Non-cognitive Assessment: Tying the FYE Classroom to Student Success

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Agenda

• The importance of non-cognitive skills in higher education and student success courses
  – Ross Markle, Educational Testing Services

• Data: non-cognitive skills of Santa Monica College Students
  – Hannah Lawler, Santa Monica College

• Using non-cognitive assessment results at the individual and institutional level
  – Brenda Benson, Santa Monica College
Overview: Non-cognitive skills and assessment
Where we lose students

Course Placement:
• Students face a long, complex sequence of developmental courses.

Early Academic Success
• Students lack the effective behaviors (organization, study skills) that are needed to succeed in college-level courses.

Persistence Over Time
• Without well-developed and aligned goals, self-management skills, and social connections, students may fail to persist to a degree.
What are noncognitive skills?

Factors outside of “academic ability” or “academic intelligence” that contribute to or are part of student learning.

Conscientiousness

Metacognition

Social Support

Teamwork

Self-Efficacy

Response to Stress

Institutional Commitment

Goal Setting

Study Skills

Motivation

Test Taking Strategies
We already care about this: *Synthesizing mission statements from 35 universities*

- Knowledge, learning, mastery of general principles
- Continuous learning, intellectual interest and curiosity
- Artistic cultural appreciation and curiosity
- Multicultural tolerance and appreciation
- Interpersonal skills
- Leadership
- Social responsibility, citizenship and involvement
- Physical and psychological health
- Career orientation
- Adaptability and life skills
- Perseverance
- Ethics and integrity

Schmitt, Oswald, Kim, Imus, Drzakowski, Friede, & Shivpuri (2007); Oswald, Schmitt, Kim, Ramsay, & Gillespie (2004).
Alignment between FYE and Noncognitive factors

**Foster Academic Success**
- Adapt and apply appropriate academic strategies to their courses and learning experiences.
- Demonstrate how to effectively evaluate information sources and utilize University libraries and information systems for academic inquiry.
- Recognize the purpose and value of academic integrity and describe the key themes related to the Honor Code at the University of South Carolina.
- Use written and oral communication to discover, develop, and articulate ideas and viewpoints.
- Identify and apply strategies to effectively manage time and priorities.
- Identify relevant academic policies, processes, and procedures related to advising, course planning, and major exploration.

**Help Students Discover and Connect with The University of South Carolina**
- Identify appropriate campus resources and opportunities that contribute to their educational experience, goals, and campus engagement.
- Develop and apply skills that contribute to building positive relationships with peers, staff and faculty.
- Describe what it means to be a Carolinian in context of the history, traditions, and culture of the University.

**Prepare Students for Responsible Lives in a Diverse, Interconnected, and Changing World**
- Examine how their background and experiences impact their values and assumptions and explain the influence these have on their relationships with others.
- Describe concepts of diversity and recognize diverse perspectives.
- Describe and demonstrate principles of responsible citizenship within and beyond the campus community.
- Describe processes, strategies, and resources, and explain the implications of their decisions, related to their overall wellness.

*Source: University of South Carolina UNV 101 Course Learning Outcomes http://www.sc.edu/univ101/aboutus/goals.html*
<table>
<thead>
<tr>
<th>Construct</th>
<th>$r_{GPA}$</th>
<th>$r_{retention}$</th>
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</thead>
<tbody>
<tr>
<td>Academic Skills</td>
<td>0.129</td>
<td>0.298</td>
</tr>
<tr>
<td>Academic Goals</td>
<td>0.155</td>
<td>0.210</td>
</tr>
<tr>
<td>Academic Self-Efficacy</td>
<td>0.378</td>
<td>0.257</td>
</tr>
<tr>
<td>Institutional Commitment</td>
<td>0.108</td>
<td>0.204</td>
</tr>
<tr>
<td>Social Support</td>
<td>0.096</td>
<td>0.199</td>
</tr>
<tr>
<td>SES</td>
<td>0.155</td>
<td>0.173</td>
</tr>
<tr>
<td>ACT/SAT Scores</td>
<td>0.376</td>
<td>0.079</td>
</tr>
</tbody>
</table>

Robbins, et al. (2004) meta-analytic correlations with retention, GPA
### Achievement, Behavior, and Success in Math Courses

<table>
<thead>
<tr>
<th>Math Readiness</th>
<th>Effort Level (participation, attendance, complete assignments)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>High</td>
<td>92%</td>
</tr>
<tr>
<td>Medium</td>
<td>86%</td>
</tr>
<tr>
<td>Low</td>
<td>74%</td>
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</tbody>
</table>

A holistic assessment solution

- Targets students between pre- and early enrollment (post-admissions)
- Inclusion of both cognitive and noncognitive factors
- Alignment between assessment and institutional practices

- Added value:
  - Respects the whole student (examines cognitive and noncognitive factors)
  - Focuses on the unique characteristics of each student
  - Focuses on factors educators can control such as motivation, social connectedness, as opposed to socioeconomic, situational factors
<table>
<thead>
<tr>
<th>General Skills</th>
<th>Subskills</th>
<th>Definition</th>
<th>Example Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Skills</strong></td>
<td>Tools and strategies for academic success</td>
<td><em>Organization</em></td>
<td>Strategies for organizing work and time.</td>
</tr>
<tr>
<td><strong>Meeting Class Expectations</strong></td>
<td>Doing what’s expected to meet the requirements of your course including assignments and in-class behaviors.</td>
<td></td>
<td>I attend almost all of my classes. I complete the reading that is assigned to me.</td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
<td>Active pursuit toward an academic goal.</td>
<td><em>Commitment to College Goals</em></td>
<td>Perceived value and determination to succeed in and complete college.</td>
</tr>
<tr>
<td><strong>Institutional Commitment</strong></td>
<td>Attachment to and positive evaluations of the school.</td>
<td></td>
<td>This is the right school for me. I’m proud to say I attend this school.</td>
</tr>
<tr>
<td><strong>Self-Management</strong></td>
<td>Reactions to academic and daily stress</td>
<td><em>Sensitivity to Stress</em></td>
<td>Tendency to feel frustrated, discouraged, or upset when under pressure or burdened by demands.</td>
</tr>
<tr>
<td><strong>Academic Self-Efficacy</strong></td>
<td>Belief in one’s ability to perform and achieve in an academic setting.</td>
<td></td>
<td>I'm confident that I will succeed in my courses this semester. I can do well in college if I apply myself.</td>
</tr>
<tr>
<td><strong>Test Anxiety</strong></td>
<td>General reactions to test-taking experiences, including negative thoughts and feelings (e.g., worry, dread).</td>
<td></td>
<td>When taking a test, I think about what happens if I don't do well. Before a test, my stomach gets upset.</td>
</tr>
<tr>
<td><strong>Social Support</strong></td>
<td>Connecting with people and students resources for success</td>
<td><em>Connectedness</em></td>
<td>A general sense of belonging and engagement.</td>
</tr>
<tr>
<td><strong>Institutional Support</strong></td>
<td>Attitudes about and tendency to seek help from established resources.</td>
<td></td>
<td>If I don't understand something in class, I ask the instructor for help. I know how to find out what's expected of me in classes.</td>
</tr>
<tr>
<td><strong>Barriers to Success</strong></td>
<td>Financial pressures, family responsibilities, conflicting work schedules, and limited institutional knowledge.</td>
<td></td>
<td>Family pressures make it hard for me to commit to school. People close to me support me going to college.</td>
</tr>
</tbody>
</table>
Creating Predictive Indices: National Sample

Source:
**Santa Monica College**

**Domain Scores:** Four general areas of student strengths and weaknesses. Scores are presented normatively.

**Success Indices:** Separate indices for both classroom and enrollment success. Based on background, cognitive and psycho-social information and supported by statistical relationships with success.

**Background Information:** Communicate key student information from both SuccessNavigator® and SIS to faculty/advisor.

**Action Plans:** Suggested interaction with programs and services on campus.

**Feedback:** Determine by more specific “facet” scores (see next page).
The pages that follow will provide subscores within each domain to explain them more thoroughly.
Levels of Success Navigator Data Examined by Santa Monica College (SMC)
Levels of Success Navigator Data Examined by SMC

**College**
- Determine whether non-cognitive skills positively predict student success

**Program (FYE)**
- Identify students to target for interventions

**Classroom (Faculty/Counselor)**
- Inform teaching strategies, assignments, and activities
### Who Takes the SuccessNavigator Assessment at SMC? (Fall 2014)

<table>
<thead>
<tr>
<th></th>
<th>Total Population (N = 30,159)</th>
<th>First-time Freshmen (N = 5736)</th>
<th>Completed SuccessNavigator* (N = 1444)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>52.5%</td>
<td>50.5%</td>
<td>57.1%</td>
</tr>
<tr>
<td><strong>Ethnicity/race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>14.1%</td>
<td>14.0%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Black</td>
<td>9.1%</td>
<td>8.9%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>38.5%</td>
<td>44.2%</td>
<td>65.0%</td>
</tr>
<tr>
<td>White</td>
<td>26.7%</td>
<td>23.3%</td>
<td>9.5%</td>
</tr>
<tr>
<td><strong>Average age</strong></td>
<td>24.1</td>
<td>19.3</td>
<td>19.7</td>
</tr>
<tr>
<td><strong>First-time freshmen</strong></td>
<td>19.0%</td>
<td>NA</td>
<td>56.9%</td>
</tr>
<tr>
<td><strong>First-generation status</strong></td>
<td>55.3%</td>
<td>58.2%</td>
<td>47.8%</td>
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</table>

*COUNS 20 (FYE course), Adelante/Black Collegians/CEUS/TRIO program participants*
Do non-cognitive skills predict student success at SMC?

<table>
<thead>
<tr>
<th>Model</th>
<th>GPA R²</th>
<th>GPA Change Statistics</th>
<th>GPA Sig.</th>
<th>Credit Success R²</th>
<th>Change Statistics</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td>1. Gender, Race/Ethnicity</td>
<td>.031</td>
<td>.031</td>
<td>.000</td>
<td>.018</td>
<td>.018</td>
<td>.001</td>
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<tr>
<td>2. Parental Education</td>
<td>.039</td>
<td>.008</td>
<td>.001</td>
<td>.022</td>
<td>.003</td>
<td>.027</td>
</tr>
<tr>
<td>3. Test Score</td>
<td>.060</td>
<td>.021</td>
<td>.000</td>
<td>.075</td>
<td>.054</td>
<td>.000</td>
</tr>
<tr>
<td>4. H.S. GPA</td>
<td>.096</td>
<td>.036</td>
<td>.000</td>
<td>.079</td>
<td>.004</td>
<td>.010</td>
</tr>
<tr>
<td>5. SuccessNavigator Scores</td>
<td>.131</td>
<td>.035</td>
<td>.000</td>
<td>.098</td>
<td>.019</td>
<td>.001</td>
</tr>
</tbody>
</table>
Which students would benefit most from FYE interventions?

Number of "Low" Scores

- Zero: 28.3%
- One: 34.3%
- Two: 20.6%
- Three: 12.5%
- Four: 4.4%
Using Classroom Profiles to Tailor Teaching Strategies, Assignments, and Activities

Section #1234 Profile

Standardized Scores:
Average: 100
Std. Dev: 15
Using Non-cognitive Assessment Results at the Institutional and Individual Level
Santa Monica College

- One of 112 community colleges in California
- Enrollment ≈ 33,000
- Extremely diverse campus community – draws from greater Los Angeles, not just Santa Monica
- #1 transfer institution to the University of California and California State University systems for more than 20 years
- Student Affairs and Academic Affairs – Equal Partners
- Student Success Act of 2012 and new SSSP Funding Stream
“GRIT” = Growth, Resilience, Integrity and Tenacity

**Development of GRIT**

“To develop a plan for defining, organizing and institutionalizing the GRIT (Growth, Resilience, Integrity and Tenacity) strategic initiative. This initiative will facilitate student achievement through a college-wide focus on non-cognitive skills and on supporting students’ aspirations for their futures.”

**Assessment of GRIT**

“To develop a plan for how to assess the strategic initiative GRIT, with a focus on assessing students’ acquisition of non-cognitive skills.”

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**Two 2012-2013 SMC Institutional Objectives**
Assessment of GRIT

– The SuccessNavigator™ Assessment

– Administered to all students enrolled in Couns 20, a 3 unit, UC transferable Student Success Seminar, as well as participants in 3 special counseling programs

– Over 1400 participants/respondents in fall 2014

– Psychosocial scores revealed to Couns 20 professors as “class profiles”

– Methodology allowed individual Couns 20 faculty to tailor course content to emphasize certain non-cognitive skills

– GRIT counselor hired to work with students individually and guest lecture in Couns 20 classes

– Students with one or more “low” scores invited to participate in special coaching program to be launched spring 2015
Concluding Thoughts

• Noncognitive skills are gaining widespread understanding and acceptance as a result of our “Got GRIT?” campaign

• Buy-in from faculty is key to success

• The SuccessNavigator™ assessment is a useful tool in helping students understand their own noncognitive skills and available institutional resources to help them achieve success