

## Social Emotional Health with Self-Awareness Predicts First-Year College Student Success

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### Abstract

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*Academic success depends on social emotional health, especially in the transition to college. The Social Emotional Health Survey (SEHS; Furlong, You, Shishim & Dowdy, 2016) and the College Student Behavior Checklist (CSBC) are measured in first-year college students. The SEHS is a measure of co-vitality that includes belief-in-self, belief-in-others, emotional competence, and engaged living. Self-awareness, social awareness, and relationship management parallel these SEHS factors in Goleman's original model of emotional intelligence (1995, 2001). In the present study, the SEHS is predicted by the CSBC and by self-awareness of future grades. The CSBC includes a primary component that is a set of successful first-year college student behaviors called College Vitality (CV). CV includes asking for help from professor and from peers, reassessing study habits, going to office hours, studying in a group, speaking up in class, planning more, reading before attending class, going to tutoring and testing centers, and being aware of grades. Up to 50% of the variance in first semester GPA is predicted by self-awareness of future grades which is correlated with both the SEHS and the CSBC.*

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College students must rely on both academic and emotional intelligence when making the transition from high school. In the present research, first-year undergraduates are asked to report their emotional intelligence and tendency to utilize good college student behaviors in order to predict academic success in their first semester grades. The present study introduces a set of questions about good college student behaviors. The College Student Behavior Checklist (CSBC) is a set of novel scenarios measuring "is this like me" questions. Socio-emotional health as measured by the SEHS (Furlong, You, Shishim, Dowdy, 2016) which has been shown to predict learning uniquely over and above academic predictors like GPA. In the present study, college vitality as measured by the SEHS, CSBC and grade awareness will be a reliable predictor of grades.

### *Models of emotional intelligence*

College vitality is predicted to have a similar structure to the original *Goleman theory* of emotional intelligence (1995, 2001).

Goleman's theory is compared to a more modern and psychometrically-strong *co-vitality* model by Furlong and his colleagues. Furlong's survey, the SEHS-HE, has proven to have good reliability and validity on college-age samples (see Higher Education edition, Furlong, You, Shishim, and Dowdy, 2016). The four aspects of the latent structure of the SEHS correspond well with the theoretical 2 X 2 structure of Goleman's model of emotional intelligence or EI. Furlong's model includes belief-in-self, belief-in-others, emotional competence, and engaged living and Goleman's model includes self-awareness, self-management, social awareness and relationship management. The present study looks to use the best of each of these models in creating a predictive model of college success called College Vitality.

If college vitality as measured in the present study can predict success, then this is strong evidence that the students must manage both self and others in the social realm, Goleman's emotional intelligence, and Furlong's co-vitality, as well as manage academic content. Emotional intelligence and co-vitality research show that self-management and self-awareness are necessary, but insufficient for relationship management and social-awareness (Furlong et al., 2016). A four-factor theory of emotional intelligence ties together Goleman's original concept and Furlong's newer one based on the SEHS. The current study predicts statistical and theoretically-predictive factors including self-awareness or belief-in-self (Goleman factor followed by Furlong factor), self-management or belief-in-others, social awareness or emotional competence, and relationship management or engaged living. The Goleman to Furlong pairings are not precise, but combined with a checklist of good student behaviors, may help better predict academic success than other known tools. A predictive tool will be developed into an application for improving learning.

#### *Measuring emotional intelligence*

Many measures of emotional intelligence rely on self-report and are subject to social desirability and other biases (Bar-on, 2002; Zachariah, Boman, Mergler, & Furlong, 2015). Since there is some evidence that self-report alone is insufficient (see Grubb & McDaniel, 2007), a behavior checklist based on real situations in college is introduced. The present study aims to measure emotional intelligence by self-report, the SEHS, and by a College Student Behavior Checklist (CSBC) in order to predict grades, awareness of grades, and retention in diverse first-year college students. If a four-factor model of emotional intelligence can be shown to predict diverse college student success, then it can be part of a plan to improve learning.

Academic skill as measured by course grades is a marker of success that may be mediated by emotional intelligence (Kimbark, Peters, & Richardson, 2017). High school GPA reliably predicts first-year college GPA, and first-year college GPA predicts retention to sophomore year (Stewart, Lim, & Kim, 2015). But GPA is also clearly predicted by social competencies like stress management skill, study strategy skill, and relationship management, all components of emotional intelligence. Emotional intelligence relies on both intrapersonal and interpersonal knowledge (Goleman, 1995, 2001, 2006). First-year students must be encouraged to practice both academic and emotional intelligence to be maximally effective. African-American students who show persistence or "grit" do better in college, even when controlling for academic ability (Strayhorn, 2013). Grit has been defined as passion and perseverance directed towards a goal (Duckworth, 2016). Duckworth, Peterson, Matthews, and Kelly (2007) found that sustained and focused application of talent over time, grit, predicted a reliable amount of variance in college student success.

Goleman (2001) presents a 2 (personal competence) X 2 (social competence) model of emotional intelligence. *Personal competence* includes self-awareness and self-management. Self-awareness is a recognition skill and includes accurate self-assessment and confidence. Self-management is a regulation skill and is the result of good self-awareness and includes emotional self-control, adaptability and achievement drive. There can be no self-management without good self-awareness. Students who are less aware of their own academic success are also less skilled in EI. Students who are aware of their own emotional strengths and weaknesses must then apply that knowledge in order to adapt and achieve in the emotional realm. Awareness then is a goal of the present research and will inform applications to successful learning. *Social competence* includes social awareness and relationship management. Social awareness arises from empathy, service orientation, and organizational awareness. Relationship management includes a long list of regulatory skills like conflict management, building bonds, and teamwork and collaboration. This model has face validity with Furlong's co-vitality model and the present study will compare them statistically and in a diverse sample.

### *The socio-emotional health survey*

The measurement tool called the Social Emotional Health Survey or SEHS (Furlong, You, Shishim, & Dowdy, 2016) mirrors some of the structure of Goleman's original concept. The SEHS measures subjective well-being and has a four-month stability coefficient of .82, indicating it reliably predicts trait-like psychological constructs. Co-vitality is part of the latent higher-order structure of 36 items consisting of four latent traits. The first is *belief-in-self* (subscales: self-efficacy, persistence, self-awareness) and has face validity with Goleman's 2 X 2 model, cell "*self-awareness*". *Self-management* a second component of Goleman's model is called *engaged living* (subscales: gratitude, zest, optimism). *Social awareness* in Goleman is most like *emotional competence* (subscales: cognitive reappraisal, empathy, self-regulation). *Social management or relationship management* in Goleman's model reflects *belief-in-others* from the SEHS (subscales: family support, institutional support, peer support). Because of the strong psychometric properties and close face validity of structure with Goleman's 2 X 2 model of emotional intelligence, the SEHS will be used to assess self-report traits (Furlong et al., 2016).

Parker, Hogan, Eastabrook, Oke, and Wood (2006) found that the best predictor of a successful transition from high school to college in a large Canadian sample matched for age, gender, and ethnicity, was emotional and social competence. Parker et al. measured emotional intelligence by the EQ-i:Short (Bar-on, 2002). Bar-on created a 10-item measure of intra and interpersonal abilities, stress management, and adaptability. There is some evidence that it can be easily "faked", that is, it is highly correlated with the Big Five measures of personality, especially "agreeableness". Grubb and McDaniel (2007) showed that using the Bar-on short form as an applicant tool to predict college student success was reliably influenced by suggestions to be honest or to fake honesty. The within subject design was counterbalanced for order, but was still limited by the cognitive skill by which each student could fake well. Self-report tests like the Bar-on must be supplemented by behavior checklist type questions asking about specific actions related to self-awareness and management, and to social awareness and relationship management. The Bar-on EQ-i:Short does not fare well compared to the SEHS in terms of reliability and validity. The SEHS seems to be particularly well-suited to counter claims of less than reliable results because of its high stability over a four-month period (Furlong et al., 2016). It has also been designed to be specific to a particular sample. The SEHS-HE is the higher education edition (Jones, You & Furlong, 2013) and will be compared to the CSBC. A behavior checklist addresses the concerns of a self-report and supports a test of a multi-factor model incorporating both Furlong and Goleman's theoretical views.

### *The college student behavior checklist*

The present study tests a 2 X 2 or four-factor model by building behavior checklist questions that ask about self-awareness, self-management, social awareness and relationship management in real and typical college student scenarios. The SEHS-HE is replicated in a diverse South Florida sample in order to assess early semester EI in a survey that reflects the structure of Goleman's 2 X 2 model. If the CSBC is reliably correlated with the better understood SEHS, then it might be used to implement training in successful behaviors. Moving from self-report of traits to self-report of behaviors is one way of furthering understanding of the dynamics and structure of EI. Diverse first-year students complete the SEHS and the CSBC at the beginning of the first-year seminar class and again at the end, and provide both actual and self-reported grades. Retention and awareness of grades are hypothesized to be predicted by social emotional health as traits, the SEHS, and as behaviors, the CSBC. The structure of the SEHS and the CSBC are hypothesized to follow a 2 X 2, self and other, awareness and management, structure. Students who succeed will have higher levels of self and other awareness and self and relationship management skills. College vitality will be the main component of a structural analysis of the CSBC and will reveal the most important college student behaviors for student success and retention. It is hypothesized that knowing both SEHS and CSBC, along with demographics and economic background, will help predict who will succeed in college and why. A long-term goal is that the structure of prediction will lead to a plan of action to improve first-year student success and retention.

## Method

### *Participants.*

Nine hundred and eighty-nine first-year college students at a large private university in South Florida who were enrolled in a First Year Seminar were asked to participate via email. In this two-part study, 301 students participated in part 1 (30% response rate) and 233 students from part 1 participated in part 2 (77% response rate). By informed consent, all participants agreed to allow protected access to their ethnic and economic backgrounds, high school GPA, SAT or ACT, and college grades and retention.

Table 1 displays participant demographic information including gender, ethnicity, first generation status, high school GPA, and SAT/ACT scores. Average first semester GPA and fall to winter retention rates are also indicated.

#### *Procedure.*

In Part 1 of the study, participants were directed to an online *Opinio* software system to take the *Socio-Emotional Health Survey* (SEHS-HE; Furlong, You, Shishim, & Dowdy, 2016) and the newly developed College Student Behavioral Checklist (CSBC). Participants were emailed in week 2 of the semester and had 2 weeks to complete the online survey. In Part 2 of the study, participants were again directed to the online software system to complete the CSBC once again and were asked to give self-reports of grades.

In addition to the survey and self-report measures, we obtained the following information from student records: age, gender, first in their family to go to college, high school GPA, and estimated family contribution. This latter variable is taken from the Free Application for Federal Student Aid (FAFSA) and is used as a proxy for student's socioeconomic status. All of these measures have been shown to impact student success (e.g. Reason, 2009). At the end of the semester, we will also collect first semester GPA and fall to winter retention as our measures of student success

#### Instruments and Data Analysis.

The Social Emotional Health Survey-Higher Education Edition (SEHS-HE; Furlong, You, Shishim, & Dowdy, 2017) was administered to measure emotional intelligence. The SEHS-HE measures subjective well-being and has a four-month stability coefficient of .82, indicating it reliably predicts trait-like psychological constructs. Through a latent variable analysis, an overall measure of "covitality" can be uncovered consisting of four latent traits of emotional intelligence (belief-in-self, belief-in-others, emotional competence, and engaged living). The present research searched for this same latent structure using a structural equation model (SEM) approach.

We developed a College Student Behavior Checklist (CSBC) as a way to further measure emotional intelligence on the basis of behaviors that the participant has engaged in during their first semester on campus. In this survey, participants read real-life dilemmas that college students face and are then asked to indicate which behavior out of 4 options that they are most likely to engage in to solve the dilemma. The behaviors on the checklist are designed to map onto each of the 4 emotional intelligence components from the SEHS-HE in order to directly compare the two measures. For example, in one dilemma, the student misses an assignment deadline and does not want to miss a second deadline. Participants must select one of the following behaviors: 1) Set a reminder in your phone to alert you 48 hours before the assignment is due (belief in self); 2) Ask a classmate to send you a reminder when they start working on their own assignment (belief-in-others); 3) Start your assignment earlier so that it is completed ahead of the deadline and you won't be anxious (emotional competence); and 4) Missing that first deadline was a fluke. You're confident you won't miss another deadline so you just keep doing what you've always done (engaged living). These four types of dilemmas form the four main theoretical categories first proposed by Goleman (2001) and measured by the SEHS-HE by Furlong and colleagues (2016).

#### Results and Discussion

A multi-factor model of emotional intelligence predicts diverse college student success. Emotional intelligence, especially **self-awareness of grades**, anticipated first-year student success. In a linear regression analysis, up to 45% of the variance in first semester GPA is predicted by self-awareness of future grades which is correlated with both the SEHS and the CSBC at time 1 and time 2,  $R = .65$ ,  $R^2 = .45$ ,  $F(5, 158) = 25.50$ ,  $p < .05$ . Figure 1 shows an SEM predicting first semester GPA. Unique beta weights in the model predicting first semester GPA include "average grade expected",  $t(158) = 10.47$ ,  $p < .05$ . While SEHS and both first and second time CSBC were correlated with "average grade expected", none made a unique contribution to first semester grades. The correlations in the paths are bivariate; those in the blue circle are dependent on all variables in the model and show each contribution of the name latent variable in structural equation model. The tendency to use university resources to get good grades was also correlated with first semester grades, but did not make a unique contribution in the model. Students can predict how well they will do, even if they do not do well. GPA was negatively skewed (skew = 1.20), with most students receiving a GPA above the mean of 3.40. No other variables contributed significantly to the model, including high school GPA, SAT/ACT, financial situation, ethnicity, gender or age. Only 46% of participants were simply white so this represents a "majority-minority" sample.

### SEHS and CSBC

The SEHS-HE is predicted by a *College Student Behavior Checklist* (CSBC),  $r = .62$ ,  $p < .001$  at the beginning of the term and again at the midpoint ( $r = .23$ ,  $p < .05$ ). The distribution of the CSBC was relatively normal at Time 1, with a mean of 109 (SD= 17.2), and at Time 2, with a mean of 101 (SD=11.2). The CSBC was significantly lower at Time 2,  $t(218) = 6.52$ ,  $p < .001$ , but many participants did not complete it fully the second time therefore a mean replacement of missing values for CSBC Time 2 was used. The CSBC is correlated at Time 1 (beginning of the term) and Time 2 (at midpoint),  $r = .45$ ,  $p < .05$ . A sum score of CSBC at both Time 1 and Time 2 is correlated with the SEHS,  $r = .56$ ,  $p < .001$ .

#### CSBC Structure at Time 1 and 2

The CSBC at Time 1 includes a primary component that is a set of successful first-year college student behaviors called **College Vitality**. College Vitality includes asking for help from professor and from peers, reassessing study habits, going to office hours, setting reminders, studying in a group, speaking up in class, planning more, reading before class, going to tutoring and testing centers, evaluating your own strengths and weaknesses and being aware of grades. A Confirmatory Factor Analysis was conducted on CSBC Time 1 scores. The CFA produced a model with seven components at Eigen values over 1. The first component, the principal, accounted for 29% of the variance. College Vitality includes asking for help from professor and from peers, reassessing study habits, going to office hours, studying in a group, speaking up in class, planning more, reading before class, going to tutoring and testing centers, and being aware of grades. The second component accounted for another 7%, the next, 6%, down to the 7<sup>th</sup> at 3%.

College Vitality at Time 2 includes a very similar primary component that is also College Vitality: Asking the professor and peers, reassessing study habits, office hours, study schedule, study group, speak up in class, go to tutoring center, prepare by reading before class, and evaluating strengths and weaknesses. The CSBC therefore has good reliability, even though it is lower with several weeks experience in the classroom, and has the same factor analytic structure. Time 2 was reliably lower than Time 1 CSBC, but it showed the same primary component capturing 18% of the variance. Again, 6 other components, each with single digit predictive power, contributed to the overall CSBC at Time 2.

#### SEHS Structure

The measurement tool called the SEHS (Furlong, You, Shishim, & Dowdy, 2016) does indeed mirror the structure of Goleman's original concept. The SEHS measures subjective well-being and has a four-month stability coefficient of .82, indicating it reliably predicts trait-like psychological constructs. Co-vitality is part of the latent higher-order structure of 36 items consisting of four latent traits. A confirmatory factor analysis of the SEHS shows a primary factor accounting for 27% of the variance and it includes a significant loading from all 36 items. There were single digit predictors among the other 6 components with Eigen values greater than 1, but none that included all 36 items, except for the first component. As in Furlong et al. (2016), the structure of the SEHS-HE is reliable with valid primary components. Overcoming challenges, persisting in work, staying focused, identifying motivations, recognizing moods, family and friend support, university support, positive mood, awareness of others and having energy and enthusiasm, are primary just as in the original studies of the instrument as a measure of co-vitality (Jones, You, & Furlong, 2013).

The present study takes the SEHS further by adding the context of college student behaviors to the general personality traits of persistence, people connections, and work ethic. Co-vitality (Furlong et al., 2016) and College Vitality (CSBC, present study) combine to predict first semester grades and are mediated by self-awareness of grades. College students can learn to become better by enhancing their own College Vitality. The present results are also notable for having no predictors among ethnic, age, financial, or other pre-college predictors. Minority students in a majority-minority institution like the one in this study will rise to the challenges of university life when they are in an environment that encourages going to office hours, asking for help, reading before class, using campus resources, and other successful behaviors.

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**Table 1. Basic Demographics of Participants**

	Average	Stdev
HS GPA	4.24/5	0.57
Estimated Family Contribution	\$24,787.55	2.10
First Term GPA	3.87/4	0.22
<b>ETHNICITY</b>		
	N	Percentage
1. Non-Resident Alien	16	5.35
2. Hispanic or Latino	35	11.71
4. Asian	37	12.37
5. Black or African American	41	13.71
7. White	139	46.49
8. More than one	11	3.68
9. Unknown	20	6.69
<b>FIRST GENERATION</b>		
No	210	70.23
Unknown	38	12.71
Yes	51	17.06
<b>GENDER</b>		
F	225	75.25
M	74	24.75
<b>WINTER RETENTION</b>		
No	20	6.69
Yes	279	93.31

**Figure 1.** An SEM showing correlations in paths leading to first semester GPA and blue circle values as the power of each latent variable to predict GPA

