# Supporting Students' College Success:
The Role of Assessment of Intrapersonal and Interpersonal Competencies

Educational attainment—the number of years a person spends in school—strongly predicts adult earnings, as well as health and civic engagement. Yet relative to other developed nations, educational attainment in the United States is lagging, with young Americans who previously led the world in completing postsecondary degrees now falling behind their global peers.

Researchers and policy makers seeking to increase college graduation rates are exploring whether abilities that go beyond cognitive skills can support students' persistence and success. These abilities include intrapersonal competencies used in managing one's behavior to achieve goals—for example, self-regulation and a growth mindset—and interpersonal competencies used in expressing one's ideas and responding to messages from others, such as teamwork and communication skills. A committee of the National Academies of Sciences, Engineering, and Medicine was asked to identify interpersonal and intrapersonal competencies that are related to undergraduate persistence and success (especially in fields of science, technology, engineering, and mathematics—STEM) and to examine how to assess these competencies.

The committee's report, *Supporting Students' College Success: The Role of Assessment of Intrapersonal and Interpersonal Competencies* (2017), identifies promising competencies, offers guidance on assessing them, and cautions against high-stakes use of currently available assessments. The report also recommends that higher education institutions and researchers partner to facilitate further research on the identified competencies.

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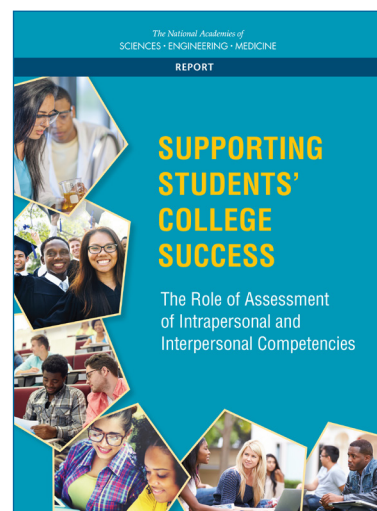
FRAMING THE STUDY

In conducting its study, the committee defined "competency" broadly, examining research on a range of attitudes, behaviors, beliefs, and dispositions, to identify competencies related to undergraduate persistence and success. The committee focused on malleable competencies that higher education institutions could enhance to increase their students' success.

Diversity and inclusion were central themes of the study. The committee gave special attention to research on student groups that have historically experienced lower college persistence and success than other groups. These include three racial/ethnic minority groups (black, Hispanic, and American Indian students), first-generation college students, students from low-income families, and women in certain STEM disciplines.

IDENTIFYING COMPETENCIES RELATED TO COLLEGE SUCCESS

There has been relatively limited research to date on potential relationships between various intra- and interpersonal competencies and undergraduates' persistence and success. Major gaps exist in the research on: (a) how interpersonal competencies might be related to college success; (b) the possible role of intra- and interpersonal competencies in community college students' persistence and achievement; and (c) how intra- and interpersonal competencies might be related to success in STEM majors. As a result, the committee identified no interpersonal competencies showing evidence of a relationship to college success. It recommends investing in research to address all three gaps.

Correlational research suggests that conscientiousness—the tendency to be self-controlled, responsible to others and achievement-oriented—is a robust predictor of college success. However, conscientiousness is an enduring personality trait that is difficult to change through intervention. Nevertheless, a few interventions have successfully developed behaviors related to conscientiousness, such as goal-setting and time management.

The committee identified eight intrapersonal competencies that research suggests are malleable and related to college success. The first three show the most promising evidence:

- *A sense of belonging:* a student's sense that he or she belongs at a college, fits in well, and is socially integrated.
- *A growth mindset:* a student's belief that his or her own intelligence is not a fixed entity, but a malleable quality that can grow and improve.
- *Utility goals and values:* personal goals and values that a student perceives to be directly linked to the achievement of a future, desired end.
- *Behaviors related to conscientiousness:* behaviors related to self-control, hard work, persistence, and achievement orientation.
- *Academic self-efficacy:* a student's belief that he or she can succeed in academic tasks.
- *Intrinsic goals and interest:* personal goals that a student experiences as rewarding in and of themselves, linked to strong interest.
- *Prosocial goals and values:* the desire to promote the well-being or development of other people or of domains that transcend the self.
- *Positive future self:* a positive image or personal narrative constructed by a student to represent what kind of person he or she will be in the future.

Interestingly, brief, low-cost interventions that helped students to develop a sense of belonging, growth mindset, and utility goals and values sometimes generated the largest benefits for the underrepresented student groups who are most at risk for academic failure. For example, an intervention designed to increase students' sense of belonging informed first-year students that upperclassmen had worried about being accepted but that those concerns had lessened with time; the first-year students then wrote an essay and gave a speech on this same theme, which raised black students' grades. In an intervention designed to strengthen students' utility values, introductory biology students completed three brief essays explaining why specific course material was directly relevant or useful to their own lives. All students who received the intervention showed improvement in course grades, and the largest improvement was for underrepresented minority students who were also first-generation students.

The committee recommends that federal agencies and foundations support rigorous re-

search, in partnership with higher education institutions, to understand better the three most-promising competencies and their relationship to college success. Studies focused on supporting the college success of underrepresented student groups should be given priority.

ASSESSING COMPETENCIES

Having identified promising competencies, the committee considered how college and university stakeholders—such as faculty, administrators, and guidance staff—could use assessments of the competencies. High-quality assessments could potentially support student success in many ways—for example, by helping institutions and researchers measure whether interventions are working, and by helping institutions to identify students who would benefit from particular support programs or services. The committee found that assessments are more likely to support student success when they are initiated for improvement purposes rather than when they are used to hold students or programs accountable. In addition, assessment-based improvement efforts are more likely to succeed when they involve institutional stakeholders at multiple levels rather than when stakeholders act alone. Some stakeholders will require support and training to effectively select, interpret, and use assessment data to improve their students' college success.

Assessments of intra- and interpersonal competencies should meet the same high standards as those of cognitive competencies. These include reliability and precision; validity, the extent to which an assessment measures what is intended and provides sound information for a given purpose; and fairness, the extent to which an assessment provides all intended examinees the same unencumbered opportunity to demonstrate their competency and carries the same meaning for all students. However, many current assessments of the eight identified competencies fall short in showing evidence related to these three standards and predominantly use self-report surveys. Such surveys have well-known limitations, such as being subject to social desirability bias (answering in ways that show oneself in the best light), and to other forms of response bias (for example, differenc-

es in how individuals interpret the meaning of rating scales).

Given these limitations, the committee recommends that institutions not make high-stakes decisions carrying serious consequences for individuals (e.g., admissions decisions) based solely on current assessments of the eight identified competencies. Whether for high- or lower-stakes purposes, the committee recommended that higher education assessment users consider and look for evidence of reliability, validity and fairness when they develop or select assessments.

DEVELOPING FUTURE ASSESSMENTS

The report outlines a well-recognized, systematic process for developing and validating high-quality assessments. This process begins with a clear definition of what is to be measured, coupled with a specification of the purpose of the assessment and of for whom the assessment is intended. The process requires attention to evidence of reliability, validity, and fairness throughout the development process, including item development, field testing, and validation.

The committee recommends research on innovative assessment approaches that can mitigate the limitations of existing measures. For example, forced choice strategies that ask students to choose between competing positive (or competing negative) options can counter the tendency to respond in socially desirable ways. Digital tools can provide unobtrusive ways to capture student behavior that reflects various competencies.

OTHER COMPETENCIES

Many colleges and universities have committed to advancing a range of student outcomes, including the intra- and interpersonal competencies of ethics, lifelong learning, intercultural competence, citizenship, communication, and teamwork. Yet the committee found no evidence of a relationship between these competencies, which are expected to be valuable for all college graduates, and students' actual persistence or success during college. Further research is needed to understand these competencies and how to assess them.

COMMITTEE ON ASSESSING INTRAPERSONAL AND INTERPERSONAL COMPETENCIES

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