitions, and values (Farmer & Farmer, 1996)	.23 to .61 [.07, .63]	Danielsen et al. (2009) Flaspohler et al. (2009) Oberle et al. (2011) Schwarz et al. (2012) Vera et al. (2008)	.10 to .22 [.01, .33]	Chen (2005) Danielsen et al. (2009) Ozer & Schotland (2011) Rosalind (2010)
Teacher Support		.32 to .54 [.29, .61]	Danielsen et al. (2009) Ferguson et al. (2010) Flaspohler et al. (2009) Stewart, & Suldo (2011)	.15 to .33 [.05, .43]	Chen (2005) Danielsen et al. (2009) Rosalind (2010) Stewart & Suldo (2011)
Family Support		.32 to .67 [.29, .72]	Danielsen et al. (2009) Ferguson et al. (2010) Oberle et al. (2011) Schwarz et al. (2012) Stewart, & Suldo (2011) Vieno et al. (2007)	.23 to .27 [.13, .33]	Chen(2005) Danielsen et al. (2009) Rosalind (2010)

Appendix, Table 1. *Definitions and Correlations of Covitality Indicators with Subjective Well-Being and Student/School Achievement (continued)*

Covitality Indicator	Definition	Range of r SWB ¹ [95% CI]	References	Range of r Achievement ² [95% CI]	References
EMOTIONAL COMPETENCE					
Empathy	The affective and cognitive skills for noticing and taking into account the emotional states of others (Garaigordobil, 2004)	~.27 [.08, .44]	Oberle et al. (2010)	Limited available research	
Emotional Regulation	The ability to express one's positive emotions (e.g., liking of others, joy) and monitor one's negative emotions (e.g., refrain from overreacting to situations eliciting anger, frustration, embarrassment, etc.; Fry et al., 2012)	-.19 to -.28 [-.10, -.38]	Haga et al. (2009) Saxena et al. (2011)	.25 to .28 [.19, .45]	Gail & Arsenio (2002) Vidal et al. (2012) Vukman, & Licardo (2010)
Self-Control	A competence which begins to develop in infancy and empowers people to gain access to the self and alternative behavioral options even in stressful situations by using effective affect-regulation (Hofer et al., 2011)	.36 to .48 [.27, .55]	Fry et al. (2012) Hofer et al. (2011)	.25 to .42 [.11, .48]	Bertrams (2012) Kuhnle et al. (2012) Vidal et al. (2012)
ENGAGED LIVING					
Gratitude	A sense of thankfulness that arises in response to receiving any kind of personal benefit as a result of any transactional means (Emmons, 2007)	.11 to .60 [.06, .66]	Froh et al. (2011) Froh et al. (2009) Proctor et al. (2010)	~.28 [.23, .33]	Froh et al. (2011)
Zest	Approaching life with excitement and energy (Park, & Peterson, 2006b)	.31 to .50 [.24, .59]	Park & Peterson (2006a) Park & Peterson (2006b)	Limited available research	
Optimism	The degree to which a person subscribes to positive expectancies towards his or her future, including perceiving life goals as attainable (Utsey et al., 2008).	.24 to .65 [.11, .68]	Chang et al. (2007) Gadermann et al. (2011) Froh et al. (2009) Ho et al. (2010) Lai (2009) Oberle et al. (2011) Piko et al. (2009) Veronese et al. (2012) Wong & Lim (2009)	.13 to .27 [.07, .39]	Creed et al. (2002) Lounsbury et al. (2002) Vidal et al. (2012)

¹ SWB = Subjective well-being; ² = School/student achievement

Note. Modified from: Rebelez, J. L. (2015). *Capturing complete mental health among adolescents: Investigation of latent class typologies of covitality*. Doctoral dissertation, University of California Santa Barbara.

SEHS–Secondary Grades 7–12 Form

Directions: You are being asked to take a survey about how you have felt over the past few weeks. Your school is doing this survey to better understand your school experiences. With this information, your school wants to provide support to help improve your school experiences.

Read each item and choose the response that best describes you. Please respond honestly. There are no right or wrong answers. You can skip questions you don't want to answer.		Not at all true	A little true	Pretty much true	Very much true
1	I can work out my problems.	Not at all true	A little true	Pretty much true	Very much true
2	I can do most things if I try.	Not at all true	A little true	Pretty much true	Very much true
3	There are many things that I do well.	Not at all true	A little true	Pretty much true	Very much true
4	There is a purpose to my life.	Not at all true	A little true	Pretty much true	Very much true
5	I understand why I do what I do.	Not at all true	A little true	Pretty much true	Very much true
6	I understand my moods and feelings.	Not at all true	A little true	Pretty much true	Very much true
7	When I do not understand something, I ask the teacher again and again until I understand.	Not at all true	A little true	Pretty much true	Very much true
8	I try to answer all the questions asked in class.	Not at all true	A little true	Pretty much true	Very much true
9	When I try to solve a math problem, I will not stop until I find a final solution.	Not at all true	A little true	Pretty much true	Very much true
10	At my school, there is a teacher or some other adult who always wants me to do my best.	Not at all true	A little true	Pretty much true	Very much true
11	At my school, there is a teacher or some other adult who listens to me when I have something to say.	Not at all true	A little true	Pretty much true	Very much true
12	At my school, there is a teacher or some other adult who believes that I will be a success.	Not at all true	A little true	Pretty much true	Very much true
13	My family members really help and support one another.	Not at all true	A little true	Pretty much true	Very much true
14	My family really gets along well with each other.	Not at all true	A little true	Pretty much true	Very much true
15	There is a feeling of togetherness in my family.	Not at all true	A little true	Pretty much true	Very much true
16	I have a friend my age who really cares about me.	Not at all true	A little true	Pretty much true	Very much true
17	I have a friend my age who talks with me about my problems.	Not at all true	A little true	Pretty much true	Very much true

Read each item and choose the response that best describes you. Please respond honestly. There are no right or wrong answers. You can skip questions you don't want to answer.		Not at all true	A little true	Pretty much true	Very much true
18	I have a friend my age who helps me when I'm having a hard time.	Not at all true	A little true	Pretty much true	Very much true
19	I accept responsibility for my actions.	Not at all true	A little true	Pretty much true	Very much true
20	When I make a mistake I admit it.	Not at all true	A little true	Pretty much true	Very much true
21	I can deal with being told no.	Not at all true	A little true	Pretty much true	Very much true
22	I feel bad when someone gets his or her feelings hurt.	Not at all true	A little true	Pretty much true	Very much true
23	I try to understand what other people go through.	Not at all true	A little true	Pretty much true	Very much true
24	I try to understand how other people feel and think.	Not at all true	A little true	Pretty much true	Very much true
25	I can wait for what I want.	Not at all true	A little true	Pretty much true	Very much true
26	I don't bother others when they are busy.	Not at all true	A little true	Pretty much true	Very much true
27	I think before I act.	Not at all true	A little true	Pretty much true	Very much true
28	Each day I look forward to having a lot of fun.	Not at all true	A little true	Pretty much true	Very much true
29	Overall, I expect more good things to happen to me than bad things.	Not at all true	A little true	Pretty much true	Very much true
30	I usually expect to have a good day.	Not at all true	A little true	Pretty much true	Very much true
31	On most days I feel energetic	Not at all true	A little true	Pretty much true	Very much true
32	On most days I feel active	Not at all true	A little true	Pretty much true	Very much true
33	On most days I feel enthusiastic	Not at all true	A little true	Pretty much true	Very much true
34	On most days I feel, grateful	Not at all true	A little true	Pretty much true	Very much true
35	On most days I feel, thankful	Not at all true	A little true	Pretty much true	Very much true
36	On most days I feel, appreciative	Not at all true	A little true	Pretty much true	Very much true

SEHS-S Scoring Form (page 1)

1. I can work out my problems. (1-4)	
2. I can do most things if I try. (1-4)	
3. There are many things that I do well. (1-4)	
Self-Efficacy average item response (AIR) = $(1+2+3) / 3$	AIR
4. There is a purpose to my life. (1-4)	
5. I understand my moods and feelings. (1-4)	
6. I understand why I do what I do. (1-4)	
Self-Awareness average item response (AIR) = $(4+5+6) / 3$	AIR
7. When I do not understand something, I ask the teacher again and again until I understand. (1-4)	
8. I try to answer all the questions asked in class. (1-4)	
9. When I try to solve a math problem, I will not stop until I find a final solution. (1-4)	
Persistence average item response (AIR) = $(7+8+9) / 3$	AIR
Belief In Self Total average item response (AIR) = $(1+2+3+4+r5+6+7+8+9) / 9$	AIR

10. At my school, there is a teacher or some other adult who always wants me to do my best. (1-4)	
11. At my school, there is a teacher or some other adult who listens to me when I have something to say. (1-4)	
12. At my school, there is a teacher or some other adult who believes that I will be a success. (1-4)	
School Support average item response (AIR) = $(10+11+12) / 3$	AIR
13. My family members really help and support one another. (1-4)	
14. There is a feeling of togetherness in my family. (1-4)	
15. My family really gets along well with each other. (1-4)	
Family Support average item response (AIR) = $(13+14+15) / 3$	AIR
16. I have a friend my age who really cares about me. (1-4)	
17. I have a friend my age who talks with me about my problems. (1-4)	
18. I have a friend my age who helps me when I'm having a hard time. (1-4)	
Peer Support average item response (AIR) = $(16+17+18) / 3$	AIR
Belief In Others Total average item response (AIR) = $(10+11+12+13+14+ 15+16+17+18) / 9$	AIR

SEHS-S Scoring Form (page 2)

19. I accept responsibility for my actions. (1-4)	
20. When I make a mistake I admit it. (1-4)	
21. I can deal with being told no. (1-4)	
Emotional Regulation average item response (AIR) = (19+20+21) / 3	AIR
22. I feel bad when someone gets his or her feelings hurt. (1-4)	
23. I try to understand what other people go through. (1-4)	
24. I try to understand how other people feel and think. (1-4)	
Empathy average item response (AIR) = (22+23+24) / 3	AIR
25. I can wait for what I want. (1-4)	
26. I don't bother others when they are busy. (1-4)	
27. I think before I act. (1-4)	
Self-Control average item response (AIR) = (25+26+27) / 3	AIR
Emotional Competence Total average item response (AIR) = 19+20+21+22+23+24+25+26+27) / 9	AIR

28. Each day I look forward to having a lot of fun. (1-4)	
29. I usually expect to have a good day. (1-4)	
30. Overall, I expect more good things to happen to me than bad things. (1-4)	
Optimism average item response (AIR) = (28+29+30) / 3	AIR
31. Since yesterday how much have you felt GRATEFUL. (1-4)	
32. Since yesterday how much have you felt THANKFUL. (1-4)	
33. Since yesterday how much have you felt APPRECIATIVE. (1-4)	
Gratitude average item response (AIR) = (31+32+33) / 3	AIR
34. How much do you feel ENERGETIC right now? (1-4)	
35. How much do you feel ACTIVE right now? (1-4)	
36. How much do you feel ENTHUSIASTIC right now? (1-4)	
Zest average item response (AIR) = (34+35+36) / 3	AIR
Engaged Living Total average item response (AIR) = (28+29+30+31+32+33+34+35+36) / 9	AIR

SEHS-S Scoring Form (page 3)

Summary Average Item Responses (AIR) (transfer values from above here)	
Belief in Self (BIS)	AIR
Belief in Others (BIO)	AIR
Emotional Competence (EC)	AIR
Engaged Living (EL)	AIR
Total Covitality	(Item average response for (BIS+BIO_EC+EL) /4) AIR

SEHS-S Average Item Response (AIR) Profile

Student: _____ Date: _____

AIR	S-E	S-A	Per	BIS	PS	SS	FS	BIO	E	ER	S-C	EC	O	G	Z	EL	CoV
4.0				4.0				4.0				4.0				4.0	4.0
3.9																	3.9
3.8																	3.8
3.7																	3.7
3.6																	3.6
3.5																	3.5
3.4																	3.4
3.3																	3.3
3.2																	3.2
3.1																	3.1
3.0				3.0				3.0				3.0				3.0	3.0
2.9																	2.9
2.8																	2.8
2.7																	2.7
2.6																	2.6
2.5																	2.5
2.4																	2.4
2.3																	2.3
2.2																	2.2
2.1																	2.1
2.0				2.0				2.0				2.0				2.0	2.0
1.9																	1.9
1.8																	1.8
1.7																	1.7
1.6																	1.6
1.5																	1.5
1.4																	1.4
1.3																	1.3
1.2																	1.2
1.1																	1.1
1.0				1.0				1.0				1.0				1.0	1.0
	Self-Efficacy	Self-Awareness	Persistence	A. Belief In Self	Peer Support	School Support	Family Support	B. Belief In Others	Empathy	Emotional Regulation	Self-Control	C. Emotional Competenc	Gratitude	Zest	Optimism	D. Engaged Living	Covitality Total (A+B+C+D/4)

Responses: 1 = not at all true, 2 = a little true, 3 = pretty much true, 4 = very much true. CoV = AIR of (A + B + C + D) / 4 = _____. Shaded = AIR ± 1 standard deviation (16th to 84th percentiles).
 Based on the responses of 119,756 California students in Grades 7-12.

Notes: _____

SEDS Student Report Form

	Item	Not at all true	A little true	Pretty much true	Very much true
1	I had a hard time breathing because I was anxious.	Not at all true	A little true	Pretty much true	Very much true
2	I worried that I would embarrass myself in front of others.	Not at all true	A little true	Pretty much true	Very much true
3	I was tense and uptight.	Not at all true	A little true	Pretty much true	Very much true
4	I had a hard time relaxing.	Not at all true	A little true	Pretty much true	Very much true
5	I felt sad and down.	Not at all true	A little true	Pretty much true	Very much true
6	I was easily irritated.	Not at all true	A little true	Pretty much true	Very much true
7	It was hard for me to get excited about anything.	Not at all true	A little true	Pretty much true	Very much true
8	I was easily annoyed and sensitive.	Not at all true	A little true	Pretty much true	Very much true
9	I was scared for no good reason.	Not at all true	A little true	Pretty much true	Very much true
10	It was hard for me to cope and I thought I would panic.	Not at all true	A little true	Pretty much true	Very much true

SEDS Scoring Form

Student:	Date:
1. I had a hard time breathing because I was anxious. (1-4)	
2. I worried that I would embarrass myself in front of others. (1-4)	
3. I was tense and uptight. (1-4)	
4. I had a hard time relaxing. (1-4)	
5. I felt sad and down. (1-4)	
6. I was easily irritated. (1-4)	
7. It was hard for me to get excited about anything. (1-4)	
8. I was easily annoyed and sensitive. (1-4)	
9. I was scared for no good reason. (1-4)	
10. It was hard for me to cope and I thought I would panic. (1-4)	
SEDS TOTAL	average item response (AIR) = $1+2+3+4+5+6+7+8+9+10$ / 10
	AIR

SEDS Average Item Response Profile

Item Response	1	2	3	4	5	6	7	8	9	10	Item Response
Very much true (4)											Very much true
Pretty much true (3)											Pretty much true
A little true (2)											A little true
Not at all true (1)											Not at all true
	1. Hard time breathing	2. Embarrass self in class	3. Tense, uptight	4. Hard time relaxing	5. Sad and Down	6. Easily irritated	7. Hard to get excited	8. Annoyed and sensitive	9. Scared, no good reason	10. Hard cope, panic	

AIR = 2.0... standard deviation = 1.0 ...16th to 84th percentile range = 1.0 to 3.0.... AIR based on responses of 119,756 California students in Grade 7-12. and for access to prevention and intervention strategy resources, see <http://project-covitality.info/prevention-and-intervention/>

Example of Parent Informed Consent Notification

Our school district is committed to the social and emotional health of our students. This year, all of our Grade 7-12 classes will be participating in a brief universal screening survey to help measure our students' social and emotional strengths and challenges. All students who agree to participate will complete a short 10-15 minute survey during regularly scheduled school activities in March 2019. A copy of the survey questions are available below.

Assessing the social and emotional functioning of children and adolescents helps to promote student success. Academic difficulties, along with challenges associated with developing and maintaining positive relationships with others, can be related to underlying social and emotional factors. When identified early, difficulties can be addressed before negatively affecting children and adolescents.

Your child does not have to participate. Participation in the survey is voluntary and opting out will not impact your child's academic status or access to services. Prior to taking the survey, all students will be informed that their participation is voluntary and that opting out will in no way impact their standing at school. All information collected will be kept confidential in accordance with FERPA privacy guidelines. You may request a copy of your child's survey results by directly contacting your student's school office.

The school administration at your child's school will receive the results of the survey. If your child responds to the survey in a way that indicates a possible risk for behavioral, emotional, or social challenges, designated school staff will follow up with your child accordingly. The administrative team will then determine if your child would be interested in, and/or benefit from additional support services to help him/her progress as an important and engaged member of our school community. You will be informed before any further assessments, interventions, or services are conducted or implemented.

If you do not want your child to complete the survey, please send the bottom portion of the letter that was mailed to your home back to your child's school. Your child's participation in the survey will signal to us your acceptance for your child to participate in the school's social-emotional screening process. You may have your child withdraw participation at any time. If you have additional questions regarding the screening program, please contact your site administration and/or school psychologist.

Example Survey Administration Script

Thank you for your help! We have provided you with classroom rosters to administer the survey. On the roster, we have highlighted the students in your classroom whose parents **DECLINED** consent to the survey. **Please DO NOT administer the survey to the students who are highlighted.** Please ask these students to engage in a quiet alternate activity until the entire class has finished.

If a student was absent the first day of the survey, please ask the student to complete the survey the following day. If you were not able to administer the survey to a student, please mark on the roster **who was absent** (write "A" next to student name) or is no longer enrolled in your class (write "E" next to student name). On DATE, please return your roster to SCHOOL STAFF so we can follow up individually with these students.

SCHOOL staff and the Wellness Survey team members will be on campus to help facilitate survey administration. If you have any questions or need assistance, please contact SCHOOL STAFF (email) and a team member will provide assistance immediately.

If a student appears to be in distress during or after the survey, please send the student to SCHOOL STAFF office.

Script for the Survey Process (Please read the following aloud to the students taking the survey. Your dedication and commitment to the survey will help communicate the importance of this to your students. Also, as personal information is asked, please do your best to keep a quiet and comfortable environment for the benefit of all students).

SCHOOL is committed to developing programs to help you learn better and feel better about your experiences in school. Today you are being asked to complete a survey to answer some questions about how you feel and how you have felt over the last few weeks. Please be honest in your responses as the counselors and other staff at your school will use this information to support students. The school staff will not share your answers with anyone unless they think you might benefit from extra support. We are truly interested in your opinions so we can help out students like you. There are no right or wrong answers.

Please go to the SCHOOL website. Go to the Student Wellness Survey link under News & Announcements. In the top right corner of each page, there is a drop down menu where you can choose which language, English or Spanish, to take the survey in.

You'll be asked to provide some background information about yourself. Then, you'll be asked if you agree to participate in the survey. Please indicate if you will or will not take the survey. Then, please click NEXT to begin the survey. *(If a student chooses not to complete the survey, out of courtesy to the other students please ask them to sit quietly until the other students finish)*

If you do not understand one of the statements, please raise your hand and I'll come around to answer your question. **This survey should take no more than 15-20 minutes to complete.** You can now begin. Please let me know when you have finished the survey.

Thank you!!

Student Wellness Survey Follow-up Checklist 1

Student: _____

FIRST FOLLOW-UP MEETING (date: _____)

- Let the student know you asked to meet with you to review and talk about the Student Wellness Survey.
- Review student's survey responses focusing on both strengths, and any reported distress.
- Ask student about any distress they might have been having in the past few weeks.
 - o How are these still a concern for the student?
- Ask student what they do now when they face a challenge or feel distressed.
- Identify strategies the student can use when in distress.
- Ask student about who they usually go to for support (i.e., home/family, peers, teachers, etc.).
 - o Discuss sources of support students can utilize when in distress.

Take notes on back of page.

SECOND FOLLOW-UP MEETING: (date: _____)

- Review brief screener administered at first meeting.
- Discuss whether student needs ongoing support or services.
- Discuss options with student.

Resources:

Here are some resources, if needed:

1. SDQ: Strengths and Difficulties Questionnaire: <http://www.sdqinfo.com/>
2. DASS-21: Online administration and scoring utility
<https://www.breakthrough.com/assessments/dass/new>
<https://www.thecalculator.co/health/DASS-21-Depression-Anxiety-Stress-Scale-Test-938.html>
3. Behavior Assessment Scale for Children (BASC-3 BESS)
<https://www.pearsonclinical.com/education/products/100001482/basc3-behavioral-and-emotional-screening-system--basc-3-bess.html>
4. PHQ Screening surveys: <https://www.phqscreeners.com/select-screener/41>
5. CASEL SEL Assessment Guide (public version available projected for late 2018)
<http://measuringSEL.casel.org/assessment-guide/>
6. SHAPE: School Health Assessment and Performance Evaluation System, National School Mental Health Center, University of Maryland. Register your school/district for SHAPE and then you will be able to access numerous assessment resources: <https://theshapesystem.com/register>

¹ This page provides a suggested way that school personnel can coordinate and follow-up with students after they completed the Student Wellness Survey.

Appendix, Table 2. Cross-sectional Sample Descriptive Information by Grade Level.

Sample Descriptive Information	Grades 7-8		Grades 9-10		Grades 11-12		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Grade (4061 missing, 9.7%)	33333	23.4	44771	37.4	37591	28.1	119756	100.0
Gender (4061 missing, 3.4%)								
Male	16252	48.8	21758	48.6	18224	48.5	56234	48.6
Female	17081	51.2	23013	51.4	19367	51.5	59461	51.4
Ethnicity (9393 missing, 7.8%)								
American Indian, Alaskan Native	1042	3.3	1509	3.5	1273	3.6	3824	3.5
Asian ^a	4672	14.8	5878	13.6	5362	15.1	15922	14.4
Black, African American	1054	3.3	1267	2.9	1129	3.2	3450	3.1
Native Hawaiian, Pacific Islander	351	1.1	764	1.8	622	1.7	1737	1.6
White	8491	26.9	15144	35.0	14934	42.0	38569	34.9
Mixed (2 or more)	15932	50.5	18689	43.2	12240	34.4	46861	42.5
Hispanic identification (820 missing, 0.7%)								
Non-Latinx	17334	52.1	23894	51.2	20356	52.2	61594	51.8
Hispanic, Latinx	15926	47.9	22764	48.8	19662	47.8	57352	48.2
Living circumstances (321 missing, 0.3%)								
Home with 1+ parents/guardians	30095	89.6	43153	92.2	36553	93.5	109781	91.9
Other relative	644	1.9	705	1.5	581	1.5	1930	1.6
Home more than one family	1397	4.2	1662	3.6	1223	3.1	4282	3.6
Friend's home	56	0.2	94	0.2	105	0.3	255	0.2
Foster, group home	119	0.4	107	0.2	90	0.2	316	0.3
Hotel, motel	45	0.1	48	0.1	34	0.1	127	0.1
Shelter, car, temp. housing	77	0.2	106	0.2	86	0.2	269	0.2
Other	1147	3.4	914	2.0	414	1.1	2475	2.1
Parent education (highest parent) (497 missing, 0.4%)								
Did not finish high school	2433	7.3	5949	12.7	5829	14.9	14211	11.9
Graduated high school	4011	12.0	6985	14.9	6255	16.0	17251	14.5
Attended some college	3308	9.9	5916	12.7	5935	15.2	15159	12.7
College degree (4 year)	15059	45.0	21617	46.2	17854	45.8	54530	45.7
Do not know	8680	25.9	6285	13.4	3143	8.1	18108	15.2
Free, reduced-price lunch program (664 missing, 0.6%)								
No	12526	37.4	22360	31.2	20669	53.1	55555	46.6
Yes	14480	43.2	18884	53.8	16681	40.3	49045	41.2
Don't know	6481	19.4	5418	15.3	2593	6.7	12635	12.2
Migrant education in past 3 years (4102 missing, 3.4%)								
No	22638	67.9	36531	81.7	33893	90.2	93062	80.5
Yes	632	1.9	954	2.1	789	2.1	2375	2.1
Don't know	10094	30.3	7225	16.2	2898	7.7	17920	17.5
Home language (206 missing, 0.2%)								
English	21776	64.7	31173	61.2	26763	66.7	79712	66.7
Spanish	8489	25.2	11629	30.1	8959	22.9	29077	24.3
Mandarin	407	1.2	616	0.7	535	1.4	1558	1.3
Cantonese	400	1.2	253	1.9	281	0.7	934	0.8
Taiwanese	41	0.1	33	0.1	46	0.1	120	0.1
Tagalog	231	0.7	489	0.3	393	1.0	1113	0.9
Vietnamese	516	1.5	380	1.2	342	0.9	1238	1.0
Korean	118	0.4	360	0.1	299	0.8	777	0.6
Other	1691	5.0	1890	4.3	1440	4.2	5021	4.2

^a 36.3% of the students reported the following specific Asian sociocultural group identification: Asian Indian = 3958 (3.3%), Cambodian = 617 (0.5%), Chinese = 7117 (5.9%), Filipino 6302 (5.3%), Hmong = 699 (0.6%), Japanese = 2166 (1.8%), Korean 2156 (1.8%), Laotian = 766 (0.6%), Vietnamese = 3085 (2.6%), Native Hawaiian, Guamanian, Samoan, Tahitian, other Pacific Islander = 2084 (1.7%), Other Asian = 2610 (2.2%).

Number of schools: 296...Charter schools: 10635 (8.9%)...Alternative schools: 1168 (1.0%)...38 of 58 California Counties, 291 schools...

Average time to complete the survey: $M = 24.3$ min, $SD = 9.4$ min, $Md = 23$ minutes...75% completed the survey in 29 or less minutes... 90% completed the survey in 35 or fewer minutes.

Appendix, Table 3. Item Response Means, SDs for Grade and Gender ($N = 119,756$)

Descriptive Information	Grades 7-8		Grades 9-10		Grades 11-12		Male		Female		Total	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>SEHS-Secondary</i>												
Belief in Self (BS)	2.90	.68	2.80	.67	2.81	.65	2.92	.66	2.72	.66	2.83	.67
Self-Efficacy	3.12	.72	3.05	.74	3.09	.72	3.14	.73	3.03	.73	3.08	.73
Persistence	2.58	.84	2.45	.83	2.39	.82	2.56	.83	2.39	.82	2.49	.83
Self-Awareness	3.04	.81	2.91	.82	2.93	.80	3.05	.80	2.87	.82	2.96	.81
Belief in Others (Bo)	3.16	.66	3.02	.68	3.03	.67	3.03	.68	3.10	.67	3.06	.68
School Support	3.13	.78	2.98	.83	3.03	.83	3.03	.81	3.04	.82	3.04	.82
Family Support	3.20	.85	3.00	.90	2.91	.92	3.09	.87	2.98	.92	3.03	.90
Peer Support	3.13	.94	3.10	.94	3.14	.93	2.97	.96	3.28	.89	3.12	.94
Emotional Competence (EC)	3.04	.64	3.01	.62	3.07	.59	2.99	.64	3.09	.59	3.04	.62
Emotional Regulation	3.11	.73	3.07	.72	3.14	.69	3.12	.73	3.10	.70	3.11	.71
Empathy	3.16	.81	3.13	.80	3.20	.77	3.02	.83	3.30	.73	3.16	.79
Self-Control	2.86	.72	2.83	.70	2.87	.69	2.84	.71	2.86	.68	2.85	.70
Engaged Living (EL)	2.96	.81	2.75	.81	2.71	.80	2.85	.81	2.76	.81	2.80	.81
Gratitude	3.10	.90	2.92	.90	2.92	.90	2.95	.91	3.00	.89	2.97	.90
Zest	2.90	.95	2.64	.95	2.56	.94	2.78	.94	2.62	.97	2.69	.95
Optimism	2.88	.91	2.69	.89	2.66	.88	2.82	.89	2.66	.90	2.73	.90
Covitality Total (CoV)	3.02	.59	2.90	.58	2.90	.56	2.95	.59	2.93	.57	2.93	.58
<i>Other validity measures</i>												
SEDS	1.87	.81	2.04	.87	2.11	.87	1.79	.77	2.22	.89	2.01	.86
School Connectedness	3.71	.81	3.59	.80	3.52	.81	3.65	.81	3.57	.80	3.60	.80

Note. A four-point response format was used with all measures (1 = *not at all true*, 2 = *a little true*, 3 = *pretty much true*, 4 = *very much true*) except with the School Connectedness (belonging), which used a 5-point response format (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree or disagree*, 4 = *agree*, 5 = *strongly agree*). SEDS = Social Emotional Distress Scale.

Appendix, Table 4. Descriptive statistics for the 4-month, One-year test-retest samples.

	Grades 9-12 4-Month	Grades 8 to 9 and 9 to 10 One-year	Grades 10 to 11 and 11 to 12 One-year
Number	159	521	422
Gender			
Male	50.1%	45.3%	45.3%
Female	48.4%	53.0%	53.1%
Other	0.6%	1.7%	1.7%
Ethnicity			
White	42.8%	50.8%	41.9%
Latinx or Hispanic	45.3%	30.0%	41.0%
American Indian/Alaska Native	1.9%	1.2%	1.4%
Asian	5.7%	2.3%	4.0%
Black or African American	0.6%	2.5%	2.1%
Other self-identification	3.8%	13.3%	9.4%
Grade			
Grade 8	—	10.2%	—
Grade 9	24.5%	89.8%	—
Grade 10	22.6%	—	76.8%
Grade 11	28.9%	—	23.2%
Grade 12	23.9%	—	—

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Covitality Online Resources

Home Page: <https://www.covitalityucsb.info/index.html>

Research Resources: <https://www.covitalityucsb.info/research.html>

Survey Information: <https://www.covitalityucsb.info/sehs-measures/index.html>

Publication List: https://www.covitalityucsb.info/ewExternalFiles/SEHS_Pubs_Sep%2014_2019.pdf

Prevention and Intervention Strategies

General Resources: <https://www.covitalityucsb.info/resources/mental-wellness.html>

Belief in Self Resources: <https://www.covitalityucsb.info/resources/bis.html>

Belief in Others Resources: <https://www.covitalityucsb.info/resources/bio.html>

Emotional Competence Resources: <https://www.covitalityucsb.info/resources/ec.html>

Engaged Living Resources: <https://www.covitalityucsb.info/resources/el.html>

Social Emotional Learning Resources: <https://www.covitalityucsb.info/resources/sel-resources.html>

Screening Resources: <https://www.covitalityucsb.info/screening.html>

Infographics

School Safety and Wellbeing: <https://www.covitalityucsb.info/infographics/safety-and-wellness.html>

Covitality Subdomains : <https://www.covitalityucsb.info/infographics/sehs-subdomains.html>

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Suggested citation: Furlong, M. J., Nylund-Gibson, K., Dowdy, E., Wagle, R., Hinton, T., & Carter, D. (2020). *Modification and standardization of Social Emotional Health Survey-Secondary— 2020 edition (V1.0)*. Santa Barbara, CA, University of California Santa Barbara, International Center for School Based Youth Development.