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An Examination of Education Mindset and the COVID-19 Pandemic Impact on Students' Success

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Abstract

The purpose of this study was to examine the parental mindset (fixed or growth) of middle school student parents; findings indicated a noticeable difference between growth mindset and fixed mindset in each of the participating school districts across three District Reference Groups (DRG) classifications. This study also investigated if there was pre-COVID to post-COVID change in student achievement; finding a significant difference between the 2021-2022 and 2018 -2019 Connecticut Smarter Balanced Test Scores in Math across DRG classification, with an overall 6% decrease in students who met or exceeded grade-level post-COVID, although no significant difference was found for ELA. Lastly, the overall findings support the concept of parental education mindset developed by the researcher for the purpose of this study; the researcher defined the concept of parental education mindset as the belief or expectation a parent has towards a school/school district's resources and ability to teach knowledge, impacting student achievement. Thus, the implications for practice recommended in this study may provide school districts with insight into building a strong foundation for school/parent partnerships.

Keywords: Parental mindset, COVID-19 impact, student achievement

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Introduction

Across the country educational institutions, district leaders, and teachers are held responsible for narrowing the achievement gap between disadvantaged and advantaged students (Connecticut State Department of Education, 2021; Claro et al., 2016; Kuhfeld et al., 2020; Kuhfeld & Tarasawa, 2020; Lee et al., 2021). Though at the same time, there are limitations school systems have due to factors that occur outside of educational institutions that contribute to the achievement gap in schools that are shown to have not only a greater impact than schools but that are in place before the child becomes of school age; before ever entering a school (Abu-Rabia & Yaari, 2012; Anthony & Ogg, 2019; Berliner, 2009; Braga et al., 2017; Caño et al., 2016; Maccoby, 2000; Matejevic et al., 2014; Grindal & Nieri, 2015; Örnek, 2015).

Literature Review

The adverse impact of COVID-19 continues in education (Bryant et al., 2023); with research predicting that socioeconomic status-based achievement gaps would be even wider due to the COVID-19 pandemic (Kuhfeld et al., 2020; Kuhfeld & Tarasawa, 2020) Therefore, the current study draws from the extant history of research supporting growth mindset as a possible mitigating factor to diminishing effects that economic disadvantages may have on student achievement (Bernecker & Job, 2019; Blackwell et al., 2007; Boser et al., 2014; Claro et al., 2016; Dweck, 2006; 2017; Dweck & Yeager, 2019; Li et al., 2020; Szumski & Karwowski, 2019; Yeager & Dweck, 2012). In addition, based on findings that this was not the case for all students, and that perception may have been a factor in both student achievement (Lee et al., 2021) and parental perception of student learning (Kulke, 2021) post-COVID-19, mindset will be further examined.

Thus, the review of the extant literature in the following sections shows evidence that indicates factors related to student achievement may suggest that both socioeconomic and socialization factors that have been reported to impact student achievement are in both theoretically and empirically related to parental influence on mindset development (Barattini, 2017; Claro et al., 2017; Dweck, 2017; Dweck & Yeager, 2019; Haimovitz & Dweck, 2016; 2017; Justice et al., 2020; Mueller & Dweck, 1998; Mueller et al., 2017; Ricci & Lee, 2016; Zeng et al., 2016).

Mindset

Mindsets (or implicit theories) are one's beliefs about the nature of human attributes, such as intelligence or personality (Bernecker & Job, 2019; Blackwell et al., 2007; Dweck et al., 1995; Dweck, 2000; 2006; 2011; 2017; Yeager & Dweck., 2012; Wilson & Conyers, 2020), and the belief or expectation one has towards such abilities may shapes one's perception and behavior (Dweck, 2000; 2006; 2011; 2017). According to Dweck (2000; 2006; 2011; 2017), the belief and expectation of academic ability is a mindset. A fixed mindset (or entity theory) is one's belief that human attributes, such as intelligence or personality, are fixed and therefore cannot be changed (Dweck, 2000; 2006; 2011; 2017; Dweck & Yeager, 2019; Haimovitz & Dweck, 2016). A growth mindset (or incremental theory) is one's belief that human attributes, such as intelligence or personality, are malleable and can be changed substantially through effort (Bernecker & Job, 2019; Claro et al., 2016; Dweck, 2000; 2006; 2011; 2017; Dweck & Yeager, 2019; Moniz et al., 2016; Yeager et al., 2019).

Mindset Development

The sociocultural perspective is at the root of many cultural and psychological theories in development, including the influence of nature vs. nurture on attitude development through social learning (Maccoby, 1992; 2000). In fact, Vygotsky's (1934) social development theory asserts that social interaction plays a foundational role in the development of cognition, emphasizing that intelligence can only be fully understood in relation to one's social and cultural background (Vygotsky, 1978). Maccoby (2000), proposed that though there may be individual experiences a child may experience by chance, during childhood, especially early childhood, a parent, or caregiver influences that child's personality, attitudes, beliefs, morals, norms, and expectations.

Granted, several studies report that educators play a significant part in a child's social development and academic achievement (Benner & Mistry, 2007; Boser et al., 2014; Dweck, 2006; 2019; Farrington et al., 2013; Jeynes, 2005; Kiviat, 2000; Lynch, 2016; Riley & Ungerleider, 2012;

Rosenthal & Jacobson, 1968; Szumski & Karwowski, 2019; Yeager & Dweck, 2012); the educator may not be the only influence, and the parent may play a key role as well (Abu-Rabia & Yaari, 2012; Anthony & Ogg, 2019; Benner & Mistry, 2007; Grusec & Danyliuk, 2014; Justice et al. 2020; Matejevic et al., 2014; Mueller et al., 2017; Parsons et al., 1982; Phillipson, 2010; Porumbu & Necsoi, 2012; Tan, 2017). Moreover, Dweck (2006) proposed that both teachers and parents may impact student achievement due to their influence on a child's developing mindset. However, research related to the impact a parent's beliefs or expectations regarding their child(ren)'s school/school district has on student academic achievement is lacking.

Parental Education Mindset

Consequently, though there is a history of research examining the impact mindset has on student achievement (Blackwell et al., 2007; Claro et al., 2016; Dweck, 2000; 2006; 2011: 2017; Dweck & Yeager, 2019; Haimovitz & Dweck, 2016; 2017; O'Keefe, 2013; Paunesku et al., 2015; Yeager & Dweck, 2012; Yeager et al., 2019; Zeng et al., 2016), and few that have investigated parental mindset as a factor in student achievement (Justice et al., 2020; Mueller & Dweck, 1998; Mueller et al., 2017; Phillipson, 2010). Therefore, the concept of parental education mindset proposed by the researcher, as a factor in student achievement stems from previous mindset research (Bernecker & Job, 2019; Claro et al., 2016; Dweck, 2000; 2006; 2011; 2017; Dweck & Yeager, 2019; Yeager & Dweck, 2012; Farrington et al. 2013; Mueller & Dweck, 1998; Mueller et al., 2017; Yeager et al., 2019). Dweck et al. (1995) proposed that individuals look at the same situation from two different perspectives, therefore two mindsets. The two mindsets stem from the implicit theories proposed in the seminal work of Kelly (1955) on personality and Heider (1958) on social perception (Dweck et al., 1995). In turn, it should be noted that two additional factors related to perception affect mindset, particularly growth mindset (Moniz et al., 2016). Confirmation bias is the first, one tends to seek out information that is consistent with preexisting beliefs and expectations while dismissing, or possibly attacking information that challenges those preconceptions (Moniz et al., 2016). Self-fulfilling prophecy is the second factor, closely related to confirmation bias (Moniz et al., 2016). According to Moniz et al. (2016), a self-fulfilling prophecy is when one's preconceived beliefs and expectations inadvertently become fulfilled (Moniz et al., 2016).

Therefore according to the researcher, parents may look at schools/school districts from two education mindsets. The researcher proposes that a growth parental education mindset towards education is the parent's belief and expectation that a school/school district has the ability and resources to teach knowledge (educate), offering curriculum and instruction that will develop and cultivate a student's academic achievement. Consequently, a fixed parental education mindset towards education is defined by the researcher as a parent's belief and expectation that a school/school district does not have the resources or ability to teach knowledge (educate), not offering the curriculum and instruction needed to impact academic achievement. However, before this can be explored further, understanding how parental education mindset influences student academic achievement and the factors that contribute to this phenomenon may need to be examined.

Furthermore, parental education mindset may be the foundation of involvement in their child's education. Justice et al. (2020) investigated parental mindset, examining ability mindset and effort mindset in parents from two countries, the United States and Denmark. The study consisted of 497 parents that had at least one child between 3 and 5 years of age. According to Justice et al. (2020), parental mindset is related to parental involvement, reporting that a parent's growth (effort) mindset was a significant predictor of both family learning activities and time invested by the parent. According to Justice et al. (2020), the results indicated that there were no cross-cultural differences in the levels of ability mindset [$t(494) = 1.54$, $p = 0.125$] or effort mindset [$t(494) = 0.99$, $p = 0.323$] between Denmark and the United States. In addition, it was reported that US parents were engaging in higher levels of home-learning activities, including family learning activities [$t(494) = 8.07$, $p < 0.001$], learning extension [$t(494) = 6.55$, $p < 0.001$], and parental time investment [$t(494) = 16.55$, $p < 0.001$] compared to the Danish parents; however, parental school involvement appeared to be an exception, higher among the Danish parents than the US parents [$t(494) = 3.92$, $p < 0.001$].

Parental Involvement and Mindset

Dweck (2006; 2011; 2017) proposed that mindset not only pertains to one's belief in ability and intelligence, but that it may also affect one's attitude towards learning. Therefore, further examination of the relationship between parental attitude toward learning and student achievement may provide further insight into parental education mindset. Several studies have examined the influence early caregivers have on a child's attitude toward academics (Abu-Rabia & Yaari, 2012; Anthony & Ogg, 2019; Dweck, 2006; 2011; 2017; Dweck & Yeager, 2019; Parsons et al., 1982; Phillipson, 2010; Porumbu & Necsoi, 2012; Tan, 2017) and research has shown that the parent may set the foundation of the child's attitude towards learning. The home most often is the first learning environment for a child, and that environment can be enriched by parental attitudes toward learning (Abu-Rabia & Yaari, 2012; Anthony & Ogg, 2019; Dweck, 2006; 2017; Grusec & Danyliuk, 2014; Justice et al. 2020; Matejevic et al., 2014; Parsons et al., 1982; Phillipson, 2010; Porumbu & Necsoi, 2012; Tan, 2017); and parental attitude may in fact contribute to the overall learning environment that parents create (Abu-Rabia & Yaari, 2012; Anthony & Ogg, 2019; Justice et al., 2020; Phillipson, 2010; Yamamoto & Holloway, 2010). Therefore, the relationship between parental attitudes and student achievement further supports that even if socioeconomic advantages are not present, parental education mindset may be an overriding factor related to student achievement (Claro et al., 2016; Crosnoe & Muller, 2014; Justice et al., 2020; Matejevic et al., 2014; Porumbu & Necsoi, 2012).

Student Achievement and Mindset

There is a history of research examining the relationship between mindset and student achievement (Bernecker & Job, 2019; Blackwell et al., 2007; Dweck et al., 1995; Dweck, 2000; 2006; 2011; Claro et al., 2017; Farrington et al. 2013; Haimovitz & Dweck, 2016; 2017; Justice et al., 2020; Wilson & Conyers, 2020; Yeager & Dweck., 2012). However to provide a deeper understanding of the mindset phenomenon, the seminal work of Rosenthal and Jacobson (1968) will be examined. Rosenthal and Jacobson (1968) looked at the Pygmalion effect in education; conducting a study implementing the Pygmalion effect in the classroom, demonstrating the impact teacher high expectations can have on student achievement. According to Rosenthal and Jacobson, the Pygmalion (1968) effect can be attributed to four factors: (1) climate – teachers tend to be nicer to those students that they believe have academic potential; (2) input – teacher tend to teach more to those they believe are capable of the work; (3) response opportunity – teachers tend to focus more on the students they believe to be capable by providing more chances to give input or answer questions; and (4) feedback – teacher tend to give more constructive feedback to the students they think will benefit from it while holding them to higher standards (Rosenthal & Jacobson, 1968). Rosenthal and Jacobson (1968) proposed that the experiment confirmed their hypothesis that students for whom teachers held higher expectations would perform better.

Student Achievement and the COVID-19 Pandemic

According to Orville (2020) as well as many educators around the world, the COVID-19 pandemic has resulted in the most unprecedented time in the history of education. Bryant et al. (2023) proposed that it will take many districts decades to recover from the adverse impact the CPVID-19 pandemic had on schools across the country. However, research into the impact COVID-19 would have on education began at the start of the pandemic before measures would even assess student achievement. Kuhfeld and Tarasawa (2020) estimated the impact that the COVID-19 pandemic would have on academic achievement for both Math and ELA by looking at what many educators referred to as the *"summer slide"*. According to Kuhfeld and Tarasawa (2020), "a typical year average academic growth varies across the academic year and generally declines from the last day of school through the summer, with steeper declines in mathematics than in reading" (p. 2).

Additionally, in a study consisting of approximately 5 million, 3rd grade – 7th grade students across the United States, Kuhfeld et al. (2020) proposed that socioeconomic status-based achievement gaps may be wider using the "*COVID slide*" projection. Kuhfeld et al. (2020) determined socioeconomic status using the percentage of students receiving free or reduced-price lunch, classifying low-SES (high-poverty) schools as schools with 90% free or reduced-price lunch and high-SES (low-poverty) schools as schools with less than 10% free or reduced-price lunch.

In a study conducted in South Korea, researchers examined the effects of learning attitudes and risk perception toward COVID-19 on academic performance in 268 middle school students since the COVID-19 pandemic began (Lee et al., 2021). The findings indicated that during the pandemic, middle school students who were more likely to accept the online instruction were able to keep their good grades from before COVID-19. Furthermore, the findings indicated that "students who had greater risk perception concerning COVID-19 were more likely to show poor academic performance since the COVID-19 pandemic began, even though they received A or B grades before COVID-19" (Lee et al., 2021, p. 6). According to Lee et al. (2021), risk perception may bring about more anxiety and stress, which may be obstacles for students. In addition, during the pandemic, risk perception toward COVID-19 may have been a factor affecting student academic performance.

Accordingly, previous research has found that low expectations may contribute to poor performance (Oz & Eden, 1994; Phillipson, 2010; Riley & Ungerleider, 2012). Therefore, the message predicting the loss of learning due to the pandemic shared by educators such as Kuhfeld et al. (2020) as well as what may have been communicated by parents may have negatively impacted student achievement following the pandemic (Barattini, 2017; Benner & Mistry, 2007; Grusec & Danyliuk, 2014; Haimovitz & Dweck, 2016; 2017; Horowitz, 2022; Kulke, 2021; Mueller et al., 2017; Phillipson, 2010; Tan, 2017; Yamamoto & Holloway, 2010). This is a psychological phenomenon known as the golem effect, defined as the negative impact on one's performance that results from low expectations (Kuhfeld et al., 2020; Kuhfeld & Tarasawa, 2020; Oz & Eden, 1994). Therefore, the research found related to student achievement and the COVID-19 pandemic may further support the concept of educational mindset proposed by the researcher as a factor related to student achievement and parental involvement (Barattini, 2017; Benner & Mistry, 2007; Haimovitz & Dweck, 2016; Mueller et al., 2017; Phillipson, 2010; Tan, 2017; Yamamoto & Holloway, 2010).

Aligned with the literature review, the purpose of this study was to examine the parental mindset (fixed or growth) of middle school students' parents to explore if there is any difference between growth mindset and fixed mindset in each of the participating school districts across three District Reference Groups (DRG) classifications. This study also investigated if there was pre-COVID to post-COVID change in student achievement.

Methodology

For the purpose of this study, the researcher has defined the concept of education mindset as the belief or expectation one has towards a school/school district's resources and ability to teach knowledge, impacting student achievement. The purpose of this study was to examine the parental education mindset (fixed or growth) of middle school student parents, investigating the relationship between parent mindset and DRG (district reference groups) classification. In addition, this study aimed to determine if there was pre-COVID to post-COVID change in student achievement. The researcher took a quantitative explorative approach to address research question (1) What is the parental mindset (fixed or growth) of middle school parents? To determine parental mindset as either fixed or growth, the researcher developed a mindset survey in Qualtrics; consisting of Dweck's (1995) Implicit Theory of Intelligence Measure. To address research question (2) Is there a significant pre-COVID to post-COVID change in student achievement SBAC scores? The researcher utilized archival data in three DRG classifications to determine student achievement, examining the 2018-2019 and the 2021-2022 Connecticut Smarter Balanced Test scores in English Language Arts/Literacy and Math using the Connecticut State Department of Education reports for proficiency level.

Participants and Setting

To eliminate class bias, the researcher examined school districts representing student populations that have differing demographics in the state of Connecticut. The participant sample consisted of grade seventh and eighth student parents from three school districts, one school district classified as (DRG B), one school district classified as (DRG E), and one school district classified as (DRG H). The DRG classification is determined by the Connecticut State Department of Education using seven indicators: three indicators of socioeconomic status (median family income, parental education, and parental occupation), three indicators of need (percentage of children living in families with a single parent, the percentage of public school children eligible to receive free or reduced-price

meals, and percentage of children whose families speak a language other than English at home) and enrollment (the number of students attending schools in that district). School districts are grouped from DRG A –DRG I; the low-need districts representing a higher socioeconomic status start with DRG A using the stated indicators, while the highest need districts are grouped as DRG I. (Connecticut Voices for Children, 2006).

To gain a better understanding of the demographics for each DRG classification, the researcher utilized the United States Census Bureau (2020) report to determine the following socioeconomic factors: ethnicity and race, parental education level, parental income, and the neighborhood average home value. The researcher examined the following socioeconomic status factors: location, ethnicity and race, parental education level, parental income, and the neighborhood average home value.

The seventh and eighth grade level was a target population due to the extensive research on growth mindset using adolescents, particularly middle school students when testing mindset (Blackwell et al., 2007; Dweck 2006; Yeager & Dweck, 2012; Yeager et al, 2019; Zeng et al., 2016). According to Dweck (2006), the transition to middle school can be a challenge for many students. "The work gets much harder, the grading policies toughen up, the teaching becomes less personalized" and "grades suffer, but not everyone's grades suffer equally" (Dweck, 2006, p. 57). Dweck referenced this student population as the age in which "many students turn away from learning" (Dweck, 2011). Therefore, to examine school districts representing student populations that have differing demographics, the researcher examined the data collected from three school districts representing various demographics: DRG B, DRG E, and DRG H.

DRG B

The participating school district classified as DRG B consisted of grade seventh and eighth student parents. The school population consists of approximately 470 seventh and eighth grade students. Based on the reported student enrollment, about 80.9% of the student population identify as white; 4.5% Asian; 4.9% two or more races; 7.9% Hispanic or Latino and 1.8% Black or African American. There are less than 1% of English language learners, approximately 14.6% of students are eligible for free or reduced lunch, and 13% of students have been reported to have a disability (Connecticut State Department of Education). The socio-economic factors for the DRG B demographic location according to the current United States Census Bureau (2020) report is as follows: the town population where the school district is classified as *DRG B* has a population of approximately 22,000 people; the median income for a household in the town of the *DRG B* classified school district is about $108,250 with a 2.9% poverty rate; the median value of a home is approximately $400,000 with 86% reported to be owner-occupied.

DRG E

The participating school district classified as DRG E consisted of grade seventh and eighth student parents. The school population consists of approximately 275 seventh and eighth grade students. Based on the reported student enrollment, about 84.4% of the student population identify as white; less than 1% Asian; 2.3% two or more races; 9.5% Hispanic or Latino and 1.8% Black or African American. There are less than 1% English language learners, approximately 28.1% of students are eligible for free or reduced lunch, and 14.8% of students have been reported to have a disability (Connecticut State Department of Education). The median income for a household in the town of the *DRG E* classified school district is about $96,000 with a 2.4% poverty rate; the median value of a home is approximately $305,000 with 86% reported to be owner-occupied.

DRG H

The participating school district classified as DRG H consisted of grade seventh and eighth student parents recruited from two middle schools. The school population for group(A) consists of approximately 540 seventh and eighth grade students. Based on the reported student enrollment, about 24.3% of the student population identify as white; less than 1% Asian; 2.9% two or more races; 60.7% Hispanic or Latino and 10.1% Black or African American. There are 16.4% English language learners, approximately 80.9% of students are eligible for free or reduced lunch, and 17.5% of students have been reported to have a disability (Connecticut State Department of Education). The median income

for a household in the town of the *DRG H* classified school district is about $58,470 with a 10.9% poverty rate; the median value of a home is $171,700 with 57.8% reported to be owner-occupied. The Census also reported that out of 60,500 town residents 74.2% identify as white alone; 9% Black or African American; 2.1% Asian; 33.4% Hispanic or Latino; and 8% two or more races. As for level of education, the percentage of residents with a bachelor's degree or higher is 21.8% with 85.8% being a High School graduate or higher.

Instrumentation: Dweck's (1995) *Implicit Theory of Intelligence Measure*

The researcher developed a Mindset survey utilizing Qualtrics consisting of Dweck's (1995) Implicit Theory of Intelligence Measure to address research question (1) Is there a significant relationship between parental mindset and the DRG classification of a parent's school district? Based on the theory of implicit intelligence, the measure consists of only three items being that the implicit theory is a straightforward concept with a particular theme (Dweck et al., 1995); and that "repeatedly rephrasing the same idea may lead to confusion and boredom on the part of the respondents" (Dweck et al., 1995, p. 269). Furthermore, Dweck et al. (1995) addressed that though there is "a disadvantage of having a small number of items in a scale is that it may lead to low internal reliability", "the high internal reliabilities of the measures we obtained across studies suggest that this is not a problem" (p. 269).

The measure uses a 6-point Likert scale: 1 = strongly agree, 2= agree, 3 = mostly agree, 4 = mostly disagree, 5 = disagree, 6 = strongly disagree. Participants will then be asked how much they agree with each statement about whether one's efforts can change their intelligence (Dweck et al., 1995). Based on the implicit theory of intelligence construct, participants with an overall score of 3.0 or below would be classified as entity theorists, having a "growth mindset" and if the score is 4.0 or above the participant would be classified as incremental theorists, having a "fixed mindset" (Dweck et al., 1995, p. 269).

The three items in the Mindset survey come from Dweck's (1995) Implicit Theory of Intelligence Measure:

1. *You have a certain amount of intelligence, and you really can't do much to change it.*
2. *Your intelligence is something about you that you can't change very much.*
3. *You can learn new things, but you can't really change your basic intelligence.*

Connecticut Smarter Balanced Test

To address research question (2) Is there a significant pre-COVID to post-COVID change in student achievement SBAC scores? The researcher utilized aggregated data collected from both the 2018-2019 Connecticut Smarter Balanced Test proficiency level report and the 2021-2022 Connecticut Smarter Balanced Test proficiency level report. The Connecticut Smarter Balanced assessments are aligned to Connecticut Core Standards in English Language Arts/Literacy and Math and are reported according to student proficiency level as either not met, approaching, met, or exceeded (Connecticut State Department of Education, n.d.). The researcher examined the following factor variables from the Connecticut Smarter Balanced Test (see Table 1) for student achievement data in three DRG classifications.

Table 1

Connecticut Smarter Balanced Test Proficiency Levels

SBAC English Language Arts / Literacy	SBAC Math
Level 1 – Not Met	Level 1 – Not Met
Level 2 – Approaching	Level 2 – Approaching
Level 3 - Met	Level 3 - Met
Level 4 - Exceeding	Level 4 - Exceeding

Quantitative Data Analysis

To provide a clearer understanding of the data analysis used, the statistical analyses is represented as follows in Table 2. To address research question (1) Is there a significant relationship between parental mindset and the DRG classification of a parent's school district? The researcher conducted a descriptive analysis utilizing data collected from the Mindset survey developed by the researcher in Qualtrics consisting of Dweck's (1995) Implicit Theory of Intelligence Measure to determine parental mindset (fixed or growth) at each participating middle school. The researcher then performed a Chi-square Test to determine if there was a significant relationship between parental mindset and the DRG classification of parents' School District.

The researcher then conducted a descriptive analysis utilizing the Connecticut Smarter Balanced Test proficiency level data for each participating school district to address research question (2) Is there a significant pre-COVID to post-COVID change in student achievement SBAC scores? To examine student achievement across DRG classification, the researcher examined the 2018-2019 and the 2021-2022 Connecticut Smarter Balanced Test proficiency level scores, conducting Non-Parametric Paired Samples Wilcoxon Signed Rank Test for both math and ELA across districts. To address research question (3) Is there a pre-COVID to post-COVID change in middle school parents' perception of school climate within each DRG? The researcher used a descriptive analysis to examine selected survey items (see Appendix D) from the parent climate survey result data from each participating school district.

Table 2

Quantitative Data Analysis Summary Table

Research Questions	Variables/Coding	Statistical Analyses
Is there a significant relationship between parental mindset and the DRG classification of parents' School District?	Survey Items DV: Parental Mindset (fixed) DV: Parental Mindset(growth) IV: DRG B IV: DRG E IV: DRG H	Descriptive Analysis *Chi-square Test*
Is there a significant pre-COVID to post-COVID change in student achievement SBAC scores?	DV: SBAC ELA/Math Level 1- Not Met = 1, Level 2- Approaching =2, Level 3- Met =3, Level 4- Exceeded =4 IV: DRG B IV: DRG E IV: DRG H IV: Year	Descriptive Analysis *Non-Parametric Paired Samples Wilcoxon Signed Rank Test*

Findings

Research Question 1: Is there a significant relationship between parental mindset and the DRG classification of parents' school district?

To address the research question (1) Is there a significant relationship between parental mindset and the DRG classification of a parent's school district? The researcher conducted a Mindset survey utilizing Qualtrics consisting of Dweck's (1995) Implicit Theory of Intelligence Measure to explore parental mindset. The descriptive percentages of school parental mindset data table is listed below.

Table 3
Middle School Parental Mindset Data Table

Mindset	DRG B	DRG E	DRG H	Total
Growth observed	10	10	11	31
% of total	5.6%	5.6%	6.1%	17.2%
Fixed observed	54	51	44	149
% of total	30%	28.3%	24.4%	82.8%
Total observed	64	61	55	180
% of total	35.6%	33.9%	30.6%	100%

Mindset

DRG B. The email invitation to participate in the survey was sent to the parents of approximately 470 7th and 8th grade students in the school district classified as DRG B, a total of 64 parent participants completed the Mindset survey in Qualtrics (Response Rate:13.6%). The mindset findings for 7th and 8th grade middle school parents (n=64) in DRG B were 91.39% fixed mindset, and 8.61% growth mindset.

DRG E. The email invitation to participate in the survey was sent to the parents of approximately 275 7th and 8th grade students in the school district classified as DRG E, a total of 61 parent participants completed the Mindset survey in Qualtrics (Response Rate:22%). The mindset findings for 7th and 8th grade middle school parents in DRG E (n=61) were 91.82% fixed mindset, and 8.18% growth mindset.

DRG H. The email invitation to participate in the survey was sent to the parents of approximately 1050 7th and 8th grade students in the school district classified as *DRG H,* a total of 55 parent participants completed the Mindset survey in Qualtrics (Response Rate:5.2%). The mindset findings for7th and 8th grade middle school parents in DRG H (n=55) were 80% fixed mindset, and 20% growth mindset.

The overall findings showed a noticeable difference between growth mindset (17.2%) and fixed mindset (83.7%) in each of the participating school districts across three DRG classifications. The researcher conducted a non-parametric Chi-square test to explore the overall findings to determine if there is a significant difference in the percentage of parents who reported either a growth mindset or a fixed mindset across the school districts assessed according to DRG classification. Based on the Chi-square test, there was no significant relationship between the scores in mindset based on DRG categorization, $r = .44$, $p = .80$ (see Table 4).

Table 4

Middle School Parental Mindset Chi-square Test

χ^2 Tests

	Value	*df*	*p*
χ^2	0.442	2	0.802
N	180		

Research Question 2. Is there a significant pre-COVID to post-COVID change in student achievement SBAC scores?

To examine student achievement across DRG classification pre-COVID and post-COVID, the researcher utilized the data collected from the Connecticut Smarter Balance 2018-2019 and 2021-2022 proficiency level report for SBAC English Language Arts/Literacy and SBAC Math, published on the Connecticut State Department of Education website.

Connecticut Smarter Balanced Test

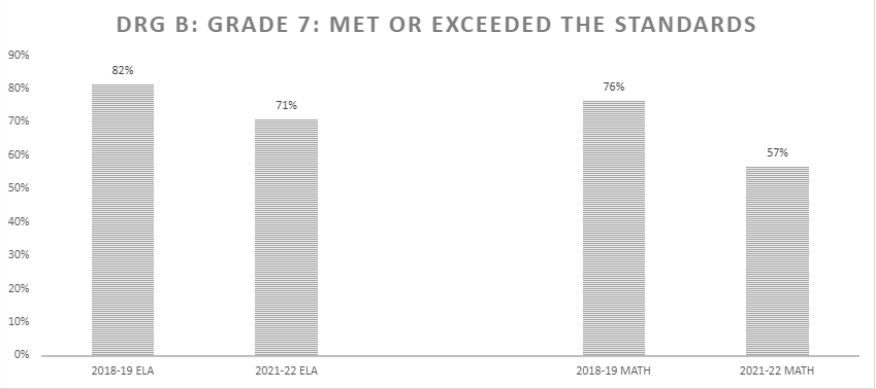
The Connecticut Smarter Balanced assessments are aligned to Connecticut Core Standards in English Language Arts/Literacy and Math and are reported according to student proficiency level as either not met, approaching, met, or exceeded (Connecticut State Department of Education, n.d.).

DRG B. The Connecticut Smarter Balanced 2018-2019 Test report for Math and ELA for student achievement in grade 7 lists a total of 271 students tested in ELA and 271 students tested in Math. The Connecticut Smarter Balanced 2018-2019 Test report for Math and ELA for student achievement in grade 8 lists a total of 304 students tested in ELA and 304 students tested in Math. The Connecticut Smarter Balanced 2021-2022 Test report for Math and ELA for student achievement in grade 7 lists a total of 241 students tested in ELA and 241 students tested in Math. The Connecticut Smarter Balanced 2021-2022 Test report for Math and ELA for student achievement in grade 8 lists a total of 219 students tested in ELA and 219 students tested in Math.

The researcher conducted a descriptive test for DRG B grade 7 to determine if there was a significant pre-COVID to post-COVID change in student achievement SBAC scores. The descriptive findings showed that there was a difference between 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 7th grade students that met or exceeded grade level in Math. The relationship indicates that the percentage of students who met or exceeded grade level for Math in the 2021-2022 school year was less than in the 2018-2019 school year. Students' scores decreased by 19% in Math. In addition, based on the descriptive findings there was a difference found between the 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 7th grade students that met or exceeded grade level in ELA. Students' scores decreased 11% in ELA.

Figure 1

DRG B Grade 7 Descriptive Analysis of the Connecticut Smarter Balanced Test Scores



The researcher also conducted a descriptive test for DRG B grade 8 to determine if there was a pre-COVID to post-COVID change in student achievement SBAC scores. The descriptive findings showed that there was a difference between 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 8th grade students that met or exceeded grade level in Math. The relationship indicates that the percentage of students who met or exceeded grade level for Math in the 2021-2022 school year was less than in the 2018-202019 school year. Students' scores decreased 11%.

However, compared to math scores, findings showed less variance between the 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 8th grade students that met or exceeded grade level in ELA. Although, the relationship indicates that the percentage of students who met or exceeded grade level for ELA in the 2021-2022 school year was slightly less than in the 2018-2019 school year. Students' scores decreased 5%.

DRG E. The Connecticut Smarter Balanced 2018-2019 Test report for Math and ELA for student achievement in grade 7 lists a total of 130 students tested in ELA and 130 students tested in Math. The Connecticut Smarter Balanced 2018-2019 Test report for Math and ELA for student achievement in grade 8 lists a total of 147 students tested in ELA and 147 students tested in Math. The Connecticut Smarter Balanced 2021-2022 Test report for Math and ELA for student achievement in grade 7 lists a total of 147 students tested in ELA and 147 students tested in Math. The Connecticut Smarter Balanced 2021-2022 Test report for Math and ELA for student achievement in grade 8 lists a total of 126 students tested in ELA and 125 students tested in Math. The 2018-2019 SBAC scores are shown in 5.1 and the 2021-2022 SBAC scores are shown in table 5.2.

Table 5.1
DRG E Connecticut Smarter Balanced 2018-2019 Test Scores

2018-2019 SBAC 7th Grade	Level 1 Not Met	Level 2 Approaching	Level 3 Met	Level 4 Exceeded
ELA	33	42	40	15
	25.4%	32.3%	30.8%	11.5%
Math	34	37	30	29
	26.2%	28.5%	23.1%	22.3%

2018-2019 SBAC 8th Grade	Level 1 Not Met	Level 2 Approaching	Level 3 Met	Level 4 Exceeded
ELA	28	34	62	23
	19%	23.1%	42.2%	11.5%
Math	30	42	35	40
	20.4%	28.6%	23.8%	27.2%

Table 5.2
DRG E Connecticut Smarter Balanced 2021-2022 Test Scores

2021-2022 SBAC 7th Grade	Level 1 Not Met	Level 2 Approaching	Level 3 Met	Level 4 Exceeded
ELA	29	50	47	21
	19.7%	34%	32%	14.3%
Math	36	47	30	34
	24.5%	32%	20.4%	23.1%

2021-2022 SBAC 8th Grade	Level 1 Not Met	Level 2 Approaching	Level 3 Met	Level 4 Exceeded
ELA	22	25	54	25
	17.5%	19.8%	42.9	19.8%
Math	36	30	22	37
	28.8%	24%	17.6%	29.6%

The researcher conducted a descriptive test for DRG E grade 8 to determine if there was a pre-COVID to post-COVID change in student achievement SBAC scores. The findings showed that there was a difference between 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 8th grade students that met or exceeded grade level in Math. The relationship indicates that the percentage of students who met or exceeded grade level for Math in the 2021-2022 school year was slightly less than in the 2018-2019 school year. Students' scores decreased by 4%.

Different from math results, findings showed an increase between the 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 8th grade students that met or exceeded grade level in ELA. The relationship indicates that the percentage of students who met or exceeded grade level for ELA in the 2021-2022 school year was slightly higher than in the 2018-2019 school year. Students' scores increased 5%.

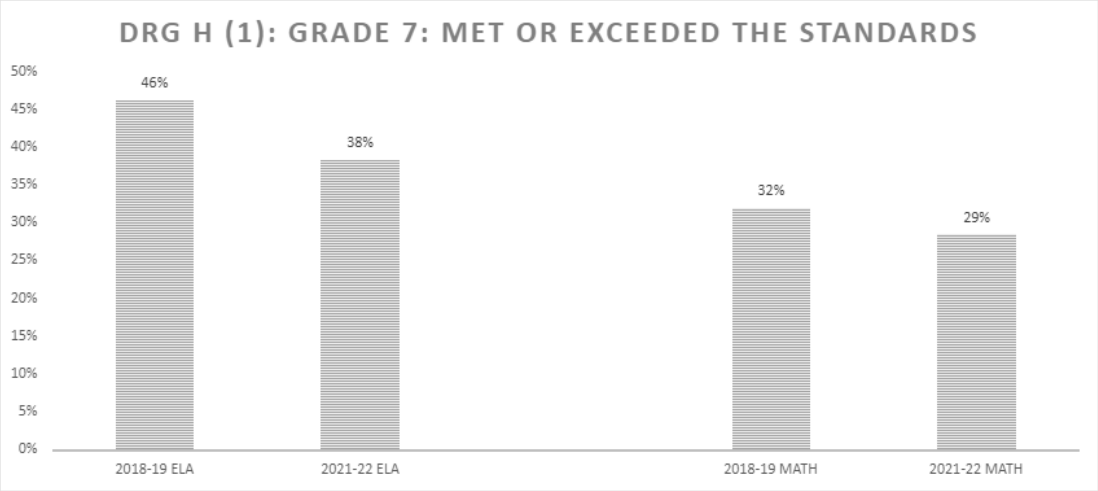
DRG H. The Connecticut Smarter Balanced 2018-2019 Test report for Math and ELA for student achievement in grade 7 lists a total of 257 students tested in ELA and 244 students tested in Math. The Connecticut Smarter Balanced 2018-2019 Test report for Math and ELA for student achievement in grade 8 lists a total of 260 students tested in ELA and 248 students tested in Math. The Connecticut Smarter Balanced 2021-2022 Test report for Math and ELA for student achievement in grade 7 lists a total of 162 students tested in ELA and 163 students tested in Math. The Connecticut Smarter Balanced 2021-2022 Test report for Math and ELA for student achievement in grade 8 lists a total of 102 students tested in ELA and 100 students tested in Math.

The researcher conducted a descriptive test for DRG H (1) grade 7 to determine if there was a significant pre-COVID to post-COVID change in student achievement SBAC scores. The findings showed that there was a difference between 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 7th grade students that met or exceeded grade level in Math. The relationship indicates that the percentage of students who met or exceeded grade level for Math in the 2021-2022 school year was slightly less than in the 2018-2019 school year. Students' scores decreased by 3%.

Similar to 7th grade math results, findings showed a decrease between the 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 7th grade students that met or exceeded grade level in ELA. The relationship indicates that the percentage of students who met or exceeded grade level for ELA in the 2021-2022 school year was less than in the 2018-2019 school year. Students' scores decreased by 8%.

Figure 2

DRG H (1) Grade 7 Descriptive Analysis of the Connecticut Smarter Balanced Test Scores



The researcher conducted a descriptive test for DRG H (1) grade 8 to determine if there was a significant pre-COVID to post-COVID change in student achievement SBAC scores. The relationship indicates that the percentage of students who met or exceeded grade level for Math in the 2021-2022 school year was less than in the 2018-2019 school year. Students' scores decreased by18%.

However, findings showed no noticeable difference between the 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 8th grade students that met or exceeded grade level in ELA. The relationship indicates that the percentage of students who met or exceeded grade level for ELA in the 2021-2022 school year was slightly lower than in the 2018-2019 school year. Students' scores decreased by 1%. Overall, there was a significant difference between 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 7th and 8th grade students that met or exceeded grade level in Math across DRG classification, $r = 1$, $p = 0.02$. The relationship indicates that the percentage of students who met or exceeded grade level for Math in the 2021-2022 school year was less than in the 2018-2019 school year.

Table 6.1
Non-Parametric Paired Samples Wilcoxon Signed Rank Test

			Statistic	*P*	Mean difference	SE difference		Effect size
2018-2019 Math	2021-2022 Math	Wilcoxon W	28.0	0.022	5.81	2.34	Rank biserial correlation	1.00

[a] 1 pair(s) of values were tied

The mean score decreased significantly in the 2021-2022 school year (M =40.1, *SD*=18.5) compared to the 2018-2019 school year (M =46.1, *SD* =22.9). The results indicate this was a significant decrease in scores, $f = 28$, $p = 0.02$. Students' scores decreased by 6%.

Table 6.2
Descriptives of 2018-2019 and 2021-2022 Math Scores

	N	Mean	Median	*SD*	*SE*
2018-2019 Math	8	46.1	39.6	22.9	8.09
2021-2022 Math	8	40.1	38.6	18.5	6.55

However, there was no significant difference found between the 2018-2019 Connecticut Smarter Balanced Test Score report and the 2021-2022 Connecticut Smarter Balanced Test Score report for the percentage of 7th and 8th grade students that met or exceeded grade level in ELA across DRG classification, $r = 0.$, $p = 1$. Although, the relationship indicates that the percentage of students who met or exceeded grade level for ELA in the 2021-2022 school year was less than in the 2018-2019 school year.

Table 7.1

Non-Parametric Paired Samples Wilcoxon Signed Rank Test

			Statistic	*P*	Mean difference	*SE* difference		Effect size
2018-2019 ELA	2021-2022 ELA	Wilcoxon W	18.0	1.000	0.1000	2.25	Rank biserial correlation	0.00

The mean score decreased slightly in the 2021-2022 school year (M =52.6, *SD* = 16.2) compared to the 2018-2019 school year (M =52.7, *SD* = 19.7). The results indicate there was no significant decrease in scores, $f = 18$, $p = 1$.

Table 7.2
Descriptives of 2018-2019 and 2021-2022 ELA Scores

	N	Mean	Median	*SD*	*SE*
2018-2019 ELA	8	52.7	44.3	19.7	6.98
2021-2022 ELA	8	52.6	46.4	16.2	5.73

Discussion

A discussion of the findings in response to the following quantitative research questions is presented in detail. Is there a significant relationship between parental mindset and the DRG classification of parents' School Districts? Is there a significant pre-COVID to post-COVID change in student achievement SBAC scores? Is there a pre-COVID to post-COVID change in middle school parents' perception of school climate within each DRG?

Research Question 1: Parental Mindset

Quantitative Research Question 1: Is there a significant relationship between parental mindset and the DRG classification of parents' School District?

The researcher assessed parental mindset across three DRG classifications. The findings reported were as follows: DRG B - 91.39% fixed mindset, 8.61% growth mindset; DRG E - 91.82% fixed mindset, 8.18% growth mindset; DRG H- 80% fixed mindset, 20% growth mindset. The overall findings showed a significant difference between growth mindset (17.2%) and fixed mindset (83.7%) in each of the participating school districts across three DRG classifications. Lastly, although the researcher found no significant relationship between the scores in mindset based on DRG categorization, $r = .44$, $p = .80$ (see Table 4), the percentage of parents with a growth mindset in DRG H (20% growth mindset) was more than double than that of DRG B (8.61% growth mindset) and DRG E (8.18% growth mindset).

According to Dweck (2000; 2006; 2011; 2017), the belief and expectation of academic ability is mindset. Fixed mindset (or entity theory) is one's belief that human attributes, such as intelligence or personality, are fixed and therefore cannot be changed (Dweck, 2000; 2006; 2011; 2017; Haimovitz & Dweck, 2017). Growth mindset (or incremental theory) is one's belief that human attributes, such as intelligence or personality, are malleable and can be changed substantially through effort (Bernecker & Job, 2019; Claro et al., 2016; Dweck, 2000; 2006; 2011; 2017; Moniz et al., 2016; Yeager et al., 2019).

Though the researcher found no significant relationship between scores in parental mindset based on DRG categorization; previous research proposes that there is a relationship between socioeconomic status and mindset. Destin et al. (2019) examined the relationships between socioeconomic status, mindsets, and student grades in a US study. Destin (2019) proposed that socioeconomic status may in fact shape a student's experiences, self-concept, as well as their view of opportunities available to them. In turn, socioeconomic status may then shape the student's mindset, which may impact academic outcomes (Destin et al., 2019).

According to Destin et al. (2019),

> The complex combination of a family's financial resources, neighborhood surroundings, life experiences, social networks, and other aspects of daily life that are related to SES appear to systematically shape the lens through which people navigate and understand their place in the world. (p. 2)

However according to Claro et al. (2016), although students from lower-income families were less likely to hold a growth mindset, those who were identified as having a growth mindset were shielded against the adverse effects of poverty on achievement (Claro et al., 2016). Therefore, students' mindsets may diminish or weaken the effects of economic disadvantage on a 'systemic level' (Claro et al., 2016).

Dweck (2006) proposed that mindset not only pertains to one's belief in ability and intelligence, but that it may also affect one's attitude towards learning. In addition, the relationship between parental attitudes and student achievement further supports that even if socioeconomic advantages are not present, parental mindset may be an overriding factor related to student achievement (Claro et al., 2016; Crosnoe & Muller, 2014; Matejevic et al., 2014; Porumbu & Necsoi, 2012). Additionally, whether a parent communicates the importance of education to their child as well as how a parent communicates with the child about their school and or subject matter may also be significant factors impacting student achievement.

There has been a question as to whether school districts and taxpayers have wasted money on growth mindset programs, and the answer may be that it depends on the buy in and implementation of not only the students, but the teachers and parents as well (Barshay, 2018; Rissanen, et al., 2021; Vercelletto, 2018). Barshay (2018) reviewed close to thirty studies that assessed the impact growth mindset training had on student academic achievement, and although some students did benefit, some did not,

> Among 29 studies tracking more than 57,000 students, some showed large academic gains. Others showed zero, or even negative academic results compared to students who didn't receive growth mindset training. Overall, when the researchers combined all the studies, students' grades or test scores tended to rise by a "tiny" amount after participating in a mindset program to persuade them that intelligence can grow. (Barshay, 2018, para 5)

Barshay (2018) proposed that although students from low-income households improved most, there was still only a small increase to academic achievement; although Barshay (2018) noted that this finding was only reported in several studies that included the socioeconomic status of students in the findings. In addition, according to Barshay (2015) Dweck proposed that although teachers might be promoting a growth mindset, they may not be changing their actual teaching practices, " "To do it right, Dweck says that many teachers have to change how they teach, offering more critical feedback and giving students opportunities to revise their work" (Barshay, 2015).

> Growth mindset theories are becoming so popular that some classrooms are festooned with growth mindset motivational posters exhorting, "Don't give up until you are PROUD" and "Every mistake you make is PROGRESS." "You can't just declare that you have a growth mindset," said Dweck. "Growth mindset is hard. Many educators are trying to skip the journey." (Barshay, 2015, "Repeating Mindset Jargon" section)

In addition, Dweck proposed that parents who may champion growth mindset may be making similar mistakes, "We're finding that many parents endorse a growth mindset, but still respond to their children's errors, setbacks or failures as though they're damaging and harmful" (Barshay, 2015).

Rissanen et al. (2021) examined in impact growth mindset programing had on Finnish elementary school teachers' pedagogy, finding that the way in which teachers internalized growth mindset and how they implemented growth mindset practices was a factor. In addition, Rissanen et al. (2021) proposed that growth mindset practices may have had the largest impact on emotional regulation, finding that growth mindset may be related to emotional learning. According to Rissanen et al. (2021), growth mindset programming may in fact "normalizing difficulties and setbacks in learning" (p.12), which may be of particular interest to many districts that are still addressing the aftermath of the COVID-19 pandemic (Bryant et al., 2023; Kuhfeld et al., 2020; Kuhfeld & Tarasawa).

Consequently, in a school system, the mindset of all stakeholders, particularly parents towards a school district may be significant and may indeed impact school climate (Deal & Peterson, 1999; 2016). For although parents continue to send their child(ren) to school every day, school districts may benefit to know exactly what perception(s) parents have of their child(ren)'s school/school district and how they may communicate said perception(s) to their child(ren). Hence, the parental education mindset phenomenon proposed by the researcher, defined as the belief or expectation a parent has towards a school/school district's resources and ability to teach knowledge, may be impacting the academic achievement of their students. Therefore, school districts may benefit from integrating questions related to mindset in the parent version of their school climate survey.

Research Question 2: Student Achievement

Quantitative Research Question 2: Is there a significant pre-COVID to post-COVID change in student achievement SBAC scores?

The findings support the projected learning loss proposed by educators at the start of the pandemic (Kuhfeld et al., 2020; Kuhfeld & Tarasawa, 2020). Thus, Kuhfeld and Tarasawa (2020) proposed the "*COVID slide*", estimating that students would return with approximately 70% of learning gains in ELA, and less than 50% of learning gains in Math, predicting that some grade levels may return nearly a year behind.

In a study consisting of approximately 5 million, 3rd grade – 7th grade students across the United States, Kuhfeld et al. (2020) proposed that socioeconomic status-based achievement gaps may be wider using the "*COVID slide*" projection. Kuhfeld et al. (2020) determined socioeconomic status using the percentage of students receiving free or reduced-price lunch, classifying low-SES (high-poverty) schools as schools with 90% free or reduced-price lunch and high-SES (low-poverty) schools

as schools with less than 10% free or reduced-price lunch. As previously noted in chapter three, the researcher sought to include school districts representing student populations that have differing demographics in the current study. The researcher examined the data collected from three school districts representing various demographics (DRG). DRG B consists approximately 14.6% of students that are eligible for free or reduced lunch; DRG E consists of approximately 28.1% of students are eligible for free or reduced lunch; DRG H consists of approximately 80.9% of students are eligible for free or reduced lunch.

Conversely, the current research findings do not support the projection that school districts classified as low-SES would result in wider achievement gaps. For, although there was a significant difference in math scores between the 2018-2019 and 2021-2022 Connecticut Smarter Balanced Test, reporting an overall decrease of 6%. There was no significant difference in ELA scores between the 2018-2019 and 2021-2022 Connecticut Smarter Balanced Test.

Findings showed a significant difference between the 2018-2019 and the 2021-2022 Connecticut Smarter Balanced Test Score, reporting the percentage of students who met or exceeded grade level for ELA in the 2021-2022 school year increased 9% from 2018-2019. Furthermore, although the percentage of 8th grade students that met or exceeded grade level in Math in the 2021-2022 school year was only slightly higher, increasing 1% from 2018-2019; the percentage of 8th grade students who met or exceeded grade level for ELA increased 5% in the 2021-2022 school year. Lastly, taking into account that according to the Connecticut Smarter Balance Test reports from 2018-2019 and 2021-2022, the DRG H participating school district, was the only school district in this study that did not see a decrease in post-COVID student achievement scores; and the percentage of parents with a growth mindset in DRG H (20% growth mindset) was more than double than that of DRG B (8.61% growth mindset) and DRG E (8.18% growth mindset), therefore parental mindset may have been a mitigating factor.

A study conducted in South Korea examined the effects of learning attitudes and risk perception toward COVID-19 on academic performance in 268 middle school students since the COVID-19 pandemic began (Lee et al., 2021). The findings indicated that during the pandemic, middle school students who were more likely to accept online instruction were able to keep their good grades from before COVID-19. Furthermore, the findings indicated that "students who had greater risk perception concerning COVID-19 were more likely to show poor academic performance since the COVID-19 pandemic began, even though they received A or B grades before COVID-19" (Lee et al., 2021, p. 6). According to Lee et al. (2021), risk perception may bring about more anxiety and stress, which may be obstacles for students. In addition, during the pandemic, risk perception toward COVID-19 may have been a factor affecting student academic performance.

To address the academic impact of the COVID-19 pandemic and lost instructional time across the state, the Connecticut State Department of Education (2021) initiated a statewide curriculum model, and allocated funding through the ARP Act to offer grant programs that enabled many districts to offer both summer enrichment and comprehensive after school programs. Though it should be noted that according to the Connecticut State Department of Education (2021),

> The statewide model curricula has been a goal of the CSDE for years and we have already started using funding through ESSER II. Our students most affected by the pandemic, including gifted and talented students, will have multiple and varied opportunities to engage, discover, and connect to challenging content designed by their teachers using highly aligned instructional materials. (p. 33)

However, as many districts continue to try to mitigate both the academic and social/emotional aftermath of the COVID-19 Pandemic, the soon to be loss of such funding will result in many of the districts that are most in need, unable to sustain the programs and initiatives they were able to put in place. Therefore, school districts may benefit from the following recommendations:

- Work collaboratively across stakeholder groups to determine how to best collect and interpret data that will help us mitigate the potential adverse impact the COVID-19 pandemic may continue to have on student achievement.

- Continue to seek out grant funding to develop new summer enrichment and comprehensive after school programs.
- To improve two-way communication between the school district and families; school districts should build relationships early in the year will establish a "we" approach rather than an "us" and "them"; building collaborative trusting relationships focused on learning related to student interests as well as what their families value learning most about by listening to what parents are seeking regarding their challenges and children's interests.
- To increase involvement and positively impact student outcomes; school districts should provide engaging opportunities for students and families to collaborate with the district, while supporting families and their needs.

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