

School-Based Interventions: Targeting Social and Emotional Skills to Increase the College Readiness of Hispanic Students from Underserved Backgrounds

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Learners from underserved backgrounds tend to show lower levels of college readiness (ACT, 2016a; ACT, 2018). In part to address these disparities, we investigated growth in social and emotional (SE) skills in a cohort of largely Hispanic, high-poverty students who participated in GEAR UP. GEAR UP is a discretionary federal grant program designed to increase the number of low-income students who are prepared to enter and succeed in college. This study suggests that GEAR UP has a positive effect on students' SE skills and thus on their overall college readiness. It also shows that lower-performing students displayed the greatest improvement in SE skills by the end of the study, closing the gap with higher-performing students. However, we did find that interventions take time to produce change. This is important to note in the current educational reform climate in which interventions are often attempted and abandoned within an academic year or less.

ACT defines learners from underserved backgrounds as those whose parents did not attend college; whose family income is less than \$36,000 per year; or whose race/ethnicity is African American, Hispanic, Native American, or Pacific Islander (ACT, 2018). These learners tend to show lower levels of college readiness overall (ACT, 2016a), and students who meet more of the aforementioned criteria demonstrate progressively lower college and career readiness rates (ACT, 2018). For example, first generation college students (FGCS) experience lower than average college graduation rates (Ishitani, 2006; Musu-Gillette et al., 2016), and these graduation rates decrease even further when FGCS are also from a racial or ethnic minority group.

FGCS tend to score lower than their more advantaged peers on standardized tests and in school (ACT, 2016a; Chen & Carroll, 2005; NAEP, 2016), as well as have lower self-efficacy, perceive greater obstacles to college entry, and have a more negative outlook on their chances of going to college (Cruce et al., 2005; Gibbons & Borders, 2010). These difficulties stem from lack of academic preparation and achievement, underdeveloped SE skills, and low parental involvement (Zuo et al., 2018). Hispanic college students are the racial/ethnic group most likely to be FGCS (Baileman & Feng,



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2013) and are therefore at the intersection of two underserved identities in their pursuit of a college education. Studies on this subgroup of students demonstrate poor academic outcomes such as low first- to second-year persistence rates (Lohfink & Paulsen, 2005) and a low likelihood of receiving a bachelor's degree within eight years of high school graduation (McCarron & Inkelas, 2006). Hispanic FGCS report financial issues, a lack of exposure to college, and academic unpreparedness as key concerns (Boden, 2011; Gloria & Castellanos, 2012; Mahaffy & Pantoja, 2013; Zurita, 2004).

Interventions that are designed to give students the information they need to be successful in college can assist learners from underserved backgrounds and enable them to overcome obstacles that inhibit post-secondary success. Effective programs target SE skills such as self-efficacy, motivation, self-regulation, and social connectedness. Illustrative of SE skills' importance for college success, they predict academic performance (Poropat, 2009), college retention (Robbins et al., 2004), behavioral problems (Ge & Conger, 1999), health (Bogg & Roberts, 2004), and peer relationships (Jensen-Campbell et al., 2002). Further, SE skills continue to naturally develop over time from childhood into middle or late adulthood (Roberts et al., 2006). These changes can be aided through the use of interventions (Roberts et al., 2017), and school-based SE learning programs can be effective for improving these skills (Corcoran et al., 2018; Sklad et al., 2012; Taylor et al., 2017; Wigelsworth et al., 2016) as well as attitudes and academic performance (Durlak et al., 2011).

There are two main advantages to examining SE skills in relation to college readiness: they show few mean-level differences between demographic groups, and they predict many outcomes of interest. Although mean-level differences still do exist, these observed racial or ethnic group differences are miniscule compared with those observed on cognitive standardized tests, such as the ACT® (Allen & Mattern, 2019) or SAT (College Board, 2016). Importantly, SE skills have been shown to predict academic performance and retention in both high school and college, over and above effects of high school GPA and achievement tests like the SAT and ACT (Poropat, 2009; Richardson et al., 2012; Robbins et al., 2004). ACT® Engage®, one measure of students' SE skills, is a significant predictor of outcomes like college GPA, retention, and completion (ACT, 2016b).

The purpose of this study was to investigate growth in SE skills in a cohort of largely Hispanic, high-poverty students who participated in GEAR UP programming. GEAR UP offered services designed to increase the college readiness of students over the six years of this study. These services, aimed at students, parents, and teachers, included activities such as academic planning and financial aid counseling, college fairs and field trips, leadership development, and college readiness training. Students also received training on skills such as studying, time management, planning and organization, and managing stress. Services were specifically aligned to the ACT SE skills through crosswalks.

Participants in this study included students who took the ACT Engage® Grades 6-9 and/or ACT Engage® Grades 10-12 assessments. ACT Engage assesses 10 SE skills for middle and high schoolers. Scores on *Academic Discipline* (amount of effort put into schoolwork), *Commitment to School/College* (one's commitment to staying in college and getting a degree), and the *Academic Success Index* (which reports an estimated

probability of receiving a GPA > 2.0) were examined longitudinally from grades 7 to 12. The primary sample of interest included longitudinal data for 15,260 students from 75 schools who were part of Region One Education Service Center's GEAR UP cohort. Schools in the Region One GEAR UP cohort have student populations that are over 90% Hispanic and low socioeconomic status, as defined by the percentage of students qualifying for free or reduced lunch. The national comparison sample was mostly cross-sectional and included 143,937 students in 802 schools.

Two-sample *t*-tests, overlapping *t*-tests, and mixed measures ANOVAs were used to analyze the data. Across the three scales, Region One students scored significantly below the national comparison sample in grades 7-9, but they showed significantly higher levels of SE skills than the national comparison sample by 12th grade (see Figure 1). Compared to the national sample, Region One students experienced continued growth over time for *Academic Discipline* and smaller rates of decline for *Commitment to School/College*. A subset of the Region One sample containing the 1,768 students who took the Engage assessments each year from 7th through 12th grade was used to further analyze these trends. The sample was divided into three groups based on national percentile ranks of students' *Academic Success Index* in 7th grade (see Table 1). Region One students who scored in the bottom 25% of the *Academic Success Index* in 7th grade improved substantially over time, thus reducing the gap in SE skills compared to those who scored in the upper three quartiles of the index. Students in the middle 50% of performance showed a moderate increase from 7th grade through 12th grade, and students in the top 25% maintained a high level of SE skills from 7th to 12th grade (see Figure 2).

These findings are consistent with previous research showing that school-based SE learning programs can be effective for improving SE skills (Corcoran et al., 2018; Durlak et al., 2011; Taylor et al., 2017) and that individuals who score at the lowest levels at the beginning of an intervention program often achieve the most gains as a result of the intervention, even if they do not fully "catch up" to their peers (Roberts et al., 2017). Additionally, Region One students evidenced similar SE skill development trends as those reported in Soto et al. (2011), where the transition from middle school to high school often accompanies a decline in SE skills. There are specific challenges (Benner, 2011) and developmental tasks (Soto et al., 2011) associated with this period. These include things like an increase in seeking autonomy and resisting values and norms, which would explain the initial decrease, followed by greater development of self-regulatory skills, which would explain the subsequent increase. However, to our knowledge, this is the first study that documents these patterns in a sample of Hispanic students from underserved backgrounds. As scholars strive to better understand personality and SE skill development across different segments of the population, this work underscores the need to conduct more research with underserved samples.

Also consistent with previous research, SE skills are responsive to programming, and Hispanic students from underserved backgrounds appear to be just as responsive as mainstream samples to targeted interventions. This was especially true for *Academic Discipline*, which is encouraging as this skill tends to be among the stronger predictors of successful college outcomes (ACT, 2016b). The targeted interventions also appeared to improve the likelihood that students would achieve higher levels of academic performance, as indicated by the improved Academic Success Index

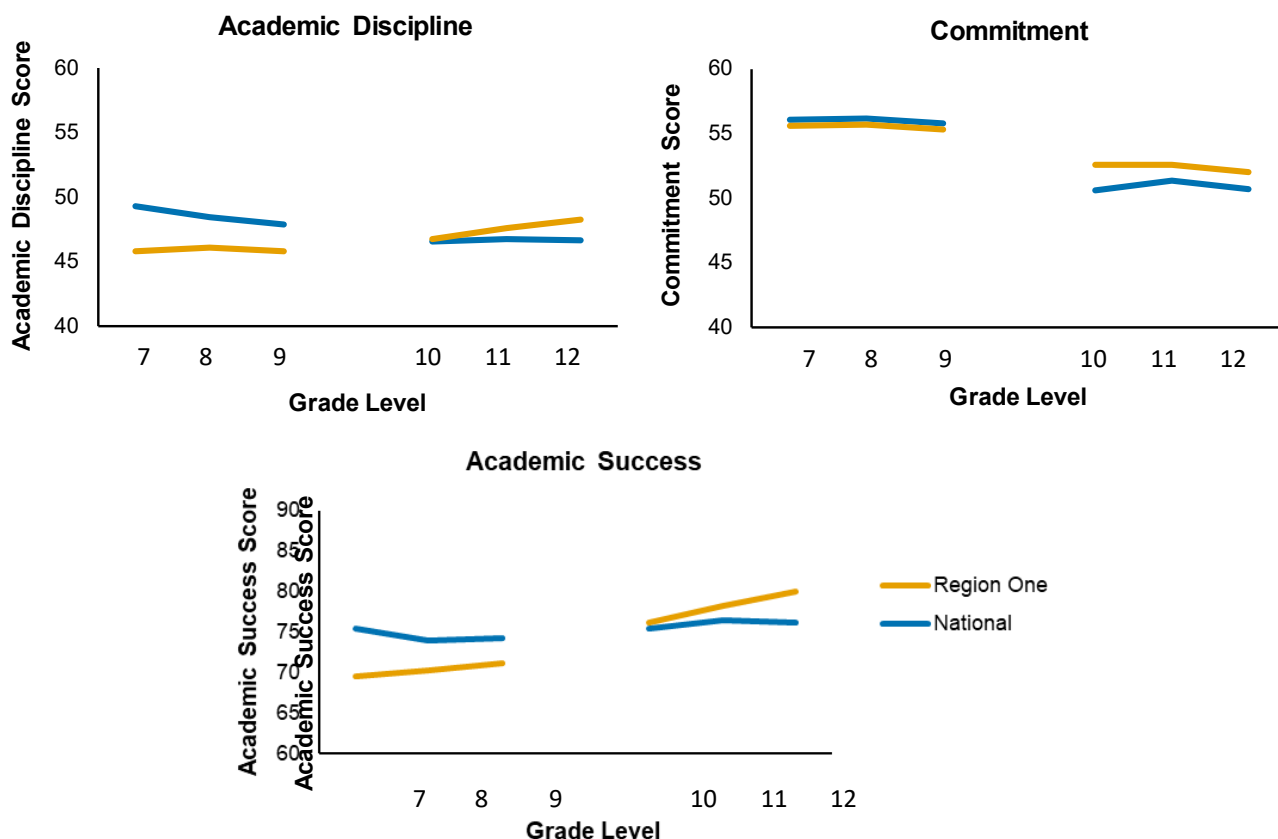
scores in the Region One group. The findings from this study demonstrate the potential benefits interventions can have for enhancing SE skills and, in turn, for improving academic performance and college readiness, especially for students from underserved backgrounds. It is important to note, however, that interventions do not produce change overnight. For educational institutions to truly experience the benefits of SE skill-based interventions, they must set reasonable timelines for when to expect results, refrain from withdrawing support for these initiatives if immediate improvement is not seen, and make long-term commitments to these programs.

Table 1. Mean Academic Success Index Trends by Quartile and Grade Level

Grade	Lowest 25% (N = 217)	Middle 50% (N = 1,123)	Highest 25% (N = 428)
7	44.7 (10.9)	75.7 (8.2)	92.8 (2.2)
8	57.4 (16.7)	75.8 (12.0)	88.8 (7.0)
9	58.1 (16.7)	75.4 (12.9)	87.6 (7.6)
10	66.6 (17.3)	78.9 (12.9)	88.1 (7.1)
11	67.5 (17.0)	80.2 (12.6)	88.0 (8.4)
12	71.1 (16.5)	81.4 (12.2)	88.6 (7.5)

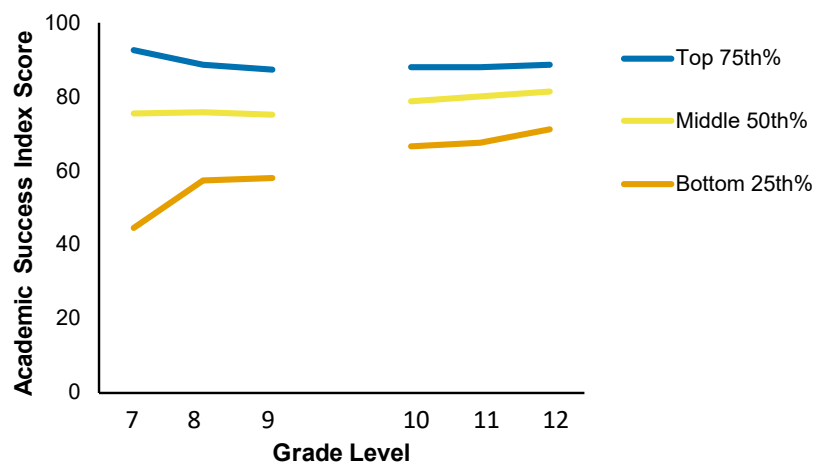
Note. SDs are in parentheses.

Figure 1. Region One Students Score Below the National Comparison Sample on SE Skills in Grades 7-9, But Surpass the National Comparison Sample’s Scores by Grade 12



Note. The discontinuity from 9th to 10th grade represents the transition in assessments from Engage Grades 6-9 to Engage Grades 10-12.

Figure 2. Academic Success Index Mean Score Trends: Bottom 25% of Region One Students Improve Substantially Over Time



Note. The discontinuity from 9th to 10th grade represents the transition in assessments from Engage Grades 6-9 to Engage Grades 10-12.

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