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The Context of Social and Emotional Skills:

Schools, Peers, Families, and Neighborhoods

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Research Brief

for the Houston Independent School District

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About HERC. Focusing on the most pressing challenges facing the region, 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 research is developed directly alongside district leaders with findings shared with decision makers—culminating in long-term, equity-minded solutions, opportunities and growth for Houston and beyond.

Research Brief

The Context of Social and Emotional Skills:

Schools, Peers, Families, and Neighborhoods

The Study of Social and Emotional Skills (SSES) is an international effort led by the Organization for Economic Co-operation and Development (OECD) with Houston Independent School District (HISD) serving as the only U.S. site. Over 6,400 10-year-old and 15-year-old students from 119 HISD campuses participated in SSES in the fall of 2019. **This brief examines how the characteristics of students' school, peer, familial, and neighborhood contexts were connected with their social and emotional skills.**

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 relationship, and make responsible decisions (OECD 2015). SE skills develop within the contexts and the complex networks of social relationships that children experience. **This study found that students reported higher social and emotional skills when they perceived higher levels of sense of belonging at school, less bullying at school, and better relationships with friends, family and neighbors.**

Key Findings



School—Students who reported having a higher sense of belonging, less bullying, and better relationships with teachers at school reported having higher social and emotional skills.



Peer—Students who reported having better relationships with their friends reported having higher social and emotional skills.



Family—Students who reported having better relationships with their family reported having higher social and emotional skills.



Neighborhood—Students who reported having closer relationships with their neighbors and living in safer neighborhoods reported having better social and emotional skills.

Introduction

Background

Social and emotional (SE) skills develop throughout childhood and adolescence. This development occurs within the circumstances and within the highly dynamic networks of social relationships that students experience (e.g., family, peers, school, and neighborhoods) (Mund et al. 2018). Students having varying strengths and difficulties around SE skills is a reflection of the circumstances they live and grow up in (Kankaras 2019). Moreover, the opportunities to develop SE skills are not equal - some students might face more barriers (i.e., poverty and violence) than others. Families,

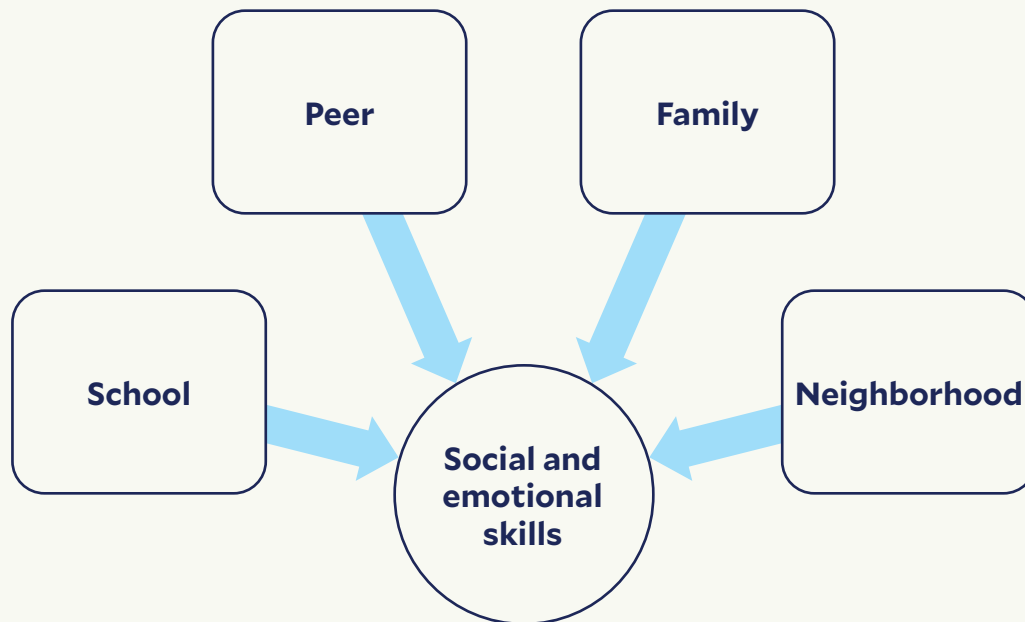
peers, schools and neighborhoods play an important role in SE development, and the importance of schools in particular has gotten more recent attention. Thus, this study focused on the connection between SE skills and four immediate contexts of students: school, peer, family and neighborhood (Figure 1).

Research Questions

This brief addresses the following research question:

How were the characteristics of students' school, peer, familial, and neighborhood contexts connected with SE skills?

FIGURE 1 SE skills and contexts



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 10-year-old and 15-year-old students from 119 campuses in HISD. Additional data came from the 2019-20 Public Education Information Management System (PEIMS), HISD fall 2019 course grade data, and 2019 Texas Academic Performance Reports (TAPR). See Appendix II for more information on the students included in this study.

Contexts

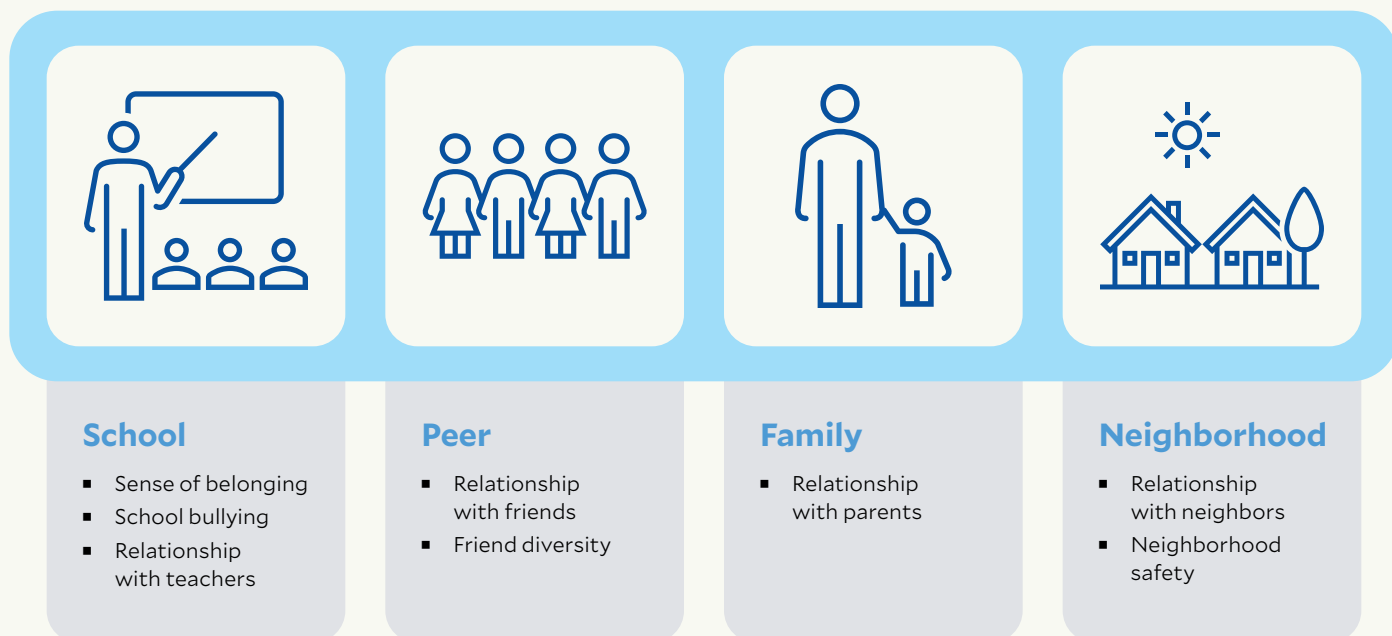
According to the person-environment model (Roberts & Mroczek 2008), contexts matter for social and emotional skill development because of the way both internal characteristics and external influences of a person interact to influence stability and change in personality through several specific mechanisms. For example, individuals differ in their choice of environments, the way they perceive their environments and the ways they are perceived and treated by others. The contextual indicators of their school, peer, family and neighborhood investigated in this study were all based on students' perceptions and evaluations of the settings or the mechanisms within the settings (Figure 2). Even being in the

same school or neighborhood, students might indicate different experiences because of their perceptions of their own person-environment interaction (Robert & Mroczek 2008).

Analytical strategies

To understand the ways in which contextual factors were linked to SE skills, this analysis used multilevel modeling strategies. Important student demographic, academic, and socioeconomic characteristics, as well as school demographic information were 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. Campus-level demographic characteristics, including percentages of students who were economically disadvantaged, students who were English learners and students who were Black, were retrieved from the 2019 TAPR. Differences between campuses were also accounted for. Cohort-specific analysis was conducted to obtain consistency with previous briefs of the series.

FIGURE 2 Contextual indicators explored in the brief



Note: Scales of the constructs were created based on responses to corresponding survey questions (see OECD SSES technical report for more details on scaling). The full lists of questions can be found in Appendix.



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 make up 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 (able to confidentially voice opinions, needs, and feelings)
- Energy (approaching daily life with energy, excitement and spontaneity)
- Sociability (able to approach others)
- Emotion Control (effective strategies for regulating temper, anger and irritation)
- Optimism (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 (interest in ideas and love of learning and intellectual exploration)
- Tolerance (open to different points of view, values diversity)
- Persistence (persevere in tasks and activities until they got done)
- Responsibility (able to honor commitments, and be punctual and reliable)
- Self-Control (able to avoid distractions and sudden impulses)

Key Findings

School Context



Students who reported having a higher sense of belonging, less bullying, and better relationships with teachers at school reported having higher social and emotional skills.

This study found that perceived sense of belonging, school bullying and relationships with teachers were connected to social and emotional skills. Some variations were found between 10-year-olds and 15-year-olds. The results are summarized in Table 1. Specifically:

- Students who perceived greater sense of belonging at school reported higher levels on all SE skills, except for tolerance, among 10-year-olds.
- In general, students who perceived less bullying at school reported higher levels of SE skills. Some

exceptions were in assertiveness and empathy for both age cohorts.

- Better relationships with teachers were connected to higher levels of curiosity, cooperation, self-control and responsibility for both age cohorts, and higher levels of tolerance, emotional control and persistence for 10-year-olds. However, students who perceived better relationships with their teachers reported lower sociability and energy (only for 10-year-olds).

TABLE 1 SE skills and school contexts

	Students who perceived higher sense of belonging reported...		Students who perceived more bullying at school reported...		Students who perceived better relationships with teacher reported...	
	10-year-old cohort	15-year-old cohort	10-year-old cohort	15-year-old cohort	10-year-old cohort	15-year-old cohort
Assertiveness	↑	↑				
Sociability	↑	↑	↓	↓	↓	↓
Energy	↑	↑		↓	↓	
Tolerance		↑	↓		↑	
Curiosity	↑	↑	↓	↓	↑	↑
Creativity	↑	↑		↓		
Empathy	↑	↑				
Trust	↑	↑	↓	↓		
Cooperation	↑	↑	↓	↓	↑	↑
Stress resistance	↑	↑	↓	↓		
Optimism	↑	↑	↓	↓		
Emotional control	↑	↑	↓	↓	↑	
Self-control	↑	↑	↓	↓	↑	↑
Responsibility	↑	↑	↓	↓	↑	↑
Persistence	↑	↑	↓	↓	↑	

Note: ↑ higher skill level, ↓ lower skill level, no arrow indicates no significant connection

Peer Context



Students who reported having better relationships with their friends reported having higher social and emotional skills.

This study found that perceived relationships with friends were positively connected to social and emotional skills. The results are summarized in Table 2. Specifically:

- Ten-year-old students who perceived better relationship with friends reported higher levels on all social and emotional skills. The relationship held true for most of the SE skills among 15-year-olds, except for assertiveness, energy, tolerance, curiosity, and creativity.
- Mixed findings were identified for friend diversity. Ten-year-old students who reported greater diversity in friends exhibited lower assertiveness, sociability, energy, and cooperation whereas 15-year-olds exhibited higher stress resistance when they reported having more diverse friends.

TABLE 2 SE skills and peer contexts

	Students perceived having better relationship with friends reported		Students perceived having more diverse friends reported	
	10-year-old cohort	15-year-old cohort	10-year-old cohort	15-year-old cohort
Assertiveness	↑		↓	
Sociability	↑	↑	↓	
Energy	↑		↓	
Tolerance	↑			
Curiosity	↑			
Creativity	↑			
Empathy	↑	↑		
Trust	↑	↑		
Cooperation	↑	↑	↓	
Stress resistance	↑	↑		↑
Optimism	↑	↑		
Emotional control	↑	↑		
Self-control	↑	↑		
Responsibility	↑	↑		
Persistence	↑	↑		

Note: ↑ higher skill level, ↓ lower skill level, a blank cell indicates no significant connection

Family Context



Students who reported having better relationships with their family reported having higher social and emotional skills.

This study found that perceived relationships with parents were positively connected to social and emotional skills. The results are summarized in Table 3. Specifically:

- Students who perceived better relationships with their family reported higher levels on all SE skills. The findings applied to both age cohorts.

TABLE 3 SE skills and family context

	Students who perceived better relationship with family reported...	
	10-year-old cohort	15-year-old cohort
Assertiveness	↑	↑
Sociability	↑	↑
Energy	↑	↑
Tolerance	↑	↑
Curiosity	↑	↑
Creativity	↑	↑
Empathy	↑	↑
Trust	↑	↑
Cooperation	↑	↑
Stress resistance	↑	↑
Optimism	↑	↑
Emotional control	↑	↑
Self-control	↑	↑
Responsibility	↑	↑
Persistence	↑	↑

Note: ↑ higher skill level, ↓ lower skill level, a blank cell indicates no significant connection

Neighborhood Context



Students who reported having closer relationships with their neighbors and living in safer neighborhoods reported having better social and emotional skills.

This study found that perceived relationships with neighbors and perceived neighborhood safety were positively connected to SE skills. The results were summarized in Table 4. Specifically:

- Students who perceived closer relationship with neighbors reported higher levels on all SE skills, except for curiosity, empathy, emotional control and persistence among 15-year-olds.
- Students who perceived more safety within neighborhoods reported higher levels on most of the SE skills among 10-year-olds (except for energy) and some skills among 15-year-olds (i.e. empathy, trust, cooperation, optimism, emotional control and responsibility).

TABLE 4 SE skills and neighborhood context

	Students perceived having closer relationship with neighbors reported		Students perceived greater neighborhood safety reported	
	10-year-old cohort	15-year-old cohort	10-year-old cohort	15-year-old cohort
Assertiveness	↑	↑	↑	
Sociability	↑	↑	↑	
Energy	↑	↑		
Tolerance	↑	↑	↑	
Curiosity	↑		↑	
Creativity	↑	↑	↑	
Empathy	↑		↑	↑
Trust	↑	↑	↑	↑
Cooperation	↑	↑	↑	↑
Stress resistance	↑	↑	↑	
Optimism	↑	↑	↑	↑
Emotional control	↑		↑	↑
Self-control	↑	↑	↑	
Responsibility	↑	↑	↑	↑
Persistence	↑		↑	

Note: ↑ higher skill level, ↓ lower skill level, a blank cell indicates no significant connection

Conclusion and Recommendation

Conclusion

Social and emotional skills develop and change with age. They are also influenced by a combination of biological and environmental factors, life events, and individual actions and perceptions (Kankaras 2019). The purpose of this brief was to understand the ways in which student-perceived characteristics of their school, peer, family, and neighborhood contexts were connected with their SE skills. There were indicators within each of these four contexts importantly connected to student-reported SE skills. For school context, students reported higher SE skills if they perceived greater sense of belonging, less school bullying or better relationship with teachers. For peers, family and neighborhood contexts, students reported higher SE skills if they perceived better relationships with friends and family, closer relationships with neighbors and higher neighborhood safety.

This study identified that student-perceived relationships within their immediate social contexts, including relationship with teachers, friends, parents and neighbors, were all importantly connected to SE skills. These findings align with previous research that shows individuals' characteristics develop through a dynamic, continuous, and reciprocal transaction with their environment, such as emotional closeness and conflict with family members, friends or acquaintances (Asendorpf & Van Aken 2003, Neyer & Asendorpf 2001).

In addition, this study found the number of significant relationships between SE skills and contexts went down for the 15-year-old cohort. This finding is consistent with the cumulative continuity principle of SE skill development trajectory. This principle indicates that

children's SE skills may fluctuate more substantially at an early age and become increasingly stable across adulthood (Kankaras 2019).

One important caveat of this study is that it is not clear whether the contexts examined here directly affect SE skills. Some research indicates that social and emotional skills might influence social relationships because SE skills are often considered more stable than contextual characteristics (Neyer & Asendorpf 2001). Other research contends that SE skill development could also result from adaptations to life circumstances and contexts during young adulthood (Asendorpf & Van Aken 2003). Further data points or analysis are needed to uncover the direction of the relationship at work here.

Recommendations

These are a few strategies school districts might consider in expanding support or advocating for more resources for developing these relationships:

- Grow opportunities for teachers to understand the specific ways schools can foster supportive and welcoming climates for students.
- Broaden support for students in developing building strong communication skills and respectful relationships with peers.
- Identify opportunities for families in strengthening communication skills between students and parents.
- Extend partnerships with community organizations to enhance the development of safe and tight-knit neighborhoods.

Appendix I. Survey Items of the Constructs Used in the Analysis

School

■ Perceived sense of belonging

Study of Social and Emotional Skill (SSES) measures a student's sense of school belonging by asking six questions about how they feel in their school environment and how they feel about their connections to others in school. Students rated from "strongly disagree" to "strongly agree" on statements such as "I feel like an outsider at school". Students received higher scores on this scale if they indicated greater sense of school belonging.

■ School bullying

SSES measures exposure to bullying by asking about in-person bullying (and cyberbullying for the 15-year-old cohort) experienced in the 12 months prior to the survey, including "Other students made fun of me." Students responded on a four-point scale ranging from "never or almost never" to "once a week or more," with an additional response option for the older cohort, "I don't use social media." Students received higher scores on this scale if they indicated more bullying at school.

■ Perceived relationship with teachers

SSES measures relationship between students and teachers by asking students how often they had the certain experiences at school during the past 12 months, such as "Most of my teachers treated me fairly." Students responded on a four-point scale ranging from "never or almost never" to "once a week or more." Students received higher scores on this scale if they indicated better relationship with teachers.

Peer

■ Perceived relationship with friends

Students were asked about their perceived relationship with their friends by responding about the extent to which statements such as "My friends understand me" were true from the following categories—"almost never or never true," "sometimes true," "often true" or "almost always or always true." Students received higher scores on this scale if they indicated better relationships with friends.

■ Friend diversity

Students were asked about the extent to which their friends were from a different country, or of other religions or beliefs, or from other ethnic backgrounds. Students responded on a four-point-scale ranging from "none or very few" to "all or almost all". Students received higher scores on this scale if they indicated their friends were more often from diverse background.

Family

■ Perceived relationship with parents

Students were asked about their perceived relationship with their parents by responding about the extent to which statements such as “I get upset easily with my parents” were true from the following categories: “almost never or never true,” “sometimes true,” “often true” or “almost always or always true.” Students received lower scores on this scale if they indicated better relationship with parents.

Neighborhood

■ Perceived relationship with neighbors

Students were asked about their perceived relationship with their neighbors by responding to the question “How close are you to your neighbors?” Students responded on a five-point scale ranging from “not at all” to “very close.” Students received higher scores on this scale if they perceived closer relationship with neighbors.

■ Perceived neighborhood safety

Students were asked about their perceptions of neighborhood safety by responding about the extent to which the neighborhood was safe along the following categories - “not safe,” “reasonably safe,” or “very safe.” Students received high scores on the scale if they perceived a higher level of neighborhood safety.

TABLE A1 Survey questions of constructs

SCHOOL CONTEXT	
Context Construct	Survey questions in final scale
Perceived sense of belonging*	Thinking about your school: to what extent do you agree with the following statements? (Strongly disagree, disagree, agree, strongly agree) <ul style="list-style-type: none"> I feel like an outsider (or left out of things) at school. <i>Reverse coded</i> I make friends easily at school. I feel like I belong at school. I feel awkward and out of place in my school. <i>Reverse coded</i> Other students seem to like me. I feel lonely at school. <i>Reverse coded</i>
Perceived school bullying *	During the past 12 months, how often have you had the following experiences in school? (Never or almost never, a few times a year, a few times a month, once a week or more) <ul style="list-style-type: none"> Other students made fun of me. I was threatened by other students. Other students took away or destroyed things that belonged to me. I got hit or pushed around by other students. Age 15 students were asked additional questions about bullying on social media <ul style="list-style-type: none"> I have been threatened by people People have spread nasty rumors about me
Perceived relationship with teachers*	During the past 12 months, how often have you had the following experiences in school? (Never or almost never, a few times a year, a few times a month, once a week or more) <ul style="list-style-type: none"> Most of my teachers treated me fairly. I got along well with most of my teachers. Most of my teachers were interested in my well-being.
PEER CONTEXT	
Context Construct	Survey questions in final scale
Perceived relationship with friends*	In this question we ask you to describe how true each of the following statements are. (Almost never or never true, sometimes true, often true, almost always or always true) <ul style="list-style-type: none"> My friends understand me. My friends accept me as I am. My friends are easy to talk to. My friends respect my feelings.
Friend diversity	How many of your friends are: (none or very few, some, many, all or almost all) <ul style="list-style-type: none"> ...from a different country than you? ...of other religions or beliefs than yours? ...from other ethnic backgrounds from yours?
FAMILY CONTEXT	
Context Construct	Survey questions in final scale
Perceived relationship with parents*	Now we ask you to describe how true each of the following statements are. (Almost never or never true, sometimes true, often true, almost always or always true) <ul style="list-style-type: none"> I get upset easily with my parents. It is hard for me to talk with my parents. I feel angry with my parents.
NEIGHBORHOOD CONTEXT	
Context Construct	Survey questions in final scale
Perceived relationship with neighbors*	How close are you to your neighbors? (Students responded on a five-point scale ranging from “not at all” to “very close”)
Perceived neighborhood Safety	How safe do you feel in the following settings? (Not safe, reasonably safe, very safe) <ul style="list-style-type: none"> In your neighborhood

*: Latent constructs were created by OECD with Item Response Theory scaling. For more information, please refer to SSES technical report.

Appendix II. Technical Notes

Analytical Strategies

Multilevel regression models were estimated to answer the research questions. Gender, race/ethnicity, economic disadvantaged status, English learner status, special education status, and course grades were controlled for at the student level. Campus-level percentage of Black students, percentage of English learners, as well as percentage of economically disadvantaged students were accounted for and included at the student level. The complex survey design and student-level final weights were accounted for in all analyses. School differences were also controlled for by adding a school-level random intercept. All 15 SE skills were analyzed in the model separately.

Survey Weights

All analyses in this study 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 is one of many adjustment factors. The former is the inverse of the selection probability, 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).

Academic Outcomes

The academic control variable was composite grades, created by averaging students' reading and math grades in fall 2019. The course grade data came directly from HISD and are 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 related courses (i.e., English language arts, Reading, Writing) were categorized under reading and 59 math related courses (i.e., General math, Algebra, Geometry, Calculus) were categorized under math. The researchers then 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.¹

1 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>

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Mission

The Kinder Institute for Urban Research builds better cities and improves lives through data, research, engagement and action.

About

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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