Research around non-cognitive skills, our curriculum, and college success

What is some general research around non-cognitive skills?

- Research conducted by the University of Chicago Consortium on Chicago School Research tells us that “in addition to content knowledge and academic skills, students must develop sets of behaviors, skills, attitudes and strategies that are crucial to academic performance in their classes, but may not be reflected in their scores on cognitive tests.” These additional skills are widely referred to in the field as non-cognitive skills.
- Nobel prize-winning economist James Heckman (Heckman & Rubinstein 2001) popularized the term noncognitive and argues that beyond academic knowledge and technical skills, noncognitive factors such as motivation, time management, and self-regulation are critical for later life outcomes, including success in the labor market.”
- Psychologist Lawrence Barsalou argues that ‘Research in human cognition has moved away from the idea of cognition as being isolated within an individual brain to depending on the contexts in which it exists, such as perception [which leads to action], affect, and sociocultural systems” (Barsalou, 2010, p. 325).
- Therefore if we know that non-cognitive skill development is influenced by the strategies with which students are equipped to handle different situations, we can put support systems in place, in this case our curriculum and mentors that will help our students develop these skills which will be positively expressed through their academic behaviors and performance.

How does iMentor help students become truly college ready?

- Academic preparation is only one part of college readiness. To be truly ready, students must also acquire non-cognitive skills and college knowledge.
- In many of our schools the responsibility for non-academic support/supporting students acquisition of college knowledge with the college process falls on a single college counselor. This ratio is as large as 459:1 in some cases (American School Counselor Association, June 2012) which is a daunting task.
- If this statistic is daunting then even more pressing is the fact that the acquisition of non-college skills is not directly assigned to any role within the school staff or administration. Students often acquire these skills through exposure to different spaces or resources that our students (low income, first-generation) may not necessarily have the access to.
- The iMentor model, in leveraging the power of our 1-to-1 mentoring relationships through a targeted and college-success focused curriculum, is uniquely positioned to work in concert with existing school supports to better prepare our students to be college ready.
What non-cognitive skills does the iMentor curriculum cover?

For full definitions click HERE (learn.imentor.org/help/what-non-cognitive-skills-does-the-imentor-program-develop) . As a review, they are:

- Social capital skills
- Utilizing a growth mindset
- Perseverance
- Critical thinking skills
- Help-seeking and self-advocacy
- Optimism & excitement about the future

How did we land on these 6 non-cognitive skills?

iMentor looked at which ones had evidenced-based support for positively impacting college success but which schools struggled to execute on. From there, we looked at where our program was best positioned to provide support through our mentoring relationships. The six non-cognitive skills shown above represent the result of that process/work.

How do we introduce these skills and develop them in our mentees?

Each non-cognitive skill is explicitly introduced into the curriculum in the early stages, and more implicitly once the relationship has developed.

Each year/grade of the curriculum is organized in a sequence of 10–12 checklist goals. Each goal consists of 3–5 email prompts and one in-person event. It is within these checklist goals that the non-cognitive skill is embedded.

Example

In their 2005 study, Byrd and McDonald found that “For students who participated in [the] study, the ability to self-advocate was critical for an ability to navigate the college system.” Self-advocacy is especially important for first generation college students who may lack the background knowledge of the college system.
Learn the Importance of Self-Promotion and Using Support Networks is a Checklist goal within the iMentor Curriculum. It reinforces the non-cognitive skill of help-seeking and self-advocacy. As mentees learn to promote themselves through interviews and resumes, this will require mentees asking for help and being able to identify and advocate for what they need.

<table>
<thead>
<tr>
<th>Checklist Goal</th>
<th>Key Takeaways</th>
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<tbody>
<tr>
<td>Learn the Importance of Self-Promotion and Using Support Networks</td>
<td>Mentees understand the timeline and importance of standardized tests and learn some studying strategies for doing well on them.</td>
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<th>Prompts and Events</th>
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<tr>
<td>Make It Hot … Self-Promotion 101</td>
<td>Mentees learn what a personal brand is and how it relates to presenting yourself to colleges.</td>
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<tr>
<td>Image and Professionalism: Making the Connection</td>
<td>Mentees learn about the connection between how you present yourself and professional success.</td>
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<tr>
<td>You Need to Know Me Because …</td>
<td>Mentees identify their unique strengths as a step to building a personal brand (college-going identity).</td>
</tr>
<tr>
<td>Event: Marketing ME</td>
<td>Mentees practice self-promotion through role playing activities in preparation for summer and college opportunities.</td>
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</tbody>
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**How do we evaluate if these non-cognitive skills are being developed?**

We currently assess non-cognitive understanding and development of our mentees through surveys administered throughout the mentees’ participation in iMentor. As a check of understanding, we ask mentees to identify how well they understand the concept of each non-cognitive skill that we focus on through scenario-based questions. In order to assess development of non-cognitive skills, iMentor uses multiple-question scales that have been tested with adolescents and shown to accurately measure the specific non-cognitive skill. Each year, iMentor assesses growth by asking students to complete each scale related to the seven non-cognitive skills that we target in our curriculum at the beginning and end of each program year.