
Examining the Relationship Between Social and Emotional Skills and ACT Composite Scores

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Social and emotional skills, such as Sustaining Effort and Maintaining Composure, are related to many positive outcomes, including academic performance and life satisfaction (e.g., Poropat, 2009; Steel, Schmidt, & Shultz, 2008), and are often taught through social and emotional learning (SEL) programs. The purpose of the current study was to examine the relationship between these skills and ACT® test scores.

Mosaic™ by ACT® Social Emotional Learning assessment data was collected from 6,747 students (53% female, 47% male; 67% White, 12% Hispanic, 6% Black, 3% Asian; 74% 11th graders, 23% 12th graders at the time of the ACT test) and matched to their ACT scores. Their Mosaic by ACT SEL assessment data were captured during the school years 2018–2019 and 2019–2020, while the ACT tests occurred from 2018 to 2021. The assessment measures five social and emotional skills, which are described below in terms of the student behaviors that are demonstrated by each skill:

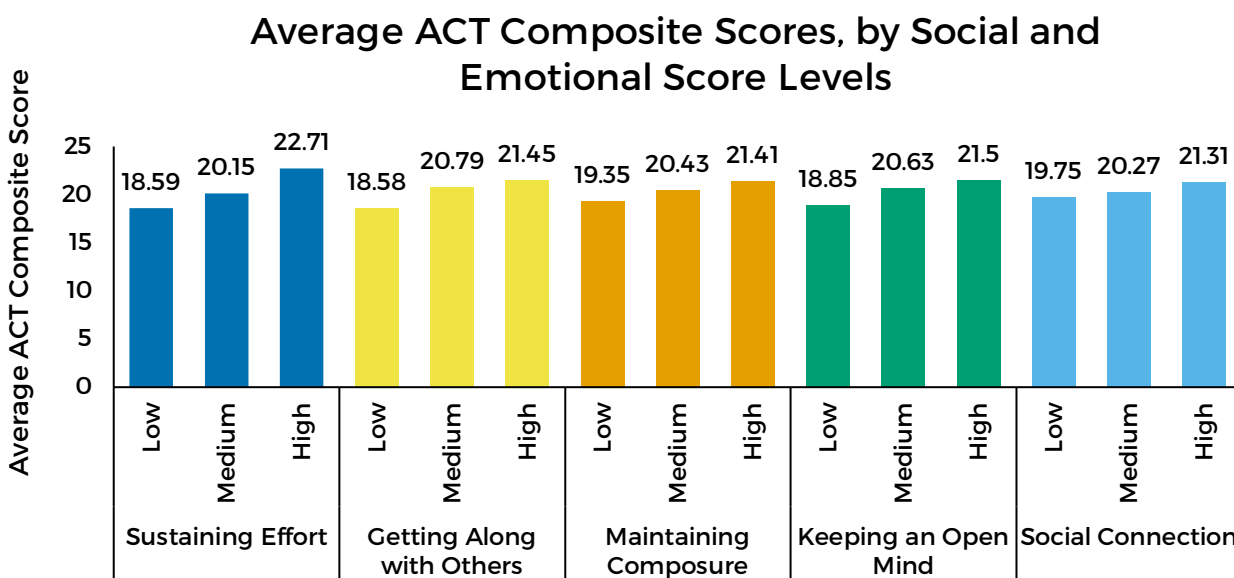
- **Sustaining Effort:** diligence, effort, organization, self-control, and compliance with rules.
- **Getting Along with Others:** positive interactions, cooperation with others, kindness, friendliness, and tactfulness.
- **Maintaining Composure:** relative calmness, serenity, and the ability to manage emotions effectively.
- **Keeping an Open Mind:** open-mindedness and curiosity about a variety of ideas, beliefs, people, and experiences.
- **Social Connection:** a preference for social interaction, assertiveness in social situations, and optimism.

Students in the lowest quartile in a given skill were classified in the *low* category, students in the top quartile were classified in the *high* category, and the rest of students were classified as *medium*.



Our data show that there is a clear positive relationship between social and emotional skills and ACT Composite scores. As shown in the figure below, students who have higher social and emotional skills tend to also have higher ACT Composite scores.

Figure 1. Mosaic by ACT Social and Emotional Skills Scales and their Relationship to ACT Composite Score



As can be seen in the figure above, students who obtain higher scores on a social and emotional skill have higher average ACT Composite scores. This holds true regardless of the skill, although the most prominent difference is over 4 points on the ACT Composite score between low and high Sustaining Effort. The smallest difference is between low and high Social Connection, with about 1.5 points of difference on the ACT Composite score. The correlations between ACT Composite scores and social and emotional skill scores are as follows: Sustaining Effort $r = .27$, Getting Along with Others $r = .17$, Maintaining Composure $r = .13$, Keeping an Open Mind $r = .18$, and Social Connection $r = .10$.

Prior research has indicated that one month of schooling is related to an average ACT Composite score increase of .22 points (Allen, Mattern, & Camara, 2020). The difference between the bottom quartile and the top quartile for Sustaining Effort is associated with a difference of 4.12 points on the ACT Composite score. A difference of that magnitude is comparable to the effect of over one year and a half of schooling.¹

Although this study was only correlational in nature, these results are consistent with previous research showing that SEL programs lead to an 11% gain in academic

achievement (i.e., Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Along with previous research that has shown that social and emotional skills are predictive of important outcomes above and beyond cognitive ability (e.g., life satisfaction, workforce success; Roberts, Kuncel, Shiner, Caspi & Goldberg, 2007; Steel et al., 2008), the results suggest that there is value in measuring and improving social and emotional skills.

References

- Allen, J., Mattern, K., & Camara, W. (2020). *Predicting the impact of COVID-19 school closures on ACT test scores: Methods and considerations for states and districts*. Iowa City, IA: ACT. Retrieved from <https://www.act.org/content/dam/act/unsecured/documents/R1828-covid-impact-2020-05.pdf>.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development* 82(1), 405–32.
- Poropat, A. E. (2009). A meta-analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, 135(2), 322–338.
- Roberts, B. W., Kuncel, N. R., Shiner, R., Caspi, A., & Goldberg, L. R. (2007). The power of personality: The comparative validity of personality traits, socioeconomic status, and cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science* 2(4), 313–345.
- Steel, P., Schmidt, J., & Shultz, J. (2008). Refining the relationship between personality and subjective well-being. *Psychological Bulletin*, 134(1), 138–161.

Notes

1. The study presents descriptive and correlational results and more research is needed to understand the causal effects of social and emotional skills on ACT Composite scores.