The National Academies of
SCIENCES · ENGINEERING · MEDICINE

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

Symposium at the Association of American Colleges

and Universities Annual Conference

Washington, DC

January 26, 2018

Symposium Overview

- **Introductions:** Margaret Hilton, NAS, Study Director, Committee on Assessing Intrapersonal and Interpersonal Competencies (5 minutes)

- **Competencies for College Success**: K. Ann Renninger, Swarthmore College, Committee Member (10 minutes)

- **The Importance of College Contexts**: Tabbye Chavous, University of Michigan, Committee Member (10 minutes)

- **Response from a Liberal Arts College:** Susan R. Singer, Rollins College (10 minutes)

- **Small-Group Discussions** (30 minutes)

- **Reporting Out:** Margaret Hilton, moderator (10 minutes)

Study Overview

Margaret Hilton, the National Academies
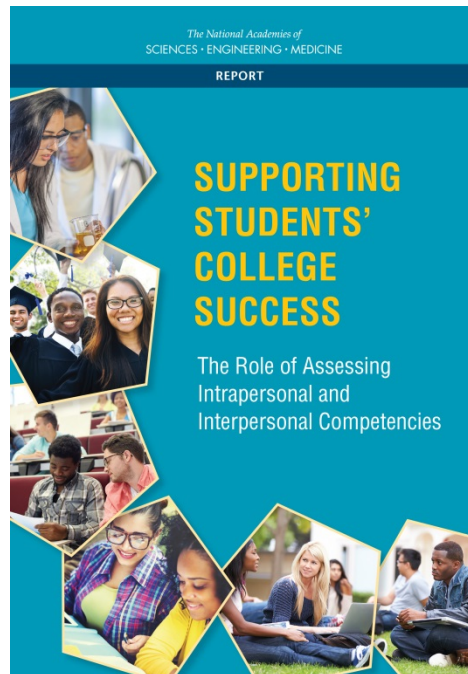
Study Overview

- Sponsored by NSF Division of Undergraduate Education

- Dissemination support from the William and Flora Hewlett Foundation

Study Committee

Joan Herman *(Chair),* CRESST, University of California, Los Angeles

David Bills, University of Iowa

Corbin Campbell, Columbia University

Tabbye Chavous, University of Michigan

Greg Duncan, University of California, Irvine

Sylvia Hurtado, University of California, Los Angeles

Patrick Kyllonen, Educational Testing Service

Dan McAdams, Northwestern University

Frederick Oswald, Rice University

Jonathan Plucker, Johns Hopkins University

K. Ann Renninger, Swarthmore College

Brian Stecher, RAND Corporation

Study Charge

- Examine how to assess interpersonal (e.g., teamwork, communication skills) and intrapersonal (e.g., academic mindset, grit) competencies of college students.

- Identify a range of competencies that are related to persistence and success in college (especially in STEM) and that can be enhanced through intervention.

- Establish priorities for development and use of assessments of the identified competencies.

Framing the Study

- Defined competency broadly to include attitudes, behaviors, beliefs, and dispositions

- Focused on competencies related to success *in* college, as measured by retention, GPA, graduation, but also considered competencies identified as desired outcomes *of* college

- Examined assessment methods, less attention to specific instruments

- Special attention to underrepresented student groups that have experienced lower college success than other groups: Low SES, first generation, black, Hispanic, and American Indian.

Competencies That Research Suggests Are Related to College Success

K. Ann Renninger, Swarthmore College

The Problem of Limited Research

Recommendation 1: Federal agencies and foundations should invest in research examining how various competencies may be related to college success. These investments should address gaps in the research base, examining how intra- and interpersonal competencies may be related to student success in:

- 4-year colleges;

- community colleges; and

-2- and 4-year STEM programs and majors.

Competencies for College Success

- Defined competency broadly: interpersonal and intrapersonal

- Reviewed relevant research and best practices; commissioned 2 data analyses.

- Identified a set of competencies based on correlational and random assignment intervention studies.

Eight Identified Competencies

- *Sense of belonging*

- *Growth mindset*

- *Utility goals and values*

- *Behaviors related to conscientiousness*

- *Intrinsic goals and interest*

- *Academic self-efficacy*

- *Prosocial goals and values*

- *Positive future self*

Three Promising Competencies

*Conclusion: The limited intervention studies conducted to date have generated promising evidence that the competencies of **sense of belonging, growth mindset, and utility goals and values** are related to college success and are malleable in response to interventions.*
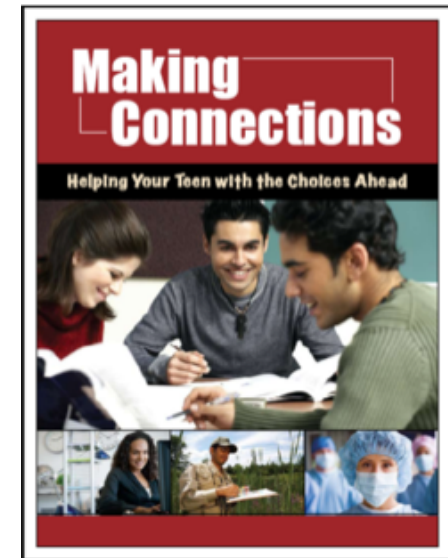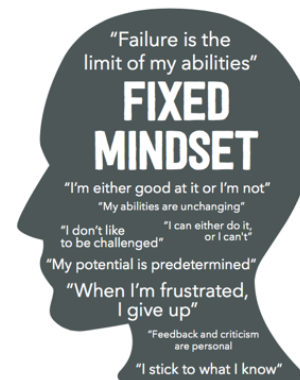
Need for Further Research

- *Interventions aimed at developing sense of belonging, growth mindset, and utility goals and values are generally low cost, and have sometimes generated the largest benefits for underrepresented student groups at risk for academic failure. This evidence is limited and recent; further research is needed to replicate and extend it.*

Research Recommended

Recommendation 2: Invest in random-assignment interventions and research employing other methods to understand better how the competencies identified above are related to college success. Prioritize research on supporting the success of underrepresented student groups.

Recommendation 3: Colleges and universities should support the research proposed in Recommendation 2 by facilitating random-assignment interventions, thereby gaining valuable information about their students and building the knowledge base on effective interventions.

Study Conclusion:

Only limited research has been conducted to date on the potential relationships between various intra- and interpersonal competencies and students' college success. There are major gaps in the research evidence:

– Little research is available on the possible relationship between interpersonal competencies and students' college success.

– The available research has been conducted almost entirely in 4-year institutions; very little experimental evidence is available on the possible relationship between intra-and interpersonal competencies and students' success in community colleges.

– There is a paucity of evidence on the possible relationships between intra- and interpersonal competencies and the success of students intending to major in STEM fields.

Question

How does your own work intersect with the recommendation for further research on competencies?

The Importance of College Contexts in the Development of the Identified Competencies among First Generation and Under-Represented Minority Students

Tabbye Chavous, University of Michigan

Diversity and Inclusion were Central Themes in the Report

- – growing diversity of the undergraduate student population, and

- – charge to focus on persistence and success especially in STEM.

- Special attention given to student groups who have historically experienced lower persistence and success in postsecondary education generally, and STEM more specifically.

- Competencies
  - Some evidence of a relationship to persistence and success
  - Malleability

- Developmental process
  - ongoing interactions with the environment (e.g. other people, classroom tasks, disciplinary-based extracurricular activities)
  - May enable or constrain

- In the context of college environment, all students are working to understand:
  - Who am I?
  - Whom do I want to become?
- Their developing identity is linked to their experience in college.

Sensitivity to Context and Subgroup Effects

Conclusion: Certain competencies develop and function differently for different groups and within different cultural and educational contexts. For example, although a strong sense of belonging in college is related to success among underrepresented student groups, members of these groups may find it difficult to develop this competency if they experience campus environments that are discriminatory or unwelcoming.

Examples of data on sense of belonging:

- Student experience of college context norms can influence engagement and persistence; sense of belonging and connectedness was positively related to motivation (Byrd & Chavous, 2009, 2011)

- Sense of belonging may be predictive of persistence and achievement for underrepresented minority students in STEM (Darling, et al., 2008)

Context similarly contributes to students'

- *Behaviors related to conscientiousness*

- *Academic self-efficacy*

- *Growth mindset*

- *Utility goals and values*

- *Intrinsic goals and interest*

- *Prosocial goals and values*

- *Positive future self*

Attention to College Environments

Recommendation 4: To help reduce disparities in college success among student groups, institutions of higher education should evaluate and improve their social and learning environments to support the development of the eight identified competencies, especially among underrepresented student groups.

Questions for Discussion

- What are the next steps for research and practice in implementing the recommendation:

    -Colleges and universities evaluate and improve their social and learning environments to support the development of the 8 identified competencies, especially among underrepresented student groups?

- What are the challenges and affordances for large universities in carrying out this recommendation?

Response from a Liberal Arts College Perspective

Role of Assessment of Intrapersonal and Interpersonal Competencies in Supporting a Holistic Approach to Undergraduate Education

Susan Singer, Rollins College

Mission Centered Context

Rollins College educates students for global citizenship and responsible leadership, empowering graduates to pursue meaningful lives and productive careers

- Culture of curiosity, knowledge generation, and iterative improvement

- Culture of connection for students, faculty, and staff
  - Retention team led by VPs for Academic Affairs, Enrollment, & Student Affairs
  - Connected, developmental general education program
  - Connected, developmental advising (multiple mentor model)

Structural Supports

Informed and improved by ongoing assessment

- "Mission Center" - integration of the college experience in one renovated building
  - Career and life planning
  - Postgraduate studies advising
    - Pre-health, pre-law, fellowships
  - Student & faculty collaborative research
  - Community engagement, immersions, and social innovation hub
  - Center for Global Initiatives
  - Student radio station plus media
 - Environmental sustainability

Structural Supports
Informed and improved by ongoing assessment

- "One stop shop" – registrar, bursar, financial aid, advising

- Endeavor Center for Faculty Development

- Data analytics – next generation Institutional Research and Institutional Effectiveness

Integrate assessment for improvement

- "Student Success" analytics
  - Tactical, predictive analytics
  - Integration of silo'd data
- Integrated assessment
  - Academic Affairs, Student Affairs, and Enrollment coordinated decisions
  - NSSE, CIRP
  - VALUE rubrics – gen ed, student affairs
  - STEM retention integrating intra- and interpersonal competency assessments
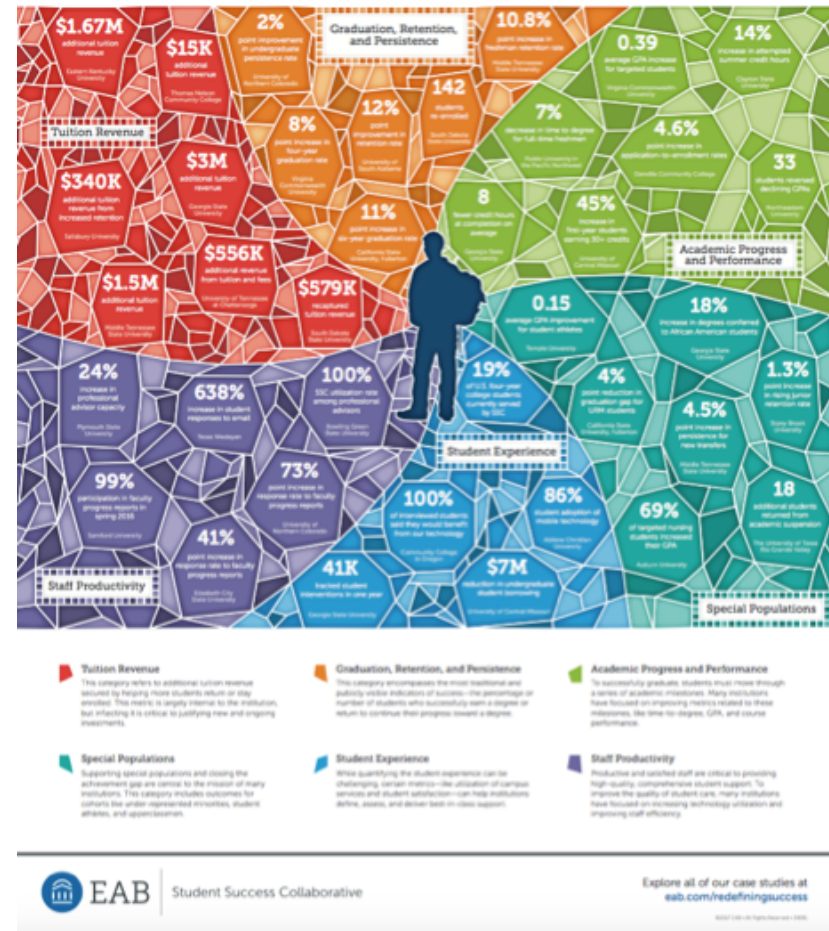
Implications of *Supporting Students' College Success: Assessment of Intrapersonal and Interpersonal Competencies*

- # Selection and placement of individual students
  - ## Precollege cohort (Florida's Take Stock in Children) plus transfer cohort
    - "Grit" assessment for 8th graders (concern)
    - Sense of belonging, academic self-efficacy, and a growth mindset.
  - ## Conscientiousness
    - "…broad personality trait of conscientiousness. Although an individual's relative standing on conscientiousness tends to be highly stable over time, some interventions have successfully targeted task management and other specific manifestations of this trait" (p. 14, focus on behaviors which are malleable)
    - Impact of measurable traits that may not be malleable vs behaviors which are malleable
  - ## Equity and access issue

Implications of *Supporting Students' College Success: Assessment of Intrapersonal and Interpersonal Competencies*

- Formative improvement of local educational processes, practices, and programs
  - Opportunities in gen ed and multiple mentor model
  - Linking curricular and co-curricular goals
- Research and evaluation supporting knowledge generation
  - Integrated supports
    - 20% investment that provides 80% success
  - Equity and access – rationing high quality assignments?
  - Benchmarking with peer institutions and national outcomes
  - Integrating a range of data for a clearer picture
  - Institutional positioning about value added in terms of learning outcomes
- Accountability
  - SACS regional accreditation

Growing a Culture of Assessment

- Moving from data to action (iterative improvement) is challenging
  - Identifying interventions
  - Supporting faculty development
- Paucity of valid, reliable, fair instruments
- Concerns about fairness and inclusion
- Tension between flexibility in adopting better instruments and baselining and following change over time
- Focusing on competencies tied to mission and long term student success
- Opportunity for holistic approach to education

Small Group Discussions

Margaret Hilton, Moderator

Question 1: How have you/or might you assess competencies in your own work?

Question 2: How do you see the development and assessment of measures of competencies moving the equity agenda in higher education forward?

Question 3: What role can you play in implementing the following recommendation?

-Colleges and universities should evaluate and improve their social and learning environments to support the development of the 8 identified competencies, especially among underrepresented student groups

Question 4:   How does your work intersect with the recommendation for further research on the 8 identified competencies?

Question 5: What role can you/can higher education researchers play in developing and validating measures of interpersonal and interpersonal competencies?

Reporting Out

- What comments emerged from your discussions?

- What questions emerged for the speakers?

- What next steps do you suggest?

Read the Full Report

https://www.nap.edu/collegesuccess