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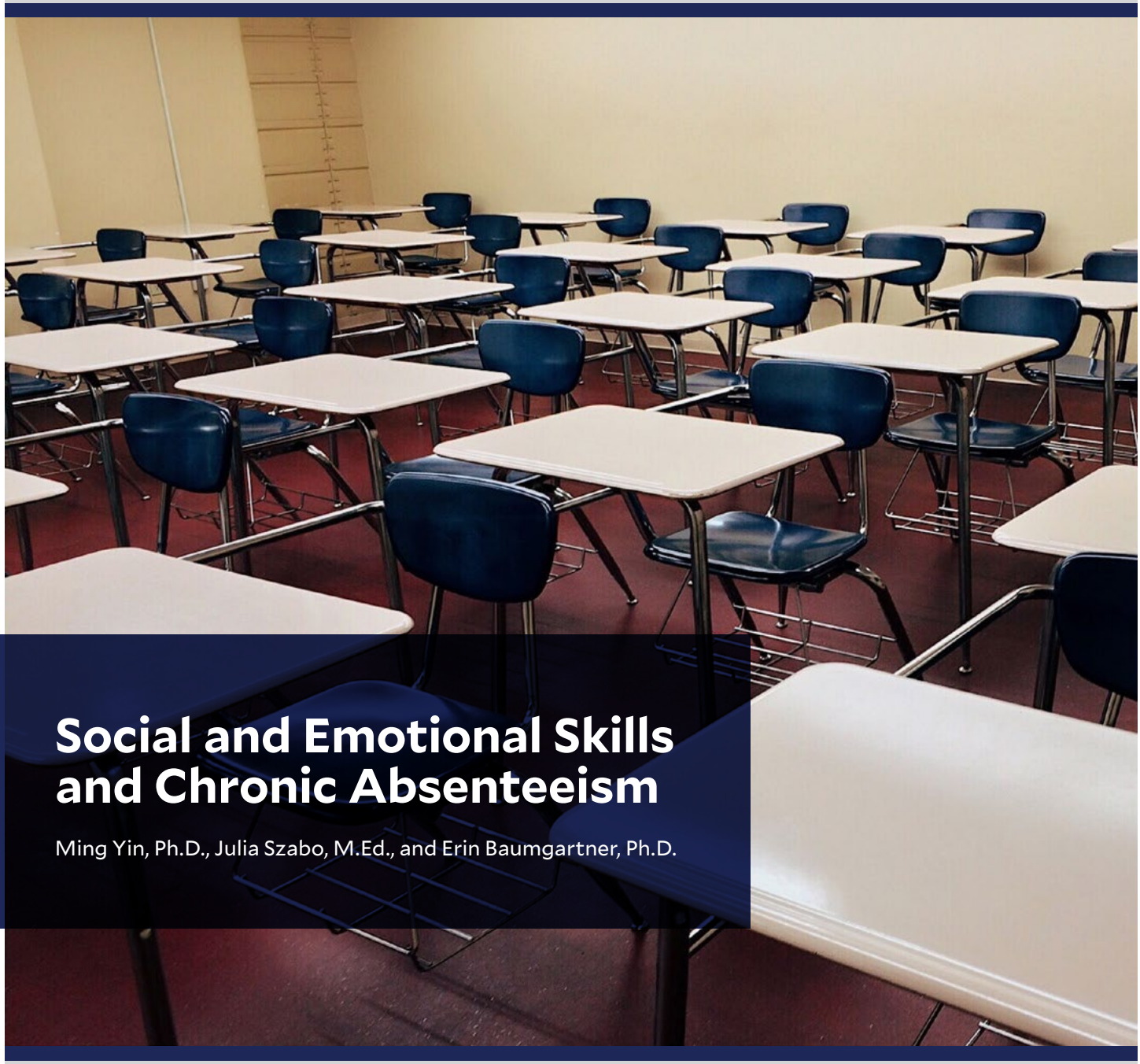

Social and Emotional Skills and Chronic Absenteeism

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Research Brief

for the Houston Independent School District

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Research Brief

Social and Emotional Skills and Chronic Absenteeism

The Study of Social and Emotional Skills (SSES) is an international effort led by the Organization for Economic Co-operation and Development (OECD). The Houston Independent School District (HISD) served as the only U.S. site for this study. Over 3,000 15-year-old students from 45 HISD campuses participated in the SSES in the fall of 2019. **This brief examines whether and how social and emotional skills were connected to chronic absenteeism.**

Social and emotional (SE) skills refer to the process by which children acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (OECD 2015). SE skills can lead to improved outcomes in education, employment, health, and well-being (Kankaraš & Suarez-Alvarez 2019). **In 15-year-old students, those who self-reported higher levels of cooperation, emotional control, or energy were less likely to display chronic absenteeism, whereas students who self-reported higher levels of assertiveness and self-control were more likely to display chronic absenteeism.**

Key Findings

- Students who reported having higher levels of cooperation, emotional control, and energy were less likely to demonstrate chronic absenteeism.
- Students who reported higher levels of assertiveness and self-control were more likely to demonstrate chronic absenteeism.

Introduction

Background

Chronic absenteeism is a widespread problem in the U.S.—about one out of every six students miss three school weeks or more each year (Department of Education 2019). Students who are chronically absent are more likely to drop out of school, engage in delinquency, and have lower levels of academic achievement and a decreased desire to go to college (Lounsbury et al. 2004). Although research points to some contributors to chronic absenteeism, including poor health, limited transportation, and a lack of safety (Department of Education, 2019), little attention has focused on the role of social and emotional skills. In the fall of 2019, more than 6,400 HISD students from 119 campuses participated in the Study of Social and Emotional Skills, an international survey of 10- and 15-year-old students led by the Organization for Economic Cooperation and Development (OECD). Compared to the 10-year-old cohort, a substantially larger number of 15-year-old students exhibited chronic absenteeism[1]. Thus, this study sought to understand whether and how SE skills were connected to 15-year-old students' chronic absenteeism. (See Brief 1 of the series for more details about the Big Five framework and definitions for each domain and subdomain skill.)

Research Question

This brief addresses the following research question:

- *How were 15-year-old HISD students' self-reported social and emotional skills connected to chronic absenteeism?*

Data and Sample

Data for this study came from the SSES student survey collected in fall 2019. This survey was administered to a randomly-selected group of 15-year-old students from 45 campuses in HISD. Additional data came from the 2019-20 Public Education Information Management System (PEIMS), HISD fall 2019 course grade data, and Average Daily Attendance (ADA) 2019-20. Among the students who completed the survey, 3,071 15-year-old students were included in the study. See Appendix II for more information on the students included in this study.

Absenteeism

In this study, chronic absenteeism was defined as having missed more than 10% of school days, or about 8 of 77 days in fall 2019. Specifically, students who missed more than 10% of school days in fall 2019 were considered as displaying chronic absenteeism, whereas those who missed 10% or less were considered as not displaying chronic absenteeism. This cutoff was selected because 90% was the minimum attendance rate for getting course credit required by Texas Education Code Section 25.092.

1 In the weighted sample, the rate of chronic absenteeism was 2.3% for 10-year-old students (N ≈ 90) and the rate was 9.2% for 15-year-old students (N ≈ 300).

Measures of social and emotional skills

A set of 15 social and emotional subdomain skills from the OECD study were included in this analysis. Items that measure each of the SE skills are available in an online appendix. These skills include:

- Cooperation (living in harmony with others)
- Empathy (understanding and caring for others and their well-being)
- Trust (assuming that others generally have good intentions)
- Assertiveness (confidentially voicing opinions, needs and feelings)
- Energy (approaching daily life with energy, excitement and spontaneity)
- Sociability (having the ability to approach others)
- Emotional Control (having effective strategies for regulating temper, anger and irritation)
- Optimism (having positive expectations for self and life)
- Stress Resistance (effectiveness in modulating anxiety and able to calmly solve problems)
- Creativity (generating novel ways to do or think about things)
- Curiosity (having interest in ideas and a love of learning and intellectual exploration)
- Tolerance (being open to different points of view; valuing diversity)
- Persistence (persevering in tasks and activities until they got done)
- Responsibility (honoring commitments, and being punctual and reliable)
- Self-Control (avoiding distractions and sudden impulses)

Analytical strategies

To understand the ways in which SE skills were linked to 15-year-old students' attendance, this analysis used Generalized Structural Equation Modeling (GSEM) to examine the relationship between SE skills and absenteeism as indicated by high rates of absence (missing more than 10% of school days in fall 2019). Important student demographic, academic, and socioeconomic characteristics were also accounted for in the analyses. Specifically, the following student characteristics were included: grade level, English learner (EL) status, special education status, gender, race/ethnicity, economic disadvantage status, and average reading and math grades in fall 2019. Differences between campuses were also accounted for. Detailed results for all SE skills from the analyses can be found in Appendix I.

Key Findings

1 Students who reported higher cooperation, emotional control, and energy were less likely to demonstrate chronic absenteeism.

Fifteen-year-old students reporting higher levels of cooperation, emotional control, and energy were less likely to demonstrate chronic absenteeism than those reporting lower levels of these skills, as demonstrated in Figures 1-3. Cooperation is defined as living in harmony with others and valuing interconnectedness among all people (OECD 2021a). Students reporting the highest level of cooperation were 18 times less likely to display chronic absenteeism than students reporting the lowest level of cooperation. Emotional control refers to effective strategies for regulating temper, anger and irritation in the face of frustrations (OECD 2021a). Students who reported the highest level of emotional control were 15 times less likely to display chronic absenteeism than students reporting the lowest level of emotional control. Students who have high levels of energy typically approach daily life with excitement and spontaneity (OECD 2021a). Students reporting the highest level of energy were about 4.5 times less likely to display chronic absenteeism than students who reported the lowest level of energy.

FIGURE 1 **Cooperation and Chronic Absenteeism**

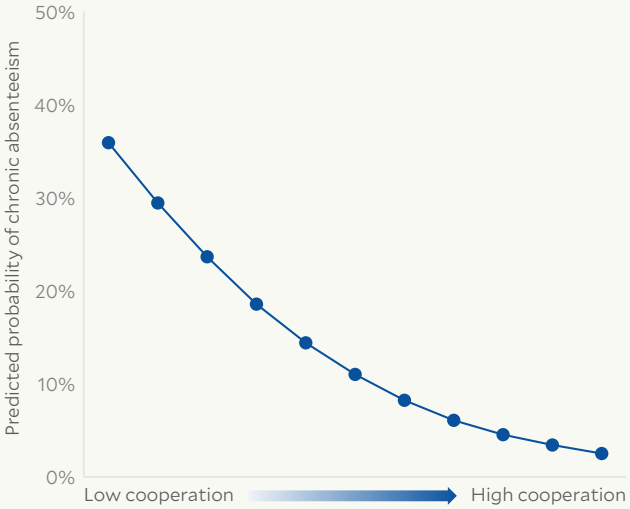


FIGURE 2 **Emotional Control and Chronic Absenteeism**

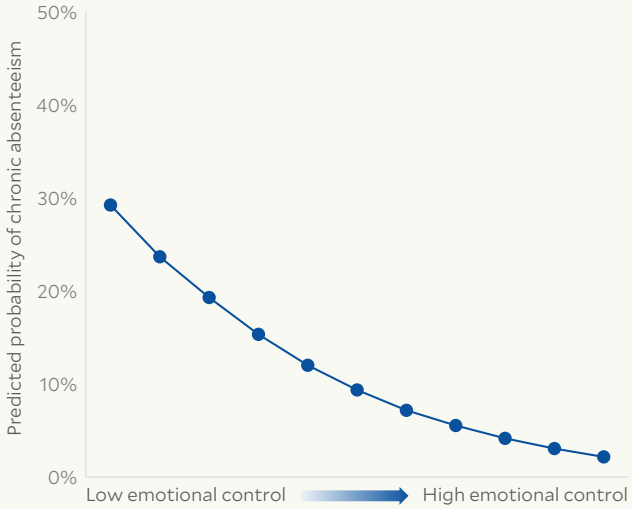
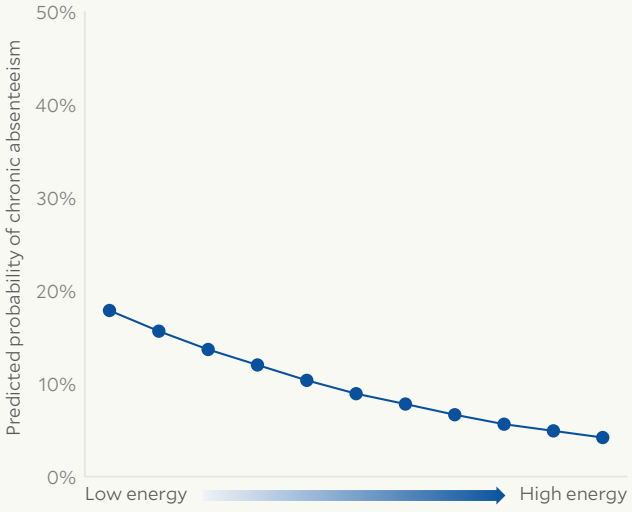


FIGURE 3

Energy and the Likelihood of Chronic Absenteeism



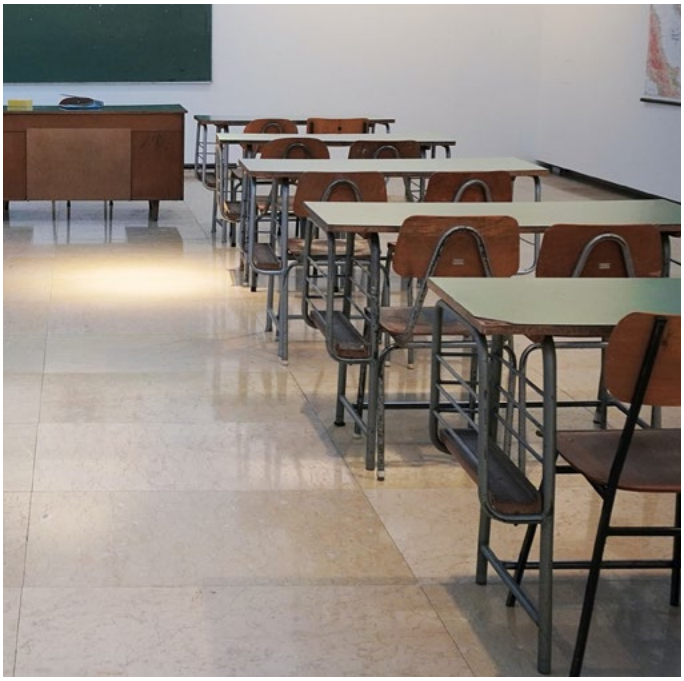


Photo by Ivan Aleksic on Unsplash

2 Students who reported higher assertiveness and self-control were more likely to demonstrate chronic absenteeism.

As seen in Figures 4 and 5, 15-year-old students reporting higher levels of assertiveness and self-control were more likely to display chronic absenteeism than those reporting lower levels. Assertiveness is the ability to confidently voice opinions, needs and feelings, and exert social influence (OECD 2021a). Students reporting the highest level of assertiveness were 6 times more likely to display chronic absenteeism than students reporting the lowest level of assertiveness. Self-control measures whether individuals are able to avoid distractions and sudden impulses and focus attention on the current task in order to achieve personal goals (OECD 2021a). Students reporting the highest level of self-control were 11 times more likely to display chronic absenteeism than students reporting the lowest level of self-control.

FIGURE 4

Assertiveness and Chronic Absenteeism

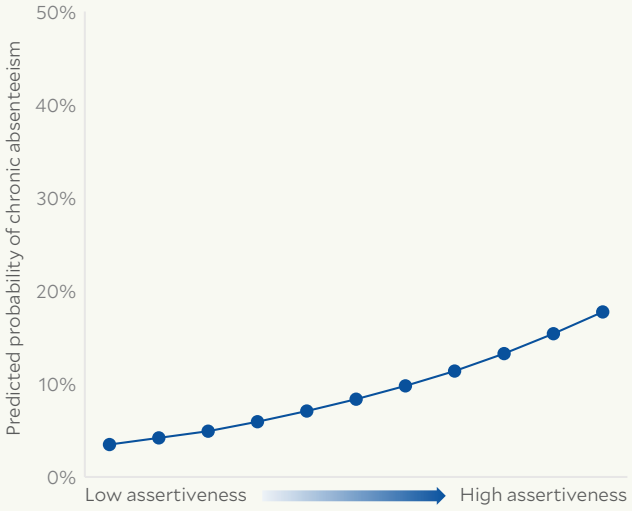
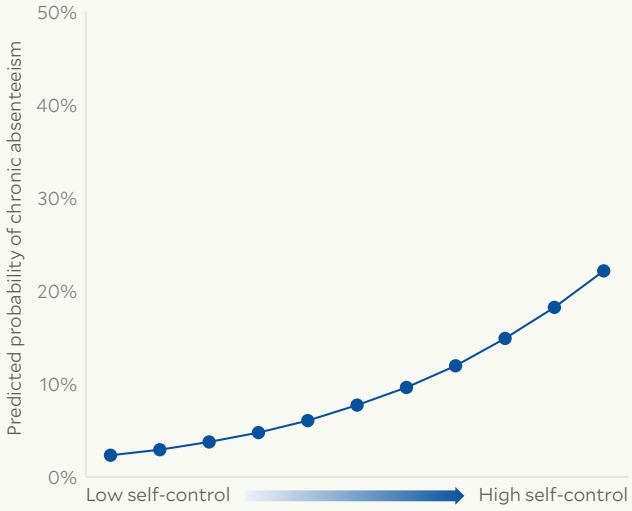


FIGURE 5

Self-control and Chronic Absenteeism



Conclusion and Recommendation

Conclusion

The purpose of this brief was to understand the ways in which SE skills were linked to chronic absenteeism among 15-year-old students. Students who self-reported higher levels of cooperation, emotional control, or energy were less likely to display chronic absenteeism, whereas students who self-reported higher levels of assertiveness and self-control were more likely to display chronic absenteeism.

Findings on cooperation, emotional control, and energy are aligned with the other research that connects students' social and emotional skills with chronic absenteeism. For example, a research review on the risk factors of absenteeism by Kearney (2008) indicates that students who have difficulty interacting with others at school or completing school assignments are less likely to attend school regularly and consistently. Lounsbury and colleagues' (2004) study finds that students who can control their emotions are better able to face the stress of going to school and are less likely to avoid anxiety by being absent. Research considers this function of anxiety associated with shyness and withdrawn behavior (Kearney 2008). Individuals who are sociable, outgoing, and active usually display more energy in daily life and are more likely to remain in structured social settings, such as a school environment (Watson & Clark 1997; Lounsbury et al. 2004).

Although this study found that students who reported higher levels of assertiveness and self-control were more likely to display chronic absenteeism, these SE skills might not be strengths in different settings or with respect to other outcomes. For example, assertiveness may be devalued or seen as disruptive in schools, relating to negative outcomes, such as lower grades or more incidents of withdrawal, absences, and discipline, but may be admired when students express themselves at home (Lounsbury et al. 2004). High levels of self-control may be a sign of students displaying internalized behaviors such as shyness or anxiety (Röseler et al 2021). Although students exhibiting these behaviors could have difficulty acclimating at school, they may rarely act impulsively without thinking (Kearney 2008; Lounsbury et al. 2004; OECD 2021). Teachers and school staff should understand the various ways that assertiveness and self-control are manifested in students' behaviors. Other instances where there were no relationships between certain SE skills and chronic absenteeism may simply reflect that some skills have a stronger relationship with chronic absenteeism.

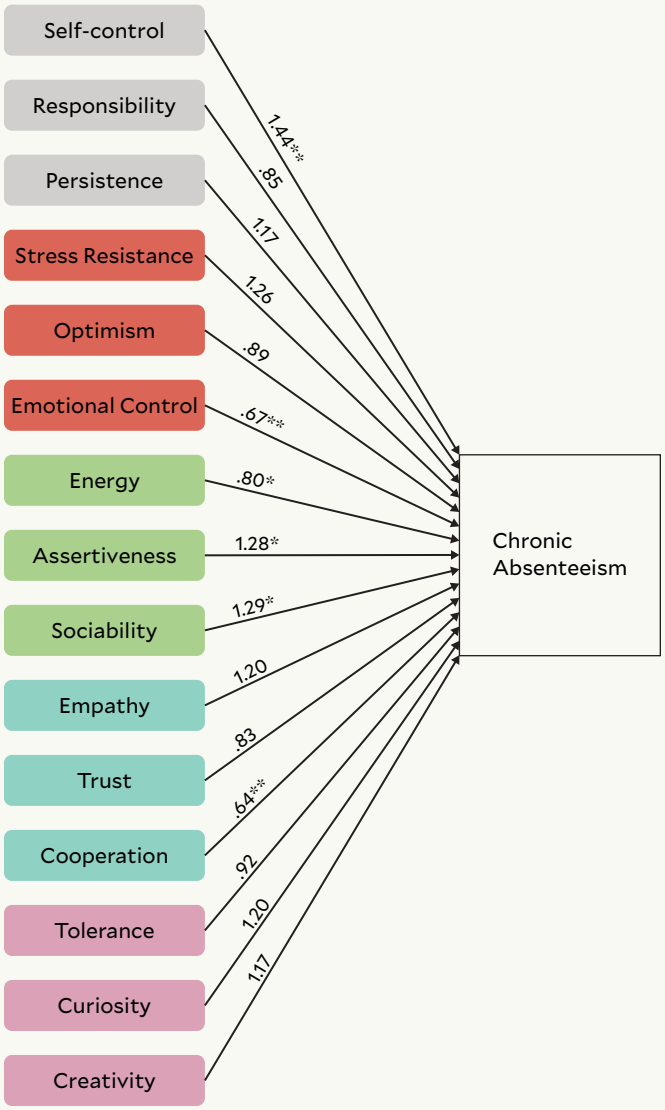
Recommendations

- Consider opportunities for campuses to assess student social and emotional skills regularly, particularly around assertiveness, self-control, cooperation, and energy, so that teachers and staff can use this information to support students who may be at greater risk of experiencing chronic absenteeism.
- As students who exhibit higher levels of cooperation, emotion control, and energy also have lower odds of chronic absenteeism, integrating these topics into the curriculum may help students build these skills and result in higher overall attendance rates.
- Create professional development opportunities for teachers and staff to support students who exhibit assertiveness and self-control in the school setting, as well as to reflect on whether these skills lead to negative outcomes around attendance or are reflective of other characteristics of students.

Appendix I. Generalized Structural Equation Modeling Results

Figure A1.1 illustrates the odds ratio and significance level between each of the SE skills and chronic absenteeism.

FIGURE A1 **Relationship between SE skills and chronic absenteeism**



Note: *p < 0.05. **p < 0.01 Numbers shown are the odds ratio from GSEM model, conditioning on student-level controls and latent school effects (see a list of control variables on page 3). Full GSEM results are available upon request.

TABLE 1 **15-Year-Old Student Respondents Profile**

Student Group	N	Percent
Overall	3071[1]	100
Grade[2]		
Grade 8	5	0.16
Grade 9	579	18.85
Grade 10	2228	72.55
Grade 11	241	7.85
Grade 12	18	0.59
Gender		
Male	1457	47.44
Female	1614	52.56
Race/Ethnicity		
Asian/PI	117	3.81
Black	781	25.43
Hispanic	1984	64.60
White	189	6.15
Economic Disadvantaged Status		
No	627	20.42
Yes	2444	79.58
English Learner (EL) Status		
Not Current EL	2525	82.22
Current EL	546	17.78
At-Risk Status		
No	1071	34.87
Yes	2000	65.13
Special Education Status		
No	2934	95.54
Yes	137	4.46

[1] Analytical samples were finalized based on the following exclusions. Students were excluded if (1) the demographic information was not captured in Public Education Information Management System (PEIMS) 2019-20 data; (2) survey responses were invalid or missing; or (3) students identified as Native American or multiracial.

[2] As shown above, the majority of 15-year-old students in this study were in grade 10.

Appendix II. Technical Notes

Analytical Strategies

Because of the binary nature of the dependent variable, generalized structural equation modeling with a logit link function was estimated to predict the likelihood of having a high absence rate. Complex survey design, student-level final/inference weights were accounted for in all analyses. School differences were also controlled for by adding a latent school effect in the analytical models. This is similar to adding school fixed effects. All SE skills were analyzed in the model simultaneously. Raw scores of the SE skills were transformed through dividing by 100 prior to using them in the analyses. To ease interpretation, odds ratios are presented in Figure A1.

To visualize the findings, the graphs in Figures 1 to 5 were produced based on the adjusted differences in the likelihood of the dependent variable (missing 10% of school days in fall 2019 or not). Predictive margins/adjusted predictions of the SE skills that were significantly connected with high rates of absence were graphed to visualize how the likelihood changed with different levels of the SE skills.

Academic Outcomes

The academic control variable was composite grades, created by averaging students' reading and math grades in fall 2019. The course grades data came directly from HISD and is different from the official end-of-year course grades data that the Houston Education Research Consortium typically receives. Most secondary schools had a six-week grading cycle. For schools with six-week grading cycles, the researchers used the Cycle 2 grades, which covered early October to early November.

To generate consistent performance measures on reading and math, a series of rules were applied. The researchers first categorized all courses offered based on subject areas and course descriptions. Among over 600 courses offered, 116 language arts courses (i.e., English language arts, Reading, Writing) were categorized under reading, and 59 math courses (i.e., General math, Algebra, Geometry, Calculus) were categorized under math. Then, the researchers identified applicable reading and math courses for each of the sampled students. If a student had two or more courses within the same category, the course with the highest grade was kept. About 10% of students in each cohort had letter grades for applicable courses. Next, letter grades were converted to numeric grades based on HISD conversion guidelines.[2]

Grading Scheme	Converted Score	Note
A	95	This conversion only applies to the students who received letter grades. The wide majority of students had numeric grades and those grades were sustained.
B	85	
C/D	75	
F	60	

Survey Weights

All analyses in this study have accounted for survey weights in order to calculate appropriate estimates of sampling error and to make valid estimates and inferences about the population.

The final student weight indicates the relative contribution of that unit to the estimated outcomes of the survey. It is the product of a design or base weight and of one or many adjustment factors. The former is the inverse of the probability of selection and the latter compensates for random non-response and other random occurrences that could, if not accounted for, introduce bias in the estimates. These design weights and adjustment factors are specific to each stage of the sample design (OECD 2021b).

2 Conversion guidelines were based on grading scale in the 2020-2021 HISD School Guidelines on pp. XV-7: https://www.houstonisd.org/site/default.aspx?PageType=3&ModuleInstanceID=228302&ViewID=C9E0416E-F0E7-4626-AA7B-C14D59F72F85&RenderLoc=0&FlexDataID=191356&PageID=31617&Comments=true

Survey items measuring self-control, emotional control, energy, assertiveness and cooperation

Self-control	Emotional Control	Energy	Assertiveness	Cooperation
▪ Careful with what I say to others ▪ Can control my actions ▪ Think carefully before doing something ▪ Avoid mistakes by working carefully ▪ Stop to think before I act ▪ Often act without thinking*	▪ Not easily upset ▪ Keep my emotions under control ▪ Get mad easily* ▪ Know how to control my anger ▪ Cannot predict my emotions and moods* ▪ Stay calm even in tense situations ▪ Often feel angry*	▪ Full of energy ▪ Show a lot of enthusiasm ▪ Less active than other people ▪ Have less energy than my classmates* ▪ Like sports where I can run ▪ Get tired quickly* ▪ Have a lot of energy throughout the day	▪ A leader ▪ Want to be in charge ▪ Know how to convince others to do what I want ▪ Enjoy leading others ▪ Dislike leading a team* ▪ Like to be a leader in my class ▪ Commanding and act like a leader	▪ Like to help others ▪ Get along well with others ▪ Work well with other people ▪ Start arguments with others* ▪ Always willing to help my classmates ▪ Ready to help anybody ▪ Polite, courteous to others

*Reverse-coded items. Items for all skills are available online.

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The Houston Education Research Consortium (HERC) is a research-practice partnership between the Kinder Institute for Urban Research and 11 Houston-area school districts. HERC aims to improve the connection between education research and decision making for the purpose of equalizing outcomes by race, ethnicity, economic status, and other factors associated with inequitable educational opportunities.

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