

*States that support students' development of a holistic set of skills may see benefits across a wide range of student outcomes.*

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# Assessing Social-Emotional Learning

Social-emotional learning (SEL) attracted educators' increased interest in 2016. National discussions have focused on the contributions to student success of associated personal characteristics such as "grit" and "growth mind-set,"<sup>1</sup> but also on the potential for high-stakes decision making based on SEL or "noncognitive" assessment results.<sup>2</sup> In part, passage of the Every Student Succeeds Act fueled this debate over SEL and accountability, as the law permits states to include measures of nonacademic areas such as student and teacher engagement in their accountability systems.

On one hand, this new flexibility was a welcome federal recognition of the contribution nonacademic factors make to student academic success. On the other, the validity of using assessments of these factors to inform high-stakes teacher- or school-level accountability decisions remains an open question in need of substantial further research.

## The Case for Focusing on SEL

While basic proficiency in mathematics, reading, and writing is essential, educators and parents alike would more likely list characteristics like perseverance, self-control, creativity, time management, leadership, conscientiousness, and being an effective collaborator when considering what is most important for success in school, work, and life. These characteristics are often dubbed "social-emotional learning competencies," "noncognitive skills," "soft skills," or "21st century skills" in the literature. A growing body of research has consistently demonstrated positive relationships between SEL competency levels and academic achievement, educational attainment, and success in the workforce.<sup>3</sup> Not surprisingly, both employers and institutions of higher education highly value these types of skills.<sup>4</sup>

In addition, survey research on which skill areas US public education systems

should prioritize have consistently extended beyond basic academic skills to more noncognitive aspects such as social skills and work ethic, citizenship, preparation for skilled work, and emotional health.<sup>5</sup> Key for state boards of education (SBEs), some school-based interventions have been shown to be effective in helping students develop such competencies.<sup>6</sup>

Recent reports by nonprofit organizations distilling active lines of research have contributed to the widespread acceptance of the value of noncognitive skills to public education.<sup>7</sup> These have also considered vital practical issues such as the extent to which noncognitive skills are susceptible to intervention, and mechanisms for their reliable and valid assessment. In particular, Farrington et al. (2012) provide three detailed case studies highlighting important transitional periods for students, two of which focus on K-12 environments. Their report summarizes the literature and recommends action based on what is known about how factors such as mind-set and learning strategies in the middle grades and specific academic behaviors in ninth grade influence student success during each transition. Along similar lines and further connoting the field's priority on noncognitive skills, the American Psychological Association's Coalition for Psychology in Schools and Education recently released a "Top 20" list of guiding research-supported principles for preK-12 teaching and learning, the majority of which attend to noncognitive constructs including student motivation, task persistence, self-regulation, emotional well-being, and creativity.<sup>8</sup>

During their formative years, children are naturally in the process of building and developing work habits and social skills while spending a substantial portion of their waking hours either in school or engaged in school-related work or extra-curricular activities. Whether or not the idea has been explicitly codified in policy

or standards SBEs have adopted, educators are fundamentally in the business of guiding student character and emotional development as much as their cognitive and academic capabilities.

The malleability of noncognitive skills across the early and adolescent lifespan is thus crucial in motivating SBE policy development geared toward measuring and encouraging acquisition of those skills.<sup>9</sup> As noted above, skills such as motivation, resilience, emotional intelligence, and self-efficacy have been shown to be susceptible to school-based interventions.<sup>10</sup> Given the established positive relationship between students' effective expression of noncognitive skills and their academic achievement, SBEs taking steps to inspire cultures of holistic student development—versus remaining focused on purely academic subject matter—may see their efforts translated into narrowed achievement gaps between students in districts serving those from underrepresented or historically disadvantaged backgrounds and their more socioeconomically advantaged peers.

With the caveat of potential reference bias,<sup>11</sup> it is also important to note that nationally representative data appear to show significant gaps in reported levels of noncognitive skills themselves between higher and lower socioeconomic status groups. This is not meant to suggest that a sudden focus by SBEs on fostering student noncognitive skills will independently resolve long-standing structural and societal problems inherent to underresourced school systems. However, it seems obvious to suggest that students enrolled in such systems could benefit from interventions to heighten their abilities to cope with, navigate, and persist through the challenges they encounter (academic or otherwise).

There is also evidence that states and districts may realize substantial economic benefits by supporting reforms or interventions aimed at improving students' SEL skills.<sup>12</sup> For example, statewide interventions to encourage prosocial behavior and cooperation in the early grades may result in both substantially increased labor market productivity and reduced costs to the state's criminal justice system.

Having made a case for the vital nature of noncognitive skills development to future student outcomes, increased equity, and the potential for economic benefits accruing to states, the question naturally arises of exactly

how SBEs might go about building a set of policies, standards, or guidelines to both evidence and enhance their support for a more holistic vision of student development. Fortunately, the major issues at play here parallel those with which SBEs are already familiar: 1) the utility of formally adopting state-level standards, 2) the importance of incorporating reliable and valid assessment tools to measure student progress, and 3) the appropriate use of SEL assessment results.

## State-Level Standards

Although near universal at the preschool level, state adoption by states of freestanding K-12 standards targeting noncognitive skills remains a work in progress. Illinois and Kansas have been at the forefront of such work. The leading authority on SEL and standards is the Collaborative for Academic, Social, and Emotional Learning (CASEL). At work for over 20 years, CASEL has produced both research and supportive resources organized around five areas of social and emotional competency: self-management, self-awareness, responsible decision making, relationship skills, and social awareness. CASEL also offers a bank of materials for state-level policymakers. As of October 2015, CASEL reported that only four states had adopted “comprehensive standards for SEL with developmental benchmarks [spanning] K-12.” Another eleven had some SEL standards in place, though these were often limited to the early grades (e.g., K-3).<sup>13</sup> Recent SEL policy developments at the state level have been encouraging, however, with eight more states committing to work together to develop SEL standards, according to an August 2016 article in *Education Week*.

Just as with the Common Core State Standards and similar state academic standards for mathematics and English language arts, SEL standards must be appropriately detailed in their specification and backed by sufficient professional expertise and supportive materials—benchmarks, curricula, teacher professional development—to imbue them with credibility and support their successful implementation. One cost-effective way for an SBE to begin the process of developing such standards would be to review CASEL's resources and adopt a model state's SEL standards either whole cloth or with revision. A complementary strategy would be for SBEs and

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state education agencies to adapt their existing early childhood SEL standards for students in more advanced grades, eventually creating freestanding K–12 standards whose benchmarks represent a natural progression of skill development across the important transitions from early childhood to the completion of high school.

## Validity and Reliability of SEL Assessments

Any effort at implementing state SEL standards must be accompanied by reliable, valid, and conceptually aligned mechanisms for determining the extent to which students and schools have met the standards.<sup>14</sup> Historically such assessments were composed of simple Likert-type survey items commonly used in educational and psychological research (e.g., “On a scale of 1–5, rate your level of agreement/disagreement with ...”). However, a diverse array of assessment techniques can be used for targeting noncognitive skills.<sup>15</sup> Examples include forms of student report such as biographical data (reporting on aspects of their own history), situational judgment tests (asking students to choose the most appropriate or likely response to a given scenario), or forced-choice (two or more prompts presented together where a student must select one that characterizes them best). We can also collect others’ reports or observations of student behaviors (such as teacher ratings of a student’s teamwork or communication skills) or assess students using standardized performance tasks (e.g., arranging a calendar, prioritizing a task list, planning a group project). Without detailing the advantages and disadvantages of each assessment format, we offer three general recommendations.

First, because noncognitive skills tend to be complex and multifaceted, when feasible, multiple types of assessment should be targeted at each construct of interest.<sup>16</sup> Obtaining these multiple perspectives—and not relying on only one source of information—implies a more holistic, thorough assessment and interpretation of student skill levels.

Second, assessments should be standardized to ensure students and teachers are encountering comparable stimuli across school contexts. It is crucial to note, however, that standardization alone is insufficient to ensure the fair comparison of results across schools and districts. Much depends on an assessment’s format, content, intended use, and the potential for reference bias.

Imagine that a group of students from an underperforming school tends to persevere in the face of challenges to the same extent as a group of students from a high-achieving school. However, when asked about their perseverance on a survey, students from the latter school rate themselves lower than students from the underperforming school, perhaps because their reference points are different. Students at the high-achieving school may consider themselves to be less determined on average versus their peers and thus may rate themselves lower on perseverance as a consequence. Conversely, students at the underperforming school may not recognize as many of peers who seem more determined than they are, motivating relatively higher self-ratings. Reference bias is potentially problematic given the popularity and cost-efficiency of standard survey-type scales targeting noncognitive skills.

Thus, our third recommendation is that SBEs and state education agencies work with experts in the field to both build noncognitive assessments and thoroughly research their measurement characteristics, validity, and fairness.<sup>17</sup> Regardless of whether an assessment is to be considered purely for research purposes or for low- or high-stakes uses in the field, ensuring it meets high standards of technical quality is essential to ensure the resulting data can be interpreted as intended.

## Making Appropriate Use of SEL Data

Our own work on SEL assessments has tended to focus on the developmental side of the equation rather than on the accountability side. That is, the main objective has been to build multifaceted, psychometrically rigorous tools in collaboration with schools, consortia of schools, and districts. The information from these tools aids our partners’ efforts to build profiles of the SEL skillsets their students exhibit. Such results may then inform discussions about what is expected or desired in a given context, how SEL skillsets can be developed, and where to target supportive resources to students or classrooms identified as expressing particular needs. Institutional partners and students alike have found this developmental attractive. We expect it also holds increasing promise as assessment technology continues to develop.

New platforms and item formats, designed to overcome the limitations of classic approaches,

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enable the efficient deployment and study of innovative methods for measuring and providing useful feedback on SEL. Where they are augmented by appropriate curricular integration and professional development, such assessment tools have the potential to generate holistic depictions of the extent to which state education systems are meeting the evolving needs of their students and aid existing efforts to close gaps by encouraging targeted student development of SEL skills. ■

<sup>1</sup>See Angela Duckworth, *Grit* (New York, NY: Scribner Publishing, 2016); Paul Tough, *How Children Succeed* (New York, NY: Mariner Books, 2013); and Carol Dweck, *Mindset: How You Can Fulfill Your Potential* (London: Little, Brown Book Group, 2012). See also recent critiques, e.g., D. Engber, “Is ‘Grit’ Really the Key to Success?” *Slate* (May 8, 2016); J. Useem, “Is Grit Overrated?” *Atlantic* (May 2016); A. Kohn, “The Perils of ‘Growth Mindset’ Education: Why We’re Trying to Fix Our Kids When We Should Be Fixing the System,” *Salon* (August 16, 2015).

<sup>2</sup>Examples include Angela Duckworth, “Don’t Grade Schools on Grit,” *New York Times* (March 26, 2016) and Martin West, “Should Non-Cognitive Skills Be Included in School Accountability Systems? Preliminary Evidence from California’s CORE Districts,” Report (Washington, DC: Brookings Institution, March 17, 2016). California recently conducted a field test including an SEL measure within school-level accountability metrics.

<sup>3</sup>For example, see J. Blanden et al., “Explaining Intergenerational Income Persistence: Non-Cognitive Skills, Ability and Education,” (Bristol, UK: Centre for Market and Public Organization, University of Bristol, 2006); J.J. Heckman et al., “The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior,” *Journal of Labor Economics* 24 (July 3, 2006): 411–82; A.E. Poropat, “A Meta-Analysis of the Five-Factor Model of Personality and Academic Performance,” *Psychological Bulletin* 135, no. 2 (2009); M. O’Connell and H. Sheikh, “Non-Cognitive Abilities and Early School Dropout: Longitudinal Evidence from NELS,” *Educational Studies* 35, no. 4 (2009): 475–79; A. Casillas et al., “Predicting Early Academic Failure in High School from Prior Academic Achievement, Psychosocial Characteristics, and Behavior,” *Journal of Educational Psychology* 104, no. 2 (2012): 407–20. <sup>4</sup>Conference Board et al., “Are They Really Ready to Work?” (2006), <http://files.eric.ed.gov/fulltext/ED519465.pdf>; F. L. Oswald et al., “Developing a Biodata Measure and Situational Judgment Inventory as Predictors of College Student Performance,” *Journal of Applied Psychology* 89, no. 2 (2004): 187.

<sup>5</sup>Richard Rothstein et al., *Grading Education: Getting Accountability Right* (New York: Teachers College Press, 2008).

<sup>6</sup>See a recent special issue of the *Journal of Educational Psychology* 108, no. 3 (April 2016); J.A. Durlak et al., “The Impact of Enhancing Students’ Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions,” *Child Development* 82, no. 1 (2011): 405–32; J.A. Durlak et al., “A Meta-Analysis of After-School Programs That Seek to Promote Personal and Social Skills in Children and Adolescents,” *American Journal of Community Psychology* 45, no. 3-4 (2010): 294–309.

<sup>7</sup>Tim Kautz et al., “Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success,” *OECD Education Working Papers* no. 110 (Paris: OECD Publishing, 2014); Patrick Kyllonen et al., “Personality, Motivation, and College Readiness: A Prospectus for

Assessment and Development” ETS Research Report RR-14-06 (Princeton, NJ: ETS, 2014), <http://onlinelibrary.wiley.com/doi/10.1002/ets2.12004/epdf>; C.A. Farrington et al., “Teaching Adolescents to Become Learners: The Role of Noncognitive Factors in Shaping School Performance: A Critical Literature Review,” (Chicago: University of Chicago Consortium on Chicago School Research, 2012); J.W. Pellegrino and M.L. Hilton, eds., “Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century,” (Committee on Defining Deeper Learning and 21st Century Skills, National Research Council, 2012).

<sup>8</sup>American Psychological Association. “Top 20 Principles from Psychology for PreK-12 Teaching and Learning,” (2015).

<sup>9</sup>P. Carneiro et al., “The Impact of Early Cognitive and Non-Cognitive Skills on Later Outcomes” (London: Centre for the Economics of Education, 2007); F. Cunha et al., “Estimating the Technology of Cognitive and Noncognitive Skill Formation,” *Econometrica* 78, no. 3 (2010): 883–931; F. Cunha and J.J. Heckman, “Investing in Our Young People,” No. w16201 (Cambridge, MA: National Bureau of Economic Research, 2010); B.W. Roberts et al., “Patterns of Mean-Level Change in Personality Traits across the Life Course: A Meta-Analysis of Longitudinal Studies” *Psychological Bulletin* 132, no. 1 (2006): 1–25.

<sup>10</sup>See footnote 6.

<sup>11</sup>See E. Garcia, “Inequalities at the Starting Gate,” (Washington, DC: Economic Policy Institute, 2015), <http://www.epi.org/files/pdf/85032c.pdf>. Some portion of the differences observed in this study may be attributable to reference bias (i.e., systematic differences across contexts in the standards people use as the basis for their ratings). See also Richard Rothstein, “Class and Schools: Using Social, Economic, and Educational Reform to Close the Achievement Gap,” (Washington, DC: Economic Policy Institute, 2004); P.C. Kyllonen and J.P. Bertling, “Innovative Questionnaire Assessment Methods to Increase Cross-Country Comparability,” in Leslie Rutkowski et al., eds., *Handbook of International Large-scale Assessment: Background, Technical Issues, and Methods of Data Analysis*, (Boca Raton, FL: CRC Press, 2013).

<sup>12</sup>Clive Belfield et al., *The Economic Value of Social and Emotional Learning* (New York: Center for Benefit-Cost Studies in Education Teachers College, Columbia University, 2015).

<sup>13</sup>CASEL, “State Scan Scorecard Project,” (2015), [www.casel.org/](http://www.casel.org/).

<sup>14</sup>American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, “Standards for Educational and Psychological Testing” (Washington, DC: AERA, 2014).

<sup>15</sup>National Research Council, “Assessing 21st Century Skills: Summary of a Workshop” (Washington, DC: National Academies Press, 2011); A.A. Lipnevich et al., “Assessing Noncognitive Constructs in Education: A Review of Traditional and Innovative Approaches,” in D. Saklofske and V. Schwean, eds., *Oxford Handbook of Psychological Assessment of Children and Adolescents* (Cambridge, MA: Oxford University Press, 2013); Jim Soland et al., “Measuring 21st Century Competencies: Guidance for Educators,” (RAND Corporation, 2013), <http://asiasociety.org/files/gcen-measuring21cskills.pdf>.

<sup>16</sup>E.R. Lai and M. Viering, “Assessing 21st Century Skills: Integrating Research Findings,” presented at the annual meeting of the National Council on Measurement in Education, Vancouver, B.C., Canada, 2012.

<sup>17</sup>American Educational Research Association et al., “Standards for Educational and Psychological Testing”; B.M. Stecher and L.S. Hamilton, “Measuring Hard-to-Measure Student Competencies: A Research and Development Plan” (Santa Monica, CA: RAND, 2014).

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